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'It's a lonely old world': Developing a multidimensional understanding of loneliness in farming

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Abstract

This article develops a multidimensional understanding of loneliness in farming communities, based on qualitative research with the UK farming community. It presents a conceptual model of loneliness in farming and uses evidence from workshops and interviews with farmers, farm family members and farm support practitioners to explore the various ways in which loneliness is manifested and experienced within the specific context of farming environments, cultures and identities. A range of farming-specific factors commonly contribute to experiences of loneliness within this community, and we argue that these can be conceptualised as relating to three varying, but interlinking, dimensions of loneliness: social, emotional and cultural. We also discuss the role that certain elements of farming culture and identity play in shaping the ways in which loneliness is experienced and managed. Finally, we consider some of the implications of our findings and suggest priorities for action from a range of stakeholders including the government, the public, farm support organisations and

the farming community themselves. Understanding the complexities and nuances of loneliness within farming is important in order to mitigate the issue and help address wider mental health problems within this population.

KEYWORDS
farming, loneliness, mental health, social isolation

INTRODUCTION

The pervasiveness of mental health problems in agriculture is widely recognised as a major issue affecting the industry across a number of international contexts, particularly in the Global North (Bossard et al., 2016; Daghagh Yazd et al., 2019; Price & Evans, 2009; Roy et al., 2013). Farming has long been notorious for being a lonely occupation. Commonly located in rural areas with sparse populations, farmers often work alone, particularly as technological advancements and pressures to make efficiencies have reduced levels of farm labour (Lobley et al., 2019). Many also work very long hours, with little opportunity for building and maintaining social relationships (Reed et al., 2002). It is easy to see how these types of factors might lead to, or exacerbate, loneliness within agriculture.

There is growing scientific evidence of a link between loneliness and mental health disorders (Achterbergh et al., 2020; Alasmawi et al., 2020; Dahlberg et al., 2021; Wang et al., 2018, 2020), so it is unsurprising that loneliness and social isolation have been identified by a number of studies as factors commonly contributing to stress, depression, anxiety and suicide among farmers (Beautrais, 2018; Davies et al., 2019; Furey et al., 2016; Lunner Kolstrup et al., 2013; Stain et al., 2008). Few studies have focused on these issues in any great detail (exceptions include Monk, 1999), yet loneliness is not a straightforward or unidimensional phenomenon, and we argue that paying closer attention to its nuances and complexities, particularly within a farming context, is essential in order to understand its role in agricultural mental health and how it might be mitigated. This endeavour accords with assertions within the mental health literature that attending to social and cultural context is important in understanding experiences of loneliness (Achterbergh et al., 2020; McHugh Power et al., 2017).

This article, based on empirical findings from qualitative research with members of the agricultural community in England, develops a new multidimensional understanding of loneliness with reference to the specific context of farming environments, cultures and identities. In doing so, we build on existing conceptualisations of (i) social, (ii) emotional and (iii) cultural loneliness, contextualising these through an exploration of the ways in which loneliness was experienced by our research participants and the various social, cultural and economical drivers associated with these experiences. Our qualitative data also offer a deeper understanding of how different forms of loneliness can contribute to mental health issues among the farming population.

FARMING AND MENTAL HEALTH

Farming is a physically and mentally demanding occupation. While farmers are sometimes romantically thought of as enjoying a traditional 'way of life' immersed in bucolic surroundings,

the reality can be radically different and the cost of such benefits high. Elevated levels of stress, physical injury and suicide have long been reported within the industry across the developed world (Arnautovska et al., 2015; Bossard et al., 2016; Earp, 2007; Firth et al., 2007; Furey et al., 2016; Hawton et al., 1998; Roy & Knežević Hočevar, 2019; Stark et al., 2006). The issue has received particular attention in Australia (e.g., Alston, 2012; Bryant & Garnham, 2015, 2014; Peel et al., 2016; Perceval et al., 2017) and the US (e.g., Ramos et al., 2016; Ringgenberg, 2014; Roy et al., 2017) where a comprehensive body of research has highlighted the importance of understanding and addressing the nuances and complexities of a myriad of stressors affecting farmers and their families. In the UK, a spate of research in the 1990s and early 2000s similarly established the ubiquity and importance of the issue, with a particular focus on stress (Boulanger et al., 1999; Campbell, 2001; Lobley, 2005; McGregor et al., 1996; Parry et al., 2005; Phelps, 2001; Raine, 1999). Since then, however, surprisingly little research has focused on exploring and understanding the mental health and wellbeing of UK farmers (exceptions include Davies et al., 2019; Kelly & Yarwood, 2018; Lobley, 2013; Price & Evans, 2009), and a scoping review by Hagen et al. (2019) found that only 25 studies on the topic relating to the UK were published between 1979 and 2017, compared with 64 for Australia and 118 for the US. The topic is, however, now receiving renewed attention, and we are aware of several studies currently ongoing or recently completed. For instance, the scale of the problem was recently highlighted by a survey for the Royal Agricultural Benevolent Institute (n = 15,296), which found that 31% of the participating farmers in England and Wales reported being moderately or extremely anxious or depressed at the time of completing the survey (Wheeler & Lobley, 2022).

Although few studies have specifically focused on feelings of loneliness and isolation within farming, these issues have been recognised as one of the factors that can contribute to poor mental health within a variety of international farming contexts. For instance, Lunner Kolstrup et al. (2013) note a decrease in social interaction between family members and neighbours within Swedish dairy farming and feelings of isolation among migrant agricultural workers caused by cultural and linguistic barriers. Furey et al. (2016) identify lone-working and restricted access to social support among farmers in the Republic of Ireland as contributors to stress, whilst Davies et al. (2019) similarly identify lone-working and geographical isolation as limiting farmers' opportunities for wider social interaction in Wales. Further evidence suggests that loneliness is a factor contributing to depression and suicide in the agricultural sector with, for example, one-third of farm suicides in New Zealand occurring among people who lived alone (Beautrais, 2018). In a survey of UK farmers by Farmers Guardian (2020), 94% of respondents agreed that loneliness posed a risk to mental wellbeing—a perception that was recently confirmed by Wheeler and Lobley's (2021) survey, which revealed a statistically significant association between feelings of loneliness and both depression and anxiety.

As far as we are aware, until now, the only research to expressly attend to the issue of isolation in farming within the UK is that of Monk's (2000, 1999). This study surveyed rural dwellers in Great Britain, Northern Ireland and the Republic of Ireland and found isolation to be an important source of stress for farmers. Monk identifies three types of isolation as relevant to this context: physical, cultural and psychological isolations. She argues that physical isolation (i.e., remote rural locations and the associated lack of proximity to people and services) can be a more important stressor than previous work had identified (e.g., Deary et al., 1997) in areas where farms have got larger and fewer and where community services are scarce, as it can compound feelings of loneliness. 'Cultural isolation' is presented as an issue primarily relating to urban–rural migration and the presence of 'townies' creating sometimes hostile social divisions between farmers and non-farmers in rural communities (Monk, 2000). We would argue that this

particular framing slips into what Philo et al. (2003, p. 259) describe as 'stereotypical notions regarding the constitution of rural space' and 'a common tendency to lean upon more or less examined rural–urban contrasts'. As such, it does not necessarily fully align with our own interpretation of cultural isolation (which we elucidate below), but it does allude to the importance of understanding the role of farming identities in shaping certain perceptions and experiences of loneliness and social isolation: a theme we examine within this article. Monk (1999) also describes a third type of isolation—'psychological isolation'—which is essentially about farmers keeping concerns to themselves and not discussing emotional matters. She presents this as endogenous and self-imposed, stemming from a social conditioning that expects farmers to be strong, self-reliant and stoical.

Monk's (1999) conceptualisation of isolation in farming is useful and indeed has to some extent informed our own multidimensional understanding of loneliness in this context, but her assertions are not particularly well-situated within more established conceptualisations that have been developed within the wider literature on loneliness and social isolation (see below). As Lobley et al. (2004) note, there are also limitations with Monk's methodology—notably concerning the conflation of 'farmer' with 'rural' and ambiguities in distinctions between farmers and non-farmers—and this serves to weaken her arguments about the nature and impacts of isolation for farmers as a distinct social group. In part addressing these limitations, our research sought to qualitatively explore the experiences of farmers in order to help understand the specificities of farm loneliness, and in this article, we will contextualise this understanding within wider conceptualisations of loneliness, social isolation and mental health.

CONCEPTUALISING LONELINESS AND SOCIAL ISOLATION

The terms loneliness and social isolation are often used interchangeably in everyday usage (and, as Daykin et al., 2019, point out, in some academic literature) but this elision obscures important differences between the two concepts. Loneliness is generally considered to be a negative emotional state as subjectively experienced. It is commonly defined as 'the unpleasant experience that occurs when a person's network of social relations is deficient in some important way, either qualitatively or quantitively' (Perlman & Paplau, 1981, p. 31) and may be accompanied by other negative emotions such as sadness, frustration, shame or depression (Yanguas et al., 2018). Social isolation, on the other hand, is more of an objective measure relating to 'the absence of relationships with other people' (Achterbergh et al., 2020, p. 2) and can refer to either physical separation from others or restricted social networks (Daykin et al., 2019). The two concepts are not synonymous because it is possible for someone to lack extensive or regular social contact with others and be objectively considered 'socially isolated' but to be content with this situation and thus not feel 'lonely'. Equally, an individual might feel lonely even when they are surrounded by others if they do not feel understood or qualitatively connected to those people. Put simply, 'loneliness' is about more than simply being 'alone'.

Research has repeatedly shown an association between loneliness and mental health disorders such as depression, anxiety and psychosis (Achterbergh et al., 2020; Alasmawi et al., 2020; McHugh Power et al., 2017; Quadt et al., 2020). Loneliness is also associated with poorer personal recovery among mental health service users (Ma et al., 2021; Wang et al., 2020), as well as higher mortality rates and physical health conditions such as obesity and heart disease (Petitte et al., 2015; Wang et al., 2018). Causal links between loneliness and poor mental health are difficult to determine, and it is likely that pathways between the two are at least to some extent bi-directional and

mutually reinforcing. Studies have described how loneliness can exacerbate mental health problems with, for example, depressed individuals withdrawing from others and becoming (more) lonely and consequently more depressed (Achterbergh et al., 2020; Birken et al., 2022; Hsueh et al., 2019). However, recent longitudinal evidence suggests that loneliness can predict subsequent depression and other common mental health problems (Domènech-Abella et al., 2021; Lee et al., 2021; Mann et al., 2022; Wang et al., 2020), underscoring the importance of addressing the issue before it spirals into more severe health outcomes.

