SRUC

Research Report (2024)

Mental health and well–being protective factors of lone and isolated workers in the West Highlands and Skye

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Foreword

Samaritans are the leading suicide prevention and crisis support charity in the UK and Ireland. We work towards a future where fewer lives are lost to suicide, where more people feel able to ask for help when they are struggling, and where the right support is available at the right time. We are committed to improving the reach of our services and to letting people know we are here to offer support, day or night, wherever you live.

Our West Highlands and Skye project has helped to raise awareness of our services by engaging with local communities, employers and organisations to ensure that everyone is aware that help and support is available. Previous research, conducted on behalf of Samaritans in 2018, found evidence of considerable stigma around mental health, as well as perpetuated local narratives about suicide.

Since then, the Covid-19 pandemic has significantly changed the working environment for many people with an increase in home working and fewer opportunities to physically interact with colleagues. Living and working rurally can bring added challenges to ensuring good mental health and well-being - isolation, access to support, opportunities for socialising and human connection.

With a strong focus on lone and isolated workers, we have offered a range of support to improve mental well-being and help reduce suicide risk. We have also worked to challenge the stigma associated with mental health and suicide through targeted awareness raising campaigns, increasing signposting to local and national support, and delivering community and employer training.

Much is known about the increased risk of lone and isolated work in rural and remote communities. But this unique piece of research seeks to understand what helps to protect and promote mental well-being. We hope that this research helps employers to recognise and value appropriate support for lone workers and that there is no 'one size fits all' approach to ensuring good employee well-being.

This report would not have been possible without the people who shared their experiences of lone and isolated working in the West Highlands and Skye with the research team. Thank you to all the participants who contributed to the research.

Neil Mathers,
Executive Director for Scotland

Acknowledgements

EXECUTIVE SUMMARY

This research forms part of the broader Samaritans Scotland West Highland and Skye Project (2021-2024). The project aims to increase Samaritans visibility within the area, encourage help-seeking, deliver community and employer training and increase signposting to local and national support. The project was co-designed by Samaritans staff and volunteers to address the lack of Samaritans 'on the ground' presence in the region and to help address the consistently high rate of suicide in the Highlands.

Research carried out by Samaritans in 2018 identified that mental health stigma is still an issue in the area and that people didn't always know how and when to seek support. The project focused on lone and isolated workers, as for many people, their work environment changed significantly during the pandemic with an increase in home working and less physical interaction with colleagues and other people. The project was funded by the Scottish Government Covid Transition and Recovery Fund.

As part of the wider project, research led by SRUC aimed to explore the shared and unique experiences of lone and isolated workers in the West Highlands and Skye and to identify the strategies, characteristics, attributes and/or resources that protects a lone worker's mental health and well-being. Findings from interviews with lone workers in the West Highlands and Skye and their employers fall into a variety of themes, which are broadly categorised in this report as Rural Fit and the Physical and Social Environment.

There are lifestyle preferences and personal characteristics which help individuals to fit well into living and working in the West Highlands and Skye. In addition, there are aspects of the physical, social, and work environment which can influence their ability to maintain mental health and well-being in the longer term. Some external aspects can erode individual resilience, such as lack of management support, lack of acceptance or integration within a community, and a sense of being trapped with limited opportunities to get away for a break or to leave permanently.

It is clear from this report that there are a range of ways that people define and engage in meaningful social interactions and seek support. It is therefore important that we do not assume a "one size fits all" approach to support, or that all lone workers need support. It is important that we also recognise the positive contribution of personally acceptable levels of social isolation in relation to the

mental health and well-being of some lone workers. For some, the opportunity to be alone and away from people appears a highly desirable feature of lone working.

For some lone workers, including those who are self-employed, there is still that need to be connected to a peer support network, not least where a work force is dispersed around a large geographic area and/or for those whose employers and managers are remotely located. Where there are clear benefits for rural lone workers in being able to access peer networks and training online, there is also the risk that online interactions do not provide workers with the same level of support they might get in face-to-face environments. Employers should liaise with individual rural lone workers to identify the type and frequency of support that they need. If lone workers feel a lack of social support there is a risk that self-sufficiency and resilience could erode over time.