The distinction between loneliness and social isolation is important because evidence suggests that, whilst often connected, loneliness is more closely associated with mental health problems than social isolation. For instance, Wang et al. (2020) found that loneliness was a better predictor of symptom severity and recovery among people who had suffered a mental health crisis than social isolation. Similarly, Schwarzbach et al. (2014) conclude that, among older adults at least, subjective measures of the quality of social relationships are more closely related to depression than objective measures of quantitative aspects. In other words, it is the *self-perception* of social support that is more relevant to mental health than any external evaluation. As Perceval et al. (2017, p. 386) note when discussing the results from their study into farm suicide in Australia, 'while people around them may think the person "has it all", including strong social supports, the at-risk farmer may feel extremely alone, and indeed suicidal' (Achterbergh et al., 2020). In this article, we thus focus predominantly on *loneliness* in our analysis of farmer experiences.

Loneliness, like most emotions, is not a fixed or clearly defined state but is amorphous, fluid and temporal, potentially ebbing and flowing in accordance with other emotions, life events and everyday circumstances. For some, it may be a relatively transient experience, felt fleetingly on a difficult day or when a loved one is temporarily away, but for others it can become a constant presence and source of distress, intertwining with and exacerbating other mental and emotional difficulties the individual is facing. Nor can loneliness be understood in a singular manner. Rather, as we explore with reference to farming contexts, there are multiple dimensions to the phenomena that relate to subtly different (though often interconnecting) experiences with varying precursors, associations and implications. A number of researchers have taken after Weiss (1973) in distinguishing between two types of loneliness—social and emotional—and others include additional forms such as 'existential' (Cherry & Smith, 1993; Ettema et al., 2010; Moustakas, 1981) and 'cultural' (Sawir et al., 2008; van Staden & Coetzee, 2010; see also Monk, 1999, discussed above) in their typologies, although these are sometimes poorly or variably defined. McGraw (1995) goes as far as delineating 10 conceptually different forms of loneliness (metaphysical, epistemological, communicative, ontological, ethical, existential, emotional, social, cultural and cosmic), although stresses that these are not mutually exclusive and can interact in a number of ways. Given the multiple and contested nature of the various forms of loneliness, we set out below the way in which we understand the key ones that are discussed throughout this article.

Social loneliness

Social loneliness can be defined as 'the perceived deficit in the quality of social connections' (Daykin, et al., 2019, p. 2) and may be characterised by feelings of boredom, aimlessness and marginalisation (Weiss, 1973). It is perhaps the form of loneliness most closely aligned with the concept of *social isolation* and is sometimes similarly described in relatively objective terms as a condition framed by the quantity of social connections (Mansfield et al., 2021) or the lack of a strong social network (e.g., Yanguas et al., 2018). Heylen (2010) describes this perspective as a

deficit explanation of social loneliness and contrasts it to a *cognitive* explanation wherein, as a subjective experience, social loneliness can only be understood in relation to the individual's own aspirations regarding their social contacts. Both the deficit and cognitive perspectives are likely to be valid to some degree, although the interrelationships between the two are not fully understood (Heylen, 2010). Our own approach predominantly reflects the cognitive perspective in emphasising the importance of subjective appraisals of social integration in experiences of loneliness. It also recognises Russell et al.'s (1984) assertion that the type of social connection is similarly germane, with not feeling part of a group or lacking friendships that provide a reassurance of worth, for example, associated with this type of loneliness. We thus refer to social loneliness as the emotion arising from the individual's *subjective perception* of a deficit in the quality and quantity of social connections, which might reflect the absence of a wide or close enough social circle (i.e., number and type of contacts), but it might also reflect a lack of opportunity to regularly engage with or expand that circle (i.e., frequency of contact).

Emotional loneliness

Similarly to van Tilburg (2021), we use the term emotional loneliness to refer to the loss or absence of meaningful or intimate relationships of a close contact with whom the individual can confide in. While social loneliness results from a lack of social integration, emotional loneliness results from a lack of attachment, often in the form of a satisfactory romantic relationship, and is associated with not feeling close to anyone (Russell et al., 1984; Weiss, 1973). It is sometimes described as a more painful condition than social loneliness (Weiss, 1973), potentially involving feelings of emptiness, rejection or abandonment and is arguably more difficult to rectify, as it can be difficult and take time to build satisfying relationships even if the person has a wide group of social contacts (Daykin et al., 2019). Emotional loneliness may be present even when the individual appears to have a strong network of friends and family if those relationships are somehow deemed to be lacking in quality.

Cultural loneliness

Cultural loneliness has been used by some authors to refer to the sense of loneliness people may feel when they are in a different culture from their own or when they feel disconnected from mainstream society (McGraw, 1995). Van Staden and Coetzee (2010, p. 524) define cultural loneliness as being 'lonely while being in a foreign culture that leaves one feeling not understood and not able to reciprocate understanding about cultural meanings', while Sawir et al. (2008, p. 148) describe it as being triggered by 'the absence of the preferred cultural and/or linguistic environment'. These studies use the concept of cultural loneliness in the context of encounters with different international cultures, but characteristics such as nationality and ethnicity are not the only markers of divergent 'cultures'. In this article, the concept is used to denote feelings of loneliness arising from a sense that a cultural group with which the individual identifies (in this case farmers) is poorly understood and to some extent marginalised by the wider hegemonic society. For farmers, this might include feelings of disconnection or antagonism with members of the rural community and the wider public, similar to those described by Monk (1999). Although cultural loneliness is sometimes seen as a 'version' of social loneliness rather than a form of loneliness in itself (Mansfield et al., 2021), we argue that—whilst sometimes closely connected—it is conceptually different.

It is not the quantity or quality of social connections that is important in giving rise to this type of loneliness, but the perception of the person's culture and identity as somehow underrepresented, misconstrued or under threat that leads to a sense of isolation.

Our understanding of 'cultural' loneliness is in some ways similar to the 'existential' loneliness described by some authors in which it encompasses feelings of alienation, abandonment and of being an outsider (Mansfield et al., 2021; van Tilburg, 2021). However, existential loneliness is usually thought of as entailing a profound sense of mortality, a fundamental separateness from the wider world and a confrontation with the meaning of life as an individual, often following trauma or when faced with a critical illness (Bolmsjö et al., 2019; Ettema et al., 2010; Sand & Strang, 2006; Sundström et al., 2018). This is in contrast to the cultural loneliness we describe, in which some farmers feel a sense of communal isolation and alienation in relation to the wider non-farming public. Where existential loneliness 'has no permanent remedy according to the phenomenological approach' (van Tilburg, 2021, p. 2), cultural loneliness might be addressed by, for example, improving connections and understandings between different social groups. We do not explore existential loneliness in significant depth in this article because it did not emerge as a strong theme within our interviews (which focused specifically on farming-related aspects of loneliness) and is arguably less uniquely tied to the farming context. We do, however, recognise that it is another dimension of loneliness that may be experienced by some farming individuals, particularly towards the end of life, during illness or following particularly traumatic events.

LONELINESS IN FARMING: A CONCEPTUAL MODEL

The ways in which social, emotional and cultural loneliness play out for individuals will naturally depend on the specificities of their situation, as well as their own personal and emotional responses to those specificities. However, building on existing literature as well as our primary research, this article identifies a range of farming-specific factors that commonly drive social, emotional and cultural loneliness, and that deserve attention in efforts to mitigate loneliness and related mental health problems within the farming community. These factors are summarised in Figure 1, which presents a new conceptual model bringing together the various dimensions and drivers of loneliness identified as particularly pertinent to a farming context in a way that has not been done previously (note these are intended as exemplary rather than exhaustive).

As Figure 1 seeks to convey, the different dimensions of loneliness do not exist in isolation from each other but (as McGraw, 1995, also stresses) are commonly overlapping, iterative and not always easily distinguished from one another, particularly on the basis of contributing factors alone (van Tilburg, 2021). For instance, feelings of social loneliness associated with a heavy workload and lack of opportunities for social interaction might also be accompanied by emotional loneliness, particularly if, for example, a lack of leisure time is also affecting family and personal relationships. Similarly, feelings of being disconnected from the wider community and public (i.e., cultural loneliness) might be exacerbated for someone who is also experiencing family or relationship difficulties and who does not feel they have a close confidant (i.e., emotional loneliness). Underlying all of these processes are certain elements of farming culture and identities that influence the way in which both the drivers and forms of loneliness are experienced and managed on an individual basis. These include a range of issues we will touch on in this article, such as attitudes to farming and 'hard work'; traditional gender roles; familial expectations around inheritance, succession and contributions to farm work and ideas around stoicism, strength and self-reliance in the construction of (particularly masculine) farming identities.
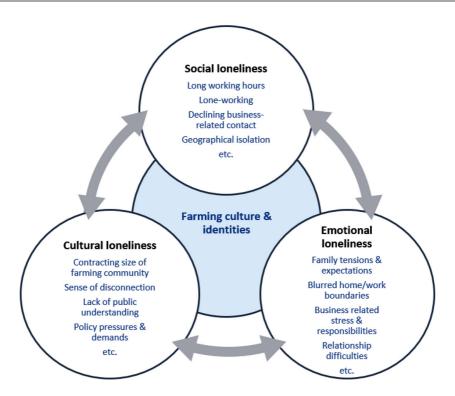
FIGURE 1   A conceptual model showing key dimensions and drivers of loneliness in farming

As the above discussion demonstrates, our framing of loneliness as multidimensional is not an entirely new one. Our original contribution lies in developing an understanding of these different types of loneliness within the specific context of farming environments, cultures and identities. Following an explanation of our research methodology, we explore some of the characteristics and drivers of social, emotional and cultural loneliness within farming that emerged in our analysis. We also discuss the role of farming cultures and identities in shaping certain aspects of common experiences of loneliness and consider the implications of our findings for how loneliness—and related mental health problems—might be further mitigated and addressed within this community.

METHODOLOGY

The research on which this article is based was a partnership project led by the Centre for Rural Policy Research (CRPR) in partnership with the Farming Community Network (FCN) and funded by the Loneliness and Social Isolation in Mental Health Research Network (which is funded by UK Research and Innovation) and The John Oldacre Foundation. The CRPR and FCN teams worked closely throughout the research process, with the lead researchers drawing on the farm support organisation's networks and expertise in order to inform the design and delivery of the project. The research was reviewed and approved by the University of Exeter's College of Social Sciences and International Studies Research Ethics Committee.

The first phase of the research involved an online workshop, held in December 2020 and attended by 11 farm support practitioners (in addition to two facilitators from each of the research

T A B L E   1   Farming interviewee characteristics

Respondent/farm characteristic	Interview sample (N = 22)
Gender	13 men
	9 women
Age	5 < 40-year-olds
	8 40- to 59-year-olds
	9 60- to 79-year-olds
	Range 19–79 years old
Farm type	8 beef/sheep
	6 dairy
	6 mixed
	2 arable
Farm tenure	14 wholly/mostly owned
	6 wholly/mostly rented
	1 equally owned/rented
	1 other (farm worker)
Geographic location (England)	13 South West
	3 South East
	3 North West
	1 North East
	1 Eastern
	1 Midlands

partner organisations). The discussions identified key issues relating to loneliness, social isolation and related mental health problems in farming communities and explored priority themes to investigate further in the research interviews. The outcomes also helped inform the design of the subsequent semi-structured interview schedule.

Following the workshop, 28 in-depth, semi-structured interviews were conducted with farmers and other members of farming families who had either directly experienced loneliness and/or related mental health problems themselves, or who had supported others facing these difficulties. The interview approach was loosely structured in order to gain rich and meaningful insights by allowing participants to talk about their experiences on their own terms and in their own words. Interviews were conducted by telephone or video call (according to participant choice) between March and July 2021. Participants were recruited via a purposive, non-probability sampling technique that does not seek statistical representativeness but instead selects cases of particular interest to the research (Creswell & Clark, 2011; Schutt, 2004). Some of the farming interviewees had previously received support from FCN, who directly invited them to participate in the research, and others volunteered to take part in response to an invitation email that was sent to existing CRPR contacts. All interviewees were offered the opportunity to view their transcript before the analysis commenced in order to check and confirm the details of the conversation. Farmer/farm family member participants were also offered a £15 voucher of their choice to compensate them for their time.

In total, 22 farmers and other members of farming families, as well as six farm support practitioners, were interviewed as part of the research (although note that these are not mutually exclusive categories, as four of the farm support practitioners had a farming background, and two of the farming interviewees also had experience as volunteer farm support workers). Farmer/farm family member interviewee characteristics are shown in Table 1.

Detailed demographic data were not collected for the six farm support practitioner interviewees, but five were females and one was male. These individuals represented three separate organisations.

As befits a qualitative study, the interview sample was not intended to be representative of the farming population, although we did make efforts to recruit a variety of ages and genders and were successful in doing so. The sample was intentionally skewed towards farms with livestock enterprises (which make up 61% of farms in England[1]) because previous studies indicate that these types of farms face particular issues in terms of challenging economics and high levels of stress (Boulanger et al. 1999; Lobley et al., 2019; Parry et al., 2005; Winter & Lobley, 2016), suggesting they deserve particular attention when considering mental health problems. Furthermore, livestock farms, on average, have fewer people working on them than arable farms (2.73 compared to 3.09, respectively), and livestock farmers, spouses and other business partners spend more hours working on the farm on average than those with cropping enterprises[2], potentially reducing opportunities for social contact at work and time for social activities. Notwithstanding this focus, some participants from mixed and arable farming areas were also included (and farm support practitioners were also asked to consider arable farms) in order to provide a degree of a wider perspective. Geographically, there was some bias towards farms in the South West of England in the sample due to a combination of the research team's existing contacts in the region and pre-pandemic limited resources to support extensive travel to farms.

Interview data were initially analysed through a thematic content analysis approach (see Braun and Clarke, 2006), using NVivo as a tool to organise the material into meaningful themes that could be further refined and interpreted within the framework of the research aims and objectives. A critical realist approach was applied, in which observable themes in the data were interpreted in relation to the forms of loneliness discussed in existing literature whilst also informing the development and refinement of the conceptual model presented above. Analysis was an iterative process in which initial strands of inquiry were identified, before being reviewed and in some cases deconstructed, recoded and interpreted in relation to both the emergent evidence and existing knowledge. Feedback on the preliminary research findings was invited from all participants and other relevant stakeholders via an online workshop (25 participants) and circulation of a draft summary research report in October 2021. This process was considered to be important for ethical integrity and enabled the findings to be ground-truthed. All comments received were positive and confirmed that these participants felt the findings to be a good reflection of the issues they had discussed in the interview.

Although developed and funded prior to the existence of coronovirus disease 2019 (COVID-19), the research project ran from September 2020 to October 2021 and, as such, was conducted in the midst of the pandemic (although research activity did not take place during the national lockdowns). This was a very particular time, involving increased isolation for many people and the influence of this was something that had to be considered throughout the analysis. It was also a topic that was covered in many of the interviews. Whilst some participants talked about how they had experienced loneliness during the pandemic and about how restrictions may have exacerbated loneliness for some farming people, for the most part, the issues discussed were not specifically related to COVID-19. Rather, they were considered to be ongoing features of farming lives and occupations. The key research findings and understandings of loneliness within agriculture developed in this article are, therefore, considered to remain pertinent beyond the specific temporal context of the study.

RESULTS AND DISCUSSION

Social loneliness in farming

Social loneliness is perhaps the most discernible form of loneliness relevant to farming contexts and we identified a number of farming-specific factors that commonly contribute to it. In line with other research describing a paucity of time for leisure/social activities in farming (Lobley et al., 2005; Wheeler & Lobley, 2021), participants described feeling unable to socialise in order to either satisfactorily maintain existing friendships or build new relationships due to several physical and practical restraints associated with their farming life. The most prominent among these was the notoriously long hours involved in agricultural occupations, often combined with lone-working. Farmers and farm workers can find themselves rising before dawn and working until late at night to get tasks completed, especially at certain times in the farming calendar such as lambing or harvest when there are significant time pressures and little flexibility. As one participant explained, this can leave little time—or energy—for social activities:

> I don't get time to socialise really because I am just too busy. The animals, obviously, need looking after, and then at night time, there is dinner to cook and you are just knackered, so you don't really want to go out anyway. (Farming woman, age 50–59, ID17)

These work-related pressures can be ever-present in the minds of farmers, making it both practically and mentally difficult to take time away from the farm to connect with others. This hinders the ability to feel part of, and 'tuned in' to, a friendship group: something Russell et al. (1984) identify as important in mitigating social loneliness. Even where the individual has friends, this limited social time can lead to a sense of being 'left out':

> It's always quite hard to finish and not feel guilty because there's always something else to do. Which then, inevitably you miss social events and everything else because you prioritise work over that and then that doesn't help with the feeling out of the loop and being a bit socially left out. (Farming man, age 30–39, ID15)

Social loneliness in farming is thus not always about the presence or absence of quality social relationships per se (although it can be, particularly for farmers who live alone) but can arise from the sheer amount of time spent working—often alone—and feeling deprived of the opportunity to spend sufficient time with friends or family. For instance, one farm support practitioner talked about her husband's previous experience of loneliness (and mental health problems) when working as an agricultural contractor:

> When the children were growing up my husband very much felt, well [he says] 'I didn't see the children grow up because I was working 7 days a week, 12/14-h days or on call or whatever it might be'. And you just sat there on a tractor or working in fields quite a distance away and so that really does affect you even if you have got that family back at home. There is nothing to compensate for all those hours on your own with your head and feeling that you are missing out and there is nothing to complete your life. (Farm Support Practitioner 6)

The implications of working alone for experiencing loneliness implied here were reflected in a number of other participants' stories. Lone-working was widely believed to have increased over the last few decades, largely as a result of farm labour changes driven by mechanisation and agricultural restructuring[3]. By reducing the amount of day-to-day social contact, lone-working can also contribute to work-related stress, as it leaves little opportunity for discussing issues and collective problem-solving:

> The reason [loneliness is] such a big problem is, I look at my peer group of friends and a lot of those are in groups which can discuss different issues, but when you're here on the farm, you've only got yourself. It's difficult to canvas those type of things and also it's kind of quite difficult when you're making decisions and that type of thing. Sometimes it's a good idea to bounce ideas off others. (Farming man, age 50–59, ID7)

Work-related stress can therefore be exacerbated by social loneliness but was also considered to be one of the primary drivers of it, as farmers are often driven to work harder and longer in order to maintain business viability in the face of low financial returns. Accordingly, one dairy farmer talked about how difficult it was to take a break from his work:

> It's difficult to get off the farm, it can be a bit of a tie. There is not enough profit in dairying to pay for more labour or to contract any jobs out to others, so it's hard to get off the farm, as there's no way of covering my work. Myself and my father work around 70–80 h a week on average… For myself and my father to work the 'normal' 35–40 h week that most other people work and get weekends off and 28 days holiday— which is an absolute pipe dream for us as far as I'm concerned—we'd need to employ at least one more full-time and another part-time staff member. I can just never see that time off. (Farming man, age 30–39, ID14)

There are clearly practical and economic imperatives that drive farmers to work hard in order to ensure a viable farm business (Lobley et al., 2019). However, our findings indicate that cultural notions around the importance of hard work also play a role in influencing attitudes towards working long hours within the farming community. 'Hard work' is recognised as a central tenet of Western agrarian ideology, which celebrates the hardship of farm work as a moral virtue (Egoz et al., 2006; Montmarquet, 1989). Agrarian sentiments have been traced back to the classical era (Montmarquet, 1989) but arguably grew particularly strong in the 17th century onwards, when hard farm work and resultant yields became associated with Protestant values around 'God helping those who help themselves' (Egoz et al., 2006). A strong work ethic thus became a key part of traditional farming culture and continues to form a central element of farming identities today (Silvasti, 2003). Evidence from our interviews suggests that the emphasis placed on the importance of hard work in farming culture can serve to normalise and legitimise long hours to the extent that working constantly becomes seen almost as a 'badge of honour'. As one farmer explained:

> So everybody has this image of farming being isolationist. Farmers make it isolationist. I mean okay yes, you're working on your own, but I suppose I've always made sure I've had some leisure time… We had a contractor come in here one day, he's an ex Young Farmer I've known all my life, and he said 'I've been sitting on this tractor for 43 days drilling corn for everybody, isn't that good?' I just said 'no, that's really

sad. That's really sad. At least take a couple of days off'. (Farming man, age 60–69, ID18)

Whilst this farmer actively resisted this element of farming culture and placed importance on taking time off, many find this difficult and not just for the practical reasons discussed earlier. One woman described the attitude of her in-laws towards farm work as

And then you have got the likes of my husband's family. If you have an hour off, it's a sin. (Farming woman, age 60–69, ID6)

This participant's use of the word 'sin' here may not have been intended literally, but (resonating with the biblical aspect of agrarian ideology that equates hard work with moral virtue) it does invoke a sense of guilt in relation to taking time off and demonstrate the strength of cultural and familial expectations in influencing attitudes to work.

Aside from workload pressures and leisure time, a number of participants talked about how opportunities to engage with existing social networks have also reduced in recent years because of a decline in the frequency of face-to-face business-related contact (and not just because of the COVID-19 pandemic). Where farmers used to be able to partially compensate for a lack of off-farm social activities through day-to-day contact with visitors to the farm (e.g., buyers and suppliers, advisors, etc.), this is now more difficult as more business is conducted online. The closure of many local livestock markets, which have been shown to be important social hubs associated with considerable wellbeing benefits (see Nye et al., 2020), was also cited as reducing opportunities for livestock farmers to socially interact with others. Moreover, a simple reduction in the numbers of farmers and farm workers over the years (partly due to a consolidation of farms into fewer, larger units; see Lobley et al., 2019) has further contributed to declines in farmer-to-farmer contact. As one participant described:

When I was a student, I got a job on a farm that was about 2000 acres, and there was about a dozen people working there, so there were always people around to interact with, chat with and that sort of thing. There were things like livestock markets as well, where you met your colleagues, you talked over hedges, basically because there was more of you… you just don't see anybody else from your own profession anywhere near as much as you used to. (Farming man, age 60–69, ID10)

Such reductions in work-related social contact may be exacerbated in coming years as the industry becomes increasingly digitalised under the 'fourth agricultural revolution' (Barrett & Rose, 2022), although exact implications for labour demand are currently unclear.

Geographical isolation can also play a role in social loneliness for farmers and their families, particularly where they are located in remote rural areas with poor transport and telecommunications infrastructure. Previous (primarily quantitative) studies in the UK have drawn mixed conclusions about the relevance of physical isolation in farming contexts, with some finding it to be an important stressor (Campbell, 2001; Raine, 1999) but others less so (e.g. Deary et al., 1997; for a more comprehensive overview, see Lobley et al., 2004). We cannot claim to be able to assess the *extent* of physical isolation as a problem for farmers from our research, but our findings do suggest that it can be a significant factor in experiences of loneliness for some people. It is perhaps particularly relevant for young people on farms (whether directly involved in farm work or not) who do not necessarily have access to private transport and whose peers are socially active,

both in online and face-to-face formats. This was evident in the story of one young woman who talked about how geographical isolation made it more difficult for her to deal with her anxiety and depression:

> It is difficult to deal with because being on a farm in the middle of nowhere… you are out on a limb in agriculture and everyone says that, you know, you've got the Internet and everything, but the Internet is rubbish. You can't quickly send a message to someone, you can't call someone because you won't have a signal, and there are so many hurdles in order for you to get anywhere, both physically and mentally. It just really takes its toll and just slowly grinds you down. (Farming woman, age 18–29, ID21).

Whilst physical isolation might not cause wellbeing issues on its own and is sometimes cherished as a positive feature of rural life offering peace and tranquillity, it can contribute to creating or exacerbating a sense of social loneliness.

As well as the practical limitations associated with geographical remoteness, social loneliness can also be exacerbated for members of farming families by other aspects of farm life. For instance, participants told us about how children are often expected to help out on the farm from a young age (as also observed in the literature, e.g. Errington & Gasson, 1994; Riley, 2009; Wallace et al., 1994), reducing opportunities for social interaction, especially with non-farming peers. Participation in farm (and house) work has been described as an important part of the socialisation of farm children (Wiley et al., 2005), a process through which culturally specific moral values, social conventions and future farming roles are learned (Price & Evans, 2009). The farm space offers positive opportunities as well as limitations for children (Riley, 2009), but our participants' narratives hint at the risk of loneliness becoming embedded in farm lives through this socialisation process in which farming takes centre stage and social activities are sidelined. Evidence and understanding regarding this are, however, limited, and further work exploring the potential influence of (often gendered) socialisation processes on experiences of loneliness, both in childhood and later adulthood, is needed.

Farm spouses can also feel profound loneliness. Whilst arguably beginning to change, traditional gender roles and expectations in farming continue to persist within the community (Burton et al., 2021; Shortall et al., 2020; Wheeler et al., 2020), with women commonly primarily responsible for childcare and household tasks (often alongside dealing with farm paperwork, working on the farm and/or involved in diversified enterprises or off-farm employment). If their partner is out working long hours every day, women can therefore find themselves 'stuck' at home juggling multiple roles, perhaps with only young children for company. A number of participants discussed this issue. For example:

> Oh God yes [it can be lonely for the women]. The farm just sucks the men. And because women are women, they go out and they are just, you know. They get frustrated because when they meet their husbands [the women] are off on the tractor and doing whatever, but once you start to have children, your flexibility isn't there, you can't do it. There is a lot of lonely women out there with little kids… believe me it is not easy being a farmer's wife. (Farming woman, age 60–69, ID6)

The impacts of such loneliness on the wellbeing of farming women can be significant, yet dominant narratives about mental health in farming (and farm identities more generally, see Burton

et al., 2021) have tended to focus on male farmers rather than female farmers or spouses (Daghagh Yazd et al., 2019). The accounts of women relayed to us in our research are, however, unsurprising when viewed in relation to recent evidence of high levels of anxiety and depression among farm women (Wheeler & Lobley, 2022). These findings clearly demonstrate the need for further attention to be paid to this topic.

Emotional loneliness in farming

Emotional loneliness concerns the quality and intimacy of social relationships and many of the circumstances that might contribute to it—for example, relationship tensions and marital breakdown, the loss of an intimate partner or personal difficulties with forming emotional attachments (Mansfield et al., 2021)—are not particularly unique to farming populations. We did, however, find that there are certain elements of farm life that were related to emotional loneliness within our participants' stories and that shaped the nature of these experiences.

Wider research has established a link between living alone or not being married/partnered and loneliness (Gibney et al., 2019; Smith & Victor, 2019; Sundström et al., 2009), and we certainly heard stories where this was the case for farmers, but there were also examples of where individuals felt lonely even when surrounded by family or when in an apparently 'happy' relationship. The entwined nature of home and work life in family farming (see also Price & Evans, 2009) emerged as placing a particular pressure on individuals who do not feel able to confide with their spouse or other family members, as the burden of responsibilities and decision-making can sometimes fall unequally, complicate family life and add to a sense of emotional loneliness. As one woman explained:

> You have a massive bill come in and you sort of think oh my God how am I going to pay that? I mean my husband doesn't take any notice and just leaves the worrying to me. So I feel quite alone in my own right when it comes to that… I mean somebody phoned up just now and was quite unpleasant and I thought, 'I've got nobody to confide in' because he wouldn't listen. (Farming woman, age 60–69, ID2)

The value of being able to jointly make decisions about the farm business with a spouse or partner was also evident in the story of one woman whose husband had died a few years previously. She described how, despite having a supportive family, she felt lonely because she missed her husband 'dreadfully' and having to make farm-related decisions on her own could bring that feeling to the fore:

> I'm living alone now but it's just things like decision-making. I mean I still have big decisions about the farm because we've got a private water supply[4] and, you know, so there are lots of issues that I think oh, if only he was here and we could sort it together. (Farming woman, age 70–79, ID1)

The loneliness engendered by the weight of business-related responsibilities was also felt by one participant despite having a strong relationship with his wife and children, as he felt solely responsible for maintaining the health of the business:

I think it's the loneliness within the business. You're stood in the yard doing your work and you're on the tractor, all the management decisions come to me. No-one else... So everything that goes right is my achievement and everything that goes wrong is my problem... I spend most of the day on my own, but I wouldn't say it's the loneliness in itself that gets me down, it's probably the loneliness within the context of the business. The pressure comes to me on my own and I have to deal with everything on my own. (Farming man, age 40–49, ID11)

One farm support practitioner said that this feeling of not being able to confide in spouses or family members about farm-related issues (even if close to them), was quite common among the farmers that she had supported and was often connected to a sense of shame, guilt or fear of 'letting people down' if things are going wrong with the farm. Family members can sometimes be the most difficult to share problems with in this context, 'especially if you feel that you're the provider, the person that has to be the strong person in a situation' (Farm Support Practitioner 3). Strong expectations around succession, keeping the farm in the family and not being the generation that 'fails' (Price & Evans, 2009) likely add to this sense of personal burden and further limit feeling able to confide in family members.

The risk of emotional loneliness might also increase where there are relationship difficulties or tensions within families, and this can be particularly difficult in family farming where the boundaries between home and work are blurred and where there may be several generations living and working together, often in stressful business situations. We heard several stories, for instance, of siblings who had fallen out with each other and of people feeling trapped living with in-laws or other extended family members with whom they had a difficult or unhealthy relationship. Issues and pressures around succession, inheritance and the future of the farm can also restrict options for making alternative living arrangements, strain relationships and lead to individuals feeling unable to fully confide in family members. For instance, one participant talked about how such issues had made it difficult for him to emotionally connect to family members, contributing to feelings of loneliness during a particularly difficult period of his life:

I don't feel the loneliness like I used to, but I know when I first started, when you're working with your family, you kind of lose some of that family support because farming takes over all the family time. So I did feel quite lonely at times, especially when you've broken something and you're getting an earful from your dad and then you go home because you're living with your parents still. It was quite a tough time I suppose. (Farming man, age 30–39, ID15)

Close friendships might provide the support necessary to mitigate such emotional loneliness, but these too can be difficult to draw on, particularly where issues relating to social loneliness (as described above) are at play. Emotional loneliness can also be interconnected with social loneliness in that the lack of time and opportunity for social activities can make it difficult to form intimate relationships (whether romantic or platonic) in the first place. In one of the most hard-hitting stories told by our participants, one man talked about how he had previously made an attempt to take his own life. A whole host of factors had contributed to him feeling such despair, including business difficulties, debt and a family dispute, but amongst these was a sense of loneliness brought about partly by the lack of an intimate partner in his life, which he attributed to both a shyness with women and the hours that he worked:

At that point in my life, I just couldn't see anywhere to go basically. Because all I was doing back then, I was working on average I reckon 15 to 18 h a day… I'd be sitting on the tractor seat all day trying to earn money to keep the business afloat to go forward… The only reason I've ever got relationships in my life is if somebody comes and works for me and they get to know me. But if I go to the pub, which I used to do a lot, I wouldn't talk to nobody. I'd talk to my mates but to actually go up and talk to a girl, just impossible, I just couldn't do that bit… And the other thing was, no females wanted to be with somebody that was working 18, 20 h a day. Nobody wanted to be in that sort of relationship where, you know, you could be at 8 or 9 o'clock and all they want to do is sit down and cuddle up to you for the evening, and they can't because you're at work. (Farming man, age 40–49, ID5)

Emotional loneliness might also be exacerbated by a reluctance to talk about mental health issues, which many participants believed to still be a taboo subject within farming. In line with a considerable body of literature exploring the influence of rural masculinities on male farmer health (e.g. Alston & Kent, 2008; Bryant & Garnham, 2015; Creighton et al., 2017; Roy et al., 2017), there was a strong sense among interviewees that stereotypes of the 'stoic farmer' continue to ring true in many cases. The pressure of having to 'have an image of being strong and nothing will phase you' (Farm Support Practitioner 2) was believed to make male farmers in particular reluctant to share their emotions and ask for help from those around them. As one farming man put it: 'We are insular, bloody-minded, very secretive sometimes about what we do. We think we can do it all ourselves, we have always done it' (Farming man, age 60–69, ID8).

In some respect, these perspectives resonate with Monk's (1999) description of 'psychological isolation' in farming as a phenomenon stemming from a cultural value system that valorises 'strength' and self-reliance and discourages the sharing of problems (i.e., stoicism). However, we would question whether stoicism creates a distinct form of 'self-imposed' loneliness in and of itself. Rather, we contend that these cultural values tend to act alongside other social, cultural and economic factors to exacerbate other forms of loneliness (particularly emotional loneliness) by reducing opportunities for discussing emotional and mental health issues and seeking help.

Cultural loneliness in farming

In line with much sociological work on agriculture (e.g. Burton et al., 2021; Gray, 2000; Pretty, 2013), we deem the farming population to be a distinct cultural group with farming being crucial to the construction of identities among this community, and this was certainly evident within participant narratives around loneliness. The concept of cultural loneliness, whilst not always recognised as a distinct dimension of loneliness in its own right, appeared to be particularly relevant in the farming context. Cultural loneliness refers to feelings that arise from a sense of difference with others in the wider community, perhaps feelings of being an outsider or being misunderstood by other cultural groups. This type of loneliness repeatedly emerged in participants' stories, with many farmers describing or alluding to a strong sense of disconnection with the wider public, and of feeling undervalued and misunderstood by government and society.

The cultural connection that farmers and farming families feel with other farmers can entrench the sense of isolation caused by simple reductions in the number of farmers and farm workers (as discussed inunder 'social loneliness in farming' above). The gradual departure of farming families

from a rural community can create a sense of loss and aloneness for those farmers that remain, regardless of other social connections they may or may not have. As one woman explained:

> It is a bit like my dad says, in the village, he is in all of the old farming families have gone. It's just him and another farming family and that is all that is left, and it is just, yes, I would almost say that he feels a bit on his own. Even though he likes to work on his own and he likes that environment. But he hasn't got that bigger, wider kind of connection across the village. (Farming woman, age 40–49, ID22)

Associated with this idea of farmers being alone within rural communities is the changing nature of rural populations and a perceived divide between farmers and non-farmers. One farm support practitioner talked about how she had supported farmers in one area where an increase in the local population (following a large housing development) had led to farmers feeling more isolated because of complaints they received about aspects such as noise from cows and tractors. In her view, 'that lack of understanding and that lack of acceptance of [the farming] way of life actually led them [the farmers] to feel more isolated than they ever had, even though there were more people there' (Farm support practitioner 3). Another participant described his own experience of these issues:

> I think the other loneliness that affects farmers is the community loneliness. In the local village, the demographic has completely changed in the past 20 years. And you get sly comments or something from a footpath walker or you quite often get, I call it abuse but it's not abuse, someone flicking you the Vs on the road, or beeping their horn because you're in the tractor going from A to B. So you get the sense that the local community isn't really your best friend. You feel a bit of an alien on your own doorstep. (Farming man, age 40–49, ID11)

These narratives resonate with Monk's (2000) description of cultural loneliness in farming as arising from conflicts between rural dwellers and 'urban' incomers, although we would argue that it is about a more nuanced disjuncture between farming and non-farming people rather than a rural/urban dichotomy. For many within the farming community, the disconnection arises partly from the perceived inability of non-farmers to appreciate the unique nature of farming life and the challenges inherent to it. As one participant put it: 'there is always the undercurrent of the loneliness in farming anyway because most people don't work the hours. They don't understand the life unless they live it and breathe it' (Farming woman, age 40–49, ID3). Furthermore, many of our participants talked about feeling misunderstood and undervalued not just by their local community but by the general public as a whole. In part, this was associated with a widespread impression that society is increasingly expecting more from farmers, yet farmers receive little financial return for their product and remain at the whim of supermarkets and the demand for cheap food. The pride that farmers once felt as producers of food (which has traditionally been central to the construction of farming identities; see Burton, 2004) and as pillars of their local community appears—for some at least—to be deteriorating, replaced by a sense of being overlooked and underappreciated by society. As one participant explained:

> The thing that makes me feel a bit lonely and down is that I've worked hard for the last 30 years to invest in the business, we try to be the best in class, only to find out that realistically however hard you work, you can never really get a fair return for your

endeavour… I don't understand what people want from British agriculture anymore. That's what makes me feel a bit lonely and a bit sad really. (Farming man, age 50–59, ID7)

These feelings of cultural loneliness can be compounded by public and policy pressure around the environmental impacts of farming, as well as regulatory demands and inspections, which can make some farmers feel unfairly scrutinised and marginalised by hegemonic society. For instance, one participant talked about how the cumulative burden and stress induced by various legislative requirements, farm assurance assessments and regulatory inspections exacerbated his feelings of isolation:

When you are farming and you are alone, you have got time to think and your mind is a very, very powerful thing, and the results are either good or bad. It goes around in circles and then, the next thing you are thinking, 'who else is going to turn up… what official is going to turn up next? Who is going to be on the phone or what mistake have you made?' … there is such pressure from the government, DEFRA and the public… they have so much to say on how the farmer should carry on. And, to me, that just brings loneliness because you feel so isolated and so helpless. (Farming man, age 70–79, ID 4)

The issues discussed here are not new. The disconnection between farmers and the public has been discussed in the academic literature for at least two decades (Campbell, 2001; Lobley, 2005; Monk, 2000; Phelps, 2001) and yet it appears little has changed. If anything, pressures to improve the environmental performance of farming have increased the exposure and sensitivity of farmers to negative media coverage of the issues and critical public opinion. The COVID-19 pandemic highlighted the role of farmers as 'essential workers', and it is possible that this may have led to some farmers feeling more valued for their work, but the longevity of such heightened appreciation is not clear, and it is not a theme that emerged from our interviews. Regardless, there has been scant research into the actualities of public perceptions of farming (either pre- or post-COVID), and given the implications of these for feelings of cultural loneliness among farmers, this issue deserves greater attention in future.

It is likely that a degree of cultural loneliness also exists within the distinctly heterogeneous social group collectively referred to as 'farmers', and this also warrants further investigation. It is easy to imagine how some farmers might feel isolated from more dominant farming groups with differing views to their own; for instance, if they perceive their traditional approaches or experiential knowledge as being marginalised amid the proliferation of new agricultural technologies (Rose et al., 2021). Although not discussed by our participants, the potential for such within-group tensions, and implications for loneliness, are important to understand and address in future.

IMPLICATIONS AND CONCLUSION

Agriculture is characterised by great heterogeneity. Many farm household members enjoy high wellbeing and do not experience loneliness or mental health problems, but it is also the case that many do face these issues. Poor mental health can be experienced across the farming population and is not confined to any particular sub-group (Wheeler & Lobley, 2021). The research on which

this article is based involved participants who self-identified as having experienced loneliness and poor mental health outcomes, as our interest was in exploring these in more depth.

Addressing the issues we have identified around the drivers of various forms of loneliness in farming is not easy and a full discussion of potential strategies lies beyond the scope of this article (although see Wheeler et al., 2021, for a full list of recommendations). There are, however, some key ambitions that we believe should form priorities for action from a range of stakeholders including the government, the public, farm support organisations and the farming community themselves. Perhaps most importantly, farmers need to feel enabled to take time off from work in order to relax, spend time with their families and take part in social activities. There is no single solution to this but supporting actions might include improving access to relief labour, providing more practical support to help ease business pressures, and promoting a culture change among the farming community that challenges attitudes towards long working hours and normalises taking a break from the farm. Greater training for the farming community, including young farmers, around mental health and the importance of maintaining a healthy work–life balance could aid in this.

Our findings around cultural loneliness demonstrate that there is also a need to strengthen connections between farming and non-farming communities in order to avoid farmers feeling isolated from society. This could include enhancing opportunities for community engagement with agriculture (as also recommended by Davies et al., 2019), improving public dialogue in relation to food and farming and promoting local food networks that facilitate more direct relationships between producers and consumers. Reducing farmers' sense of cultural isolation also requires a more positive and empathetic approach from the government and regulators when it comes to shaping and enforcing policy and legislative requirements, particularly since associated paperwork and inspections have long been identified as key sources of stress for farmers (Lobley et al., 2019).

Finally, there is clearly a need to improve access to, and uptake of, mental health support within the farming community so that people feel able to talk about emotional and personal matters, including feelings of loneliness, and seek help before matters escalate. Again, this is no simple task and requires both the continuation and expansion of existing forms of support (which our participants unanimously asserted must be farming-specific, for a range of reasons that we have not had space to fully explore here), as well as efforts to raise awareness of this support and break down social and cultural barriers to help-seeking within the farming community (see also Hull et al., 2017; Roy et al., 2017).

Crucially, as research elsewhere has shown (e.g. Heenan, 2006; Morgaine et al., 2017), the provision of effective mental health support for the farming community necessitates recognising the distinct issues and needs of this population and tailoring interventions accordingly. This article informs that endeavour through providing an improved understanding of the different dimensions and drivers of loneliness in farming, summarised in a new conceptual model (Figure 1). We are already working to disseminate the key findings from this research to key stakeholders in order to highlight the specific nature of loneliness and related mental health issues among farming communities. A summary of research findings (see Wheeler et al., 2021) has been shared with participants, a number of key stakeholders and members of the Loneliness and Social Isolation in Mental Health research network, and key points have been included in both written (Wheeler et al., 2022) and oral (Environment, Food and Rural Affairs Committee, 2022) evidence submitted to the Environment, Food and Rural Affairs parliamentary select committee inquiry on rural mental health. The research is thus helping to raise the profile of the issue among policymakers and practitioners and we are hopeful that this will translate into the provision of improved mental health support for farmers and their families.

CONFLICT OF INTEREST

The authors have no conflict of interest to declare.

DATA AVAILABILITY STATEMENT

Due to ethical concerns, the interview data supporting this publication are not available. A metadata record for the project, along with workshop notes and interview topic guides, are available from the UK Data Service in line with UKRI funding requirements.

ETHICS STATEMENT

This research was reviewed and approved by the College of Social Sciences and International Studies Research Ethics Committee at the University of Exeter.

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ENDNOTES

[1] According to Farm Business Survey data for England (2019/2020), 45% of farms are grazing livestock farms and a further 16% are pig, poultry or mixed farms; 25% are cereal farms, 10% general cropping and 5% horticulture (Rural Business Research, 2022).

[2] The average time spent working per year by the farmer, spouse and partners on grazing livestock farms in 2019/2020 was 2914 h, compared to 2424 on cropping farms (Rural Business Research, 2022).

[3] This belief is affirmed by official figures showing steep declines in the UK/British farm workforce since World War II (see Nye & Lobley, 2021).

[4] The participant did not provide further details about their private water supply but is likely referring to a bore hole or spring on their land. In the UK, water supplies not provided by a public water network or statutory water company are subject to a number of specific regulations to assure their safety and quality, which the landowner is responsible for complying with.

REFERENCES

Achterbergh, L., Pitman, A., Birken, M., Pearce, E., Sno, H. & Johnson, S. (2020) The experience of loneliness among young people with depression: a qualitative meta-synthesis of the literature. *BMC Psychiatry*, 20(1), 415. https://doi.org/10.1186/s12888-020-02818-3

Alasmawi, K., Mann, F., Lewis, G., White, S., Mezey, G. & Lloyd-Evans, B. (2020) To what extent does severity of loneliness vary among different mental health diagnostic groups: a cross-sectional study. *International Journal of Mental Health Nursing*, 29(5), 921–934. https://doi.org/10.1111/inm.12727

Alston, M. (2012) Rural male suicide in Australia. *Part Special Issue: Men, Masculinities and Suicidal Behaviour*, 74(4), 515–522. https://doi.org/10.1016/j.socscimed.2010.04.036

Alston, M. & Kent, J. (2008) The Big Dry: the link between rural masculinities and poor health outcomes for farming men. *Journal of Sociology*, 44(2), 133–147. https://doi.org/10.1177/1440783308089166

Arnautovska, U., McPhedran, S. & De Leo, D. (2015) Differences in characteristics between suicide cases of farm managers compared to those of farm labourers in Queensland, Australia. *Rural and Remote Health*, 15(3), 3250. https://doi.org/10.22605/RRH3250

Barrett, H. & Rose, D.C. (2022) Perceptions of the Fourth Agricultural Revolution: what's in, what's out, and what consequences are anticipated? *Sociologia Ruralis*, 62(2), 162–189. https://doi.org/10.1111/soru.12324

Beautrais, A.L. (2018) Farm suicides in New Zealand, 2007–2015: a review of coroners' records. *Australian & New Zealand Journal of Psychiatry*, 52(1), 78–86. https://doi.org/10.1177/0004867417704058

Birken, M., Chipp, B., Shah, P., Olive, R.R., Nyikavaranda, P., Hardy, J., Chhapia, A., Barber, N., Lee, S., Pearce, E., Lloyd-Evans, B., Perkins, R., McDaid, D., Shafran, R., Pitman, A. & Johnson, S. (2022) Exploring the experiences of loneliness in adults with mental health problems: a participatory qualitative interview study To be published in *Psychiatry and Clinical Psychology*. [Preprint]. https://doi.org/10.1101/2022.03.02.22271346

Bolmsjö, I., Tengland, P.-A. & Rämgård, M. (2019) Existential loneliness: an attempt at an analysis of the concept and the phenomenon. *Nursing Ethics*, 26(5), 1310–1325. https://doi.org/10.1177/0969733017748480

Bossard, C., Santin, G. & Guseva Canu, I. (2016) Suicide among farmers in France: occupational factors and recent trends. *Journal of Agromedicine*, 21(4), 310–315. https://doi.org/10.1080/1059924X.2016.1211052

Boulanger, S., Gilman, A., Deaville, J. & Pillock, L. (1999) *Farmers' Stress Survey. A questionnaire carried out at the Royal Welsh Show into stress factors experienced by farmers*. Oswestry: Institute of Rural Health.

Braun, V. & Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Bryant, L. & Garnham, B. (2014) Economies, ethics and emotions: farmer distress within the moral economy of agribusiness. *Journal of Rural Studies*, 34, 304–312. https://doi.org/10.1016/j.jrurstud.2014.03.006

Bryant, L. & Garnham, B. (2015) The fallen hero: masculinity, shame and farmer suicide in Australia. *Gender, Place & Culture*, 22(1), 67–82. https://doi.org/10.1080/0966369X.2013.855628

Burton, R. (2004) Seeing through the 'good farmer's' eyes: towards developing an understanding of the social symbolic value of 'productivist' behaviour. *Sociologia Ruralis*, 44(2), 195–215. https://doi.org/10.1111/j.1467-9523.2004.00270.x

Burton, R., Forney, J., Stock, P. & Sutherland, L.-A. (2021) *The good farmer: culture and identity in food and agriculture*. Oxon, UK: Routledge.

Campbell, D. (2001) *Stress in Buckinghamshire farming: Report to Buckinghamshire Rural Stress Group*. Aylesbury: Buckingham Community Action.

Cherry, K. & Smith, D.H. (1993) Sometimes I cry: the experience of loneliness for men with AIDS. *Health Communication*, 5(3), 181–208. https://doi.org/10.1207/s15327027hc0503_3

Creighton, G., Oliffe, J., Ogrodniczuk, J. & Frank, B. (2017) "You've gotta be that tough crust exterior man": depression and suicide in rural-based men. *Qualitative Health Research*, 27(12), 1882–1891. https://doi.org/10.1177/1049732317718148

Creswell, J.W. & Clark, V.L.P. (2011) *Designing and conducting mixed methods research*. Thousand Oaks, CA: SAGE Publications. https://books.google.co.uk/books?id=6tYNo0UpEqkC

Daghagh, S., Wheeler, S.A. & Zuo, A. (2019) Key risk factors affecting farmers' mental health: a systematic review. *International Journal of Environmental Research and Public Health*, 16(23), 4849. https://doi.org/10.3390/ijerph16234849

Dahlberg, L., McKee, K.J., Frank, A. & Naseer, M. (2021) A systematic review of longitudinal risk factors for loneliness in older adults. *Aging & Mental Health*, 26(2), 1–25. https://doi.org/10.1080/13607863.2021.1876638

Davies, A.R., Homolova, L., Grey, C., Fisher, J., Burchett, N. & Kousoulis, A. (2019) *Supporting farming communities at times of uncertainty: an action framework to support the mental health and well-being of farmers and their families*. Cardiff: Public Health Wales NHS Trust and Mental Health Foundation. https://phw.nhs.wales/services-and-teams/knowledge-directorate/research-and-evaluation/publications/supporting-farming-communities-at-times-of-uncertainty/ [Accessed 15th December 2021].

Daykin, N., Meads, C., Tomlinson, A., Gray, K., Lane, J. & Victor, C. (2019) *A conceptual review of loneliness across the adult life course (16+years): synthesis of qualitative studies*. London: What Works Centre for Wellbeing. https://whatworkswellbeing.org/wp-content/uploads/2020/02/V3-FINAL-Loneliness-conceptual-review.pdf [Accessed 15th December 2021].

Deary, I.J., Willcock, J. & McGregor, M. (1997) Stress in farming. *Stress Medicine*, 13(2), 131–136.

Defra and Rural Business Research. (2022) Farm Business Survey: Data builder. Available at: http://www.farmbusinesssurvey.co.uk/ [Accessed 20th July 2022].

Domènech-Abella, J., Switsers, L., Mundó, J., Dierckx, E., Dury, S. & De Donder, L. (2021) The association between perceived social and physical environment and mental health among older adults: mediating effects of loneliness. *Aging & Mental Health*, 25(5), 962–968. https://doi.org/10.1080/13607863.2020.1727853

Earp, A. (2007) *Workplace health connect in rural areas* (p. 174) London: Health and Safety Executive. https://www.hse.gov.uk/research/misc/ruralhealthcon.pdf [Accessed 24th November 2021].

Egoz, S., Bowring, J. & Perkins, H.C. (2006) Making a "mess" in the countryside: organic farming and the threats to sense of place. *Landscape Journal*, 25(1), 54–66. JSTOR.

Environment, Food and Rural Affairs Committee. (2022) *Oral evidence: rural mental health, HC 873.* House of Commons. Available at: http://committees.parliament.uk/oralevidence/9932/pdf/ [Accessed 23rd July 2022].

Errington, A. & Gasson, R. (1994) Labour use in the farm family business. *Sociologia Ruralis*, 34(4), 293–307. https://doi.org/10.1111/j.1467-9523.1994.tb00814.x

Ettema, E.J., Derksen, L.D. & van Leeuwen, E. (2010) Existential loneliness and end-of-life care: a systematic review. *Theoretical Medicine and Bioethics*, 31(2), 141–169. https://doi.org/10.1007/s11017-010-9141-1

Farmers Guardian. (2020) *Loneliness is a key factor in feeling depressed, farmers confirm.* Available at: https://www.fginsight.com/farmersstrivetothrive/loneliness-is-a-key-factor-in-feeling-depressed-farmers-confirm–110876 [Accessed 16th December 2021].

Firth, H.M., Williams, S.M., Herbison, G.P. & McGee, R.O. (2007) Stress in New Zealand farmers. *Stress and Health*, 23(1), 51–58. https://doi.org/10.1002/smi.1119

Furey, E.M., O'Hora, D., McNamara, J., Kinsella, S. & Noone, C. (2016) The roles of financial threat, social support, work stress, and mental distress in dairy farmers' expectations of injury. *Frontiers in Public Health*, 4, 1–11. https://doi.org/10.3389/fpubh.2016.00126

Gibney, S., Moore, T. & Shannon, S. (2019) Loneliness in later life: a cross-sectional survey analysis of place-based factors in Ireland. *Quality in Ageing and Older Adults*, 20(2), 80–96. https://doi.org/10.1108/QAOA-04-2018-0015

Gray, J.N. (2000) *At home in the hills: sense of place in the Scottish borders.* New York, NY: Berghahn Books. https://books.google.co.uk/books?id=ZoVl-i6dJe0C

Hagen, B.N.M., Albright, A., Sargeant, J., Winder, C.B., Harper, S.L., O'Sullivan, T.L. & Jones-Bitton, A. (2019) Research trends in farmers' mental health: a scoping review of mental health outcomes and interventions among farming populations worldwide. *PLOS ONE*, 14(12), e0225661. https://doi.org/10.1371/journal.pone.0225661

Hawton, K., Simkin, S., Fagg, J. & Hariss, L. (1998) *Suicide and stress in farmers.* London: The Stationery Office.

Heenan, D. (2006) The factors influencing access to health and socialcare in the farming communities of County Down, Northern Ireland. *Ageing andSociety*, 26(3), 373–391.

Heylen, L. (2010) The older, the lonelier? Risk factors for social loneliness in old age. *Ageing and Society*, 30(7), 1177–1196. https://doi.org/10.1017/S0144686X10000292

Hsueh, Y.-C., Chen, C.-Y., Hsiao, Y.-C. & Lin, C.-C. (2019) A longitudinal, cross-lagged panel analysis of loneliness and depression among community-based older adults. *Journal of Elder Abuse & Neglect*, 31(4-5), 281–293. https://doi.org/10.1080/08946566.2019.1660936

Hull, M.J., Fennell, K.M., Vallury, K., Jones, M. & Dollman, J. (2017) A comparison of barriers to mental health support-seeking among farming and non-farming adults in rural South Australia. *Australian Journal of Rural Health*, 25(6), 347–353. https://doi.org/10.1111/ajr.12352

Kelly, C. & Yarwood, R. (2018) From rural citizenship to the rural citizen: farming, dementia and networks of care. *Journal of Rural Studies*, 63, 96–104. https://doi.org/10.1016/j.jrurstud.2018.09.003

Lee, S.L., Pearce, E., Ajnakina, O., Johnson, S., Lewis, G., Mann, F., Pitman, A., Solmi, F., Sommerlad, A., Steptoe, A., Tymoszuk, U. & Lewis, G. (2021) The association between loneliness and depressive symptoms among adults aged 50 years and older: a 12-year population-based cohort study. *The Lancet Psychiatry*, 8(1), 48–57. https://doi.org/10.1016/S2215-0366(20)30383-7

Lobley, M. (2005) Exploring the dark side: stress in rural Britain. *Journal of the Royal Agricultural Society of England*, 166, 3–10.

Lobley, M. (2013) *Research to inform the farming help charities: reanalysis of CRPR SW farm surveys 2005 and 2010 and trends in farm incomes.* Centre for Rural Policy Research.

Lobley, M., Johnson, G. & Reed, M. (2004) *Rural stress review: final report.* Research Report No. 7, Centre for Rural Research.

Lobley, M., Potter, C., Butler, A., Whitehead, I. & Millard, N. (2005) *The wider social impacts of changes in the structure of agricultural businesses.* CRR Research Report No. 14, University of Exeter: Centre for Rural Policy Research. https://socialsciences.exeter.ac.uk/media/universityofexeter/research/centreforruralpolicyresearch/pdfs/researchreports/SocialImplications.pdf

Lobley, M., Winter, M. & Wheeler, R. (2019) *The changing world of farming in Brexit UK.* Oxon, UK: Routledge.

Lunner Kolstrup, C., Kallioniemi, M., Lundqvist, P., Kymäläinen, H.-R., Stallones, L. & Brumby, S. (2013) International perspectives on psychosocial working conditions, mental health, and stress of dairy farm operators. *Journal of Agromedicine*, 18(3), 244–255. https://doi.org/10.1080/1059924X.2013.796903

Ma, R., Wang, J., Lloyd-Evans, B., Marston, L. & Johnson, S. (2021) Trajectories of loneliness and objective social isolation and associations between persistent loneliness and self-reported personal recovery in a cohort of secondary mental health service users in the UK. *BMC Psychiatry*, 21(1), 421. https://doi.org/10.1186/s12888-021-03430-9

Mann, F., Wang, J., Pearce, E., Ma, R., Schlief, M., Lloyd-Evans, B., Ikhtabi, S. & Johnson, S. (2022) Loneliness and the onset of new mental health problems in the general population. To be published in *Social Psychiatry and Psychiatric Epidemiology.* [Preprint]. https://doi.org/10.1007/s00127-022-02261-7

Mansfield, L., Victor, C., Meads, C., Daykin, N., Tomlinson, A., Lane, J., Gray, K. & Golding, A. (2021) A conceptual review of loneliness in adults: qualitative evidence synthesis. *International Journal of Environmental Research and Public Health*, 18(21), 11522. https://doi.org/10.3390/ijerph182111522

McGraw, J.G. (1995) Loneliness, its nature and forms: an existential perspective. *Man and World*, 28(1), 43–64. https://doi.org/10.1007/BF01278458

McGregor, M.J., Willcock, J., Dent, B., Sutherland, A., Gibson, G., Morgan, O. & Grieve, B. (1996) Links between psychological factors and farmer decision making. *Farm Management*, 9(5), 228–239.

McHugh Power, J.E., Hannigan, C., Carney, S. & Lawlor, B.A. (2017) Exploring the meaning of loneliness among socially isolated older adults in rural Ireland: a qualitative investigation. *Qualitative Research in Psychology*, 14(4), 394–414. https://doi.org/10.1080/14780887.2017.1329363

Monk, A. (2000) The influence of isolation on stress and suicide in rural areas: an international comparison. *Rural Society*, 10(3), 393–403. https://doi.org/10.5172/rsj.10.3.393

Monk, A. (1999) *Rural isolation as a stressor: physical, cultural, social and psychological isolation in rural areas of Great Britain, Northern Ireland and Eire.* Kenilworth: The Countryside Development Unit and The Rural Stress Information Network.

Montmarquet, J.A. (1989) *The idea of agrarianism: from hunter-gatherer to agrarian radical in Western culture.* Moscow, ID: University of Idaho Press.

Morgaine, K., Thompson, L., Jahnke, K. & Llewellyn, R. (2017) GoodYarn: building mental health literacy in New Zealand's rural workforce. *Journal of Public Mental Health*, 16(4), 180–190.

Moustakas, C.E. (1981) *Loneliness.* Englewood Cliffs, NJ: Prentice-Hall.

Nye, C. & Lobley, M. (2021) *Farm labour in the UK: accessing the workforce the industry needs.* Report number 978-0902746-51-0. Centre for Rural Policy Research and The Worshipful Company of Farmers.

Nye, C., Winter, M. & Lobley, M. (2020) *More than a mart: the role of UK livestock markets in rural communities.* Full report to The Prince's Countryside Fund. The Prince's Countryside Fund.

Parry, J., Barnes, H., Lindsey, R. & Taylor, R. (2005) *Farmers, farm workers and work-related stress.* A report Prepared by the Policy Studies Institute for the Health and Safety Executive. Report 362. London: Health and Safety Executive.

Peel, D., Berry, H.L. & Schirmer, J. (2016) Farm exit intention and wellbeing: a study of Australian farmers. *Journal of Rural Studies*, 47, 41–51. https://doi.org/10.1016/j.jrurstud.2016.07.006

Perceval, M., Kõlves, K., Reddy, P. & De Leo, D. (2017) Farmer suicides: a qualitative study from Australia. *Occupational Medicine*, 67(5), 383–388. https://doi.org/10.1093/occmed/kqx055

Perlman, D. & Paplau, L.A. (1981) Toward a social psychology of loneliness. In Gilmour, R. & Duck, W. (Eds.), *Personal relationships in disorder.* London: Academic Press, pp. 31–56. https://peplau.psych.ucla.edu/wp-content/uploads/sites/141/2017/07/Perlman-Peplau-81.pdf

Petitte, T., Mallow, J., Barnes, E., Petrone, A., Barr, T. & Theeke, L. (2015) A systematic review of loneliness and common chronic physical conditions in adults. *The Open Psychology Journal*, 8(1), 113–132. https://doi.org/10.2174/1874350101508010113

Phelps, C. (2001) *Stress in farming in North Yorkshire*. WPS/01/06, Phase 1 Report, Health and Safety Laboratory, Sheffield.

Philo, C., Parr, H. & Burns, N. (2003) Rural madness: a geographical reading and critique of the rural mental health literature. *Journal of Rural Studies*, 19(3), 259–281. https://doi.org/10.1016/S0743-0167(03)00005-6

Pretty, J. (2013) *Agri-culture: "reconnecting people, land and nature"*. Hoboken, NJ: Taylor & Francis. https://books.google.co.uk/books?id=kTzARgDYYKcC

Price, L. & Evans, N. (2009) From stress to distress: conceptualizing the British family farming patriarchal way of life. *Journal of Rural Studies*, 25(1), 1–11. https://doi.org/10.1016/j.jrurstud.2008.03.008

Quadt, L., Esposito, G., Critchley, H.D. & Garfinkel, S.N. (2020) Brain-body interactions underlying the association of loneliness with mental and physical health. *Neuroscience & Biobehavioral Reviews*, 116, 283–300. https://doi.org/10.1016/j.neubiorev.2020.06.015

Raine, G. (1999) Causes and effects of stress on farmers: a qualitative study. *Health Education Journal*, 58(3), 259–270. https://doi.org/10.1177/001789699905800307

Ramos, A., Carlo, G., Grant, K., Trinidad, N. & Correa, A. (2016) Stress, depression, and occupational injury among migrant farmworkers in Nebraska. *Safety*, 2(4), 23. https://doi.org/10.3390/safety2040023

Reed, M., Lobley, M., Winter, M. & Chandler, J. (2002) *Family farmers on the edge: adaptability and change in farm households.* Final report for The Countryside Agency, University of Plymouth & University of Exeter. http://rgdoi.net/10.13140/RG.2.1.3012.8481

Riley, M. (2009) 'The next link in the chain': children, agri-cultural practices and the family farm. *Children's Geographies*, 7(3), 245–260. https://doi.org/10.1080/14733280903024407

Ringgenberg, W.J.W. (2014) *Trends and characteristics of occupational suicide and homicide in farmers and agriculture workers, 1992–2010*. PhD, thesis, University of Iowa, Iowa.

Rose, D.C., Wheeler, R., Winter, M., Lobley, M. & Chivers, C.-A. (2021) Agriculture 4.0: making it work for people, production, and the planet. *Land Use Policy*, 100, 104933. https://doi.org/10.1016/j.landusepol.2020.104933

Roy, P. & Knežević Hočevar, D. (2019) Listening to a silent crisis: men's suicide in rural and farming communities in Slovenia. *Revija Za Socijalnu Politiku*, 26(2), 241–254. https://doi.org/10.3935/rsp.v26i2.1593

Roy, P., Tremblay, G., Oliffe, J.L., Jbilou, J. & Robertson, S. (2013) Male farmers with mental health disorders: a scoping review: male farmers' mental health disorders. *Australian Journal of Rural Health*, 21(1), 3–7. https://doi.org/10.1111/ajr.12008

Roy, P., Tremblay, G., Robertson, S. & Houle, J. (2017) "Do it all by myself": a salutogenic approach of masculine health practice among farming men coping with stress. *American Journal of Men's Health*, 11(5), 1536–1546. https://doi.org/10.1177/1557988315619677

Russell, D., Cutrona, C.E., Rose, J. & Yurko, K. (1984) Social and emotional loneliness: an examination of Weiss's typology of loneliness. *Journal of Personality and Social Psychology*, 46(6), 1313–1321. https://doi.org/10.1037/0022-3514.46.6.1313

Sand, L. & Strang, P. (2006) Existential loneliness in a palliative home care setting. *Journal of Palliative Medicine*, 9(6), 1376–1387. https://doi.org/10.1089/jpm.2006.9.1376

Sawir, E., Marginson, S., Deumert, A., Nyland, C. & Ramia, G. (2008) Loneliness and international students: an Australian study. *Journal of Studies in International Education*, 12(2), 148–180. https://doi.org/10.1177/1028315307299699

Schutt, R. (2004) *Investigating the Social World: The Process and Practice of Research*. SAGE Publications. https://books.google.co.uk/books?id=4JV0rxXSrWoC

Schwarzbach, M., Luppa, M., Forstmeier, S., König, H.H. & Riedel-Heller, S.G. (2014) Social relations and depression in late life: a systematic review. *International Journal of Geriatric Psychiatry*, 29(1), 1–21.

Shortall, S., McKee, A. & Sutherland, L.-A. (2020) The performance of occupational closure: the case of agriculture and gender. *Sociologia Ruralis*, 60(1), 40–57. https://doi.org/10.1111/soru.12279

Silvasti, T. (2003) The cultural model of "the good farmer" and the environmental question in Finland. *Agriculture and Human Values*, 20(2), 143–150. https://doi.org/10.1023/A:1024021811419

Smith, K.J. & Victor, C. (2019) Typologies of loneliness, living alone and social isolation, and their associations with physical and mental health. *Ageing and Society*, 39(8), 1709–1730. https://doi.org/10.1017/S0144686X18000132

Stain, H.J., Kelly, B., Lewin, T.J., Higginbotham, N., Beard, J.R. & Hourihan, F. (2008) Social networks and mental health among a farming population. *Social Psychiatry and Psychiatric Epidemiology*, 43(10), 843–849. https://doi.org/10.1007/s00127-008-0374-5

Stark, C., Gibbs, D., Hopkins, P., Belbin, A., Hay, A. & Selvaraj, S. (2006) Suicide in farmers in Scotland. *Rural and Remote Health*, 6(1), 509–518.

Sundström, G., Fransson, E., Malmberg, B. & Davey, A. (2009) Loneliness among older Europeans. *European Journal of Ageing*, 6(4), 267. https://doi.org/10.1007/s10433-009-0134-8

Sundström, M., Edberg, A.-K., Rämgård, M. & Blomqvist, K. (2018) of health care professionals. *International Journal of Qualitative Encountering existential loneliness among older people: perspectives Studies on Health and Well-Being*, 13(1), 1474673. https://doi.org/10.1080/17482631.2018.1474673

van Staden, W.C. & Coetzee, K. (2010) Conceptual relations between loneliness and culture. *Current Opinion in Psychiatry*, 23(6), 524–529. https://doi.org/10.1097/YCO.0b013e32833f2ff9

van Tilburg, T.G. (2021) Social, emotional, and existential loneliness: a test of the multidimensional concept. *The Gerontologist*, 61(7), e335–e344. https://doi.org/10.1093/geront/gnaa082

Wallace, C., Dunkerley, D., Cheal, B. & Warren, M. (1994) Young people and the division of labour in farming families. *The Sociological Review*, 42(3), 501–530. https://doi.org/10.1111/j.1467-954X.1994.tb00099.x

Wang, J., Lloyd-Evans, B., Marston, L., Mann, F., Ma, R. & Johnson, S. (2020) Loneliness as a predictor of outcomes in mental disorders among people who have experienced a mental health crisis: a 4-month prospective study. *BMC Psychiatry*, 20(1), 249. https://doi.org/10.1186/s12888-020-02665-2

Wang, J., Mann, F., Lloyd-Evans, B., Ma, R. & Johnson, S. (2018) Associations between loneliness and perceived social support and outcomes of mental health problems: a systematic review. *BMC Psychiatry*, 18(1), 156. https://doi.org/10.1186/s12888-018-1736-5

Weiss, R.S. (1973) *Loneliness: the experience of emotional and social isolation.* Cambridge, MA: The MIT Press.

Wheeler, R. & Lobley, M. (2021). *Health and wellbeing of the farming community in England and Wales*. Full report. Available on request from RABI: https://rabi.org.uk/.

Wheeler, R. & Lobley, M. (2022) *Health-related quality of life within agriculture in England and Wales: Results from a EQ-5D-3L self-report questionnaire.* BMC Public Health, 22, 1395. https://sociology.exeter.ac.uk/media/universityofexeter/research/microsites/centreforruralpolicyresearch/pdfs/Inheritance_and_succession_Final_report_for_NFUM_FINAL_version_30.07.20.pdf [Accessed 21st June 2022].

Wheeler, R., Lobley, M., McCann, J. & Phillimore, A. (2021) *Loneliness and social isolation in farming communities: summary report.* Centre for Rural Policy Research, University of Exeter.

Wheeler, R., Lobley, M. & Soffe, R. (2020) *Farm succession and inheritance in England, Scotland and Northern Ireland.*

Wheeler, R., Nye, C., Lobley, M. & Aitken, P. (2022) *Written evidence submitted by the Centre for Rural Policy Research (CRPR) University of Exeter (MH0029).* UK Parliament. Available at: https://committees.parliament.uk/writtenevidence/42969/pdf/

Wiley, A.R., Bogg, T. & Ho, M.-H.R. (2005) The influence of parental socialization factors on family farming plans of preadolescent children: an exploratory analysis. *Journal of Research in Rural Education*, 20(11), 12.

Winter, M. & Lobley, M. (2016) *Is there a future for the small family farm*? A report to The Prince's Countryside Fund. Prince's Countryside Fund.

Yanguas, J., Pinazo-Henandis, S. & Tarazona-Santabalbina, F.J. (2018) The complexity of loneliness. *Acta Bio Medica Atenei Parmensis*, 89(2), 302–314. https://doi.org/10.23750/abm.v89i2.7404