Importantly, to offset the "out of sight, out of mind" nature of lone working, there should be increased and concerted efforts to value these individuals and to recognise their contribution to sustainable communities in the West Highlands and Skye. We believe this recommendation is key in supporting and maintaining the mental health and well-being of lone workers. We also stress that this is important for all types of work and employment.

BACKGROUND

The impact of reality of rural life, as opposed to expectations arising from myths about the rural idyll are examined by Philo et al[1], (2003) in relation to mental health. A myth system in which "rural life if constructed as all health-enhancing beaches, mountains, mineral spas, forests, gardens and supportive communities" (p.276) is compared with the lived experience of individuals who are preoccupied by the risk of "disapproval within the rural community" (p.266), the "risk of visibility" (p.269) and the "threat and fear of stigmatisation" (p.270). They suggest that an urban-rural binary approach, which praises and romanticises rural as superior, and which denigrates urban as less health enhancing is too simplistic. A pluralistic view of rural should include overlaying social, cultural, physical, demographic, economic, religious, political, and other influences (p.278). As such, the interplay with protective characteristics is complex and nuanced.

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[1] Philo, C., Parr, H. and Burns, N., 2003. Rural madness: a geographical reading and critique of the rural mental health literature. *Journal of Rural Studies*, *19*(3), pp.259-281.

A review of the literature undertaken in Phase 1 of this project, presented a complex and nuanced picture of protective factors for suicide for lone workers in Skye and the West Highlands. It is of course important to acknowledge difference amongst towns, townships, villages, and hamlets in the area in relation to infrastructure, proximity to services, and localised pressures on employment and housing availability. However, we should also consider additional layers of difference which may be less visible and measurable. Some of these differences will change over time, such as cyclical periods of growth-decline in community organisations as volunteers are engaged and become fatigued. Other differences are felt, perceived, and experienced differently by individuals in the same place at the same time, not least because of risk factors for suicide.

Key protective factors, such as increased problem-solving, self-efficacy, resilience, and reason for living, for example[2] [3] [4], have been well documented in the literature and are unquestionably relevant to lone workers in Skye and the West Highlands. However, understanding the unique demands of lone-working in different sectors, from the isolation and pressures experienced by individuals in professional services such as health and veterinary care in rural practice, to the lack of exposure to people and limited social contact experienced by land-based workers in remote or isolated rural settings, should provide a context for how these protective factors might operate. Protective factors such as self-efficacy or resilience may look and feel quite different for an individual who works on a croft on land lived in by family members for many previous generations, to someone from another country who has come to work in the nearby hotel for the summer.

This study sought to increase understanding of the unique challenges experienced by lone workers and how these are managed by individuals in different lone-working contexts in the West Highlands and Skye in order to maintain their mental health and well-being.

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[2] Edward, K.L., Welch, A. and Chater, K., 2009. The phenomenon of resilience as described by adults who have experienced mental illness. *Journal of Advanced Nursing*, *65*(3), pp.587-595.
[3] Corrigan, P.W., Watson, A.C. and Barr, L., 2006. The self-stigma of mental illness: Implications for self-esteem and self-efficacy. *Journal of social and clinical psychology*, *25*(8), pp.875-884.
[4] Bakhiyi, C.L., Calati, R., Guillaume, S. and Courtet, P., 2016. Do reasons for living protect against suicidal thoughts and behaviors? A systematic review of the literature. *Journal of psychiatric research*, *77*, pp.92-108.

AIM

The overall aim of the project was to explore the shared and unique experiences of lone and isolated workers in the West Highlands and Skye and identify the strategies, characteristics, attributes and/or resources that protects a lone worker's mental health and well-being.

RECRUITMENT

Lone workers from different areas within the West Highlands and Skye and from different employment sectors were targeted for recruitment to ensure that a broad range of lone working experiences were explored.   Interviews were conducted with 38 participants.

The largest proportion of the participants fell within the Professional, Scientific & Technical category and included participants who worked in conservation, academia, finance and veterinary services.   The two other largest sector categories were Accommodation & Food services (including tourist services) and Agriculture, Forestry & Fishing (including crofting). It should be noted that some participants were employed in more than one sector but only their primary employment has been considered here.. Being employed in more than one sector was most common when the primary employment was part-time and / or when individuals' additional employment was crofting or in the creative industries.

Table 1

Location	
Argyll	2
Lochaber	6
Mid Highland	2
Skye	9
Wester Ross	10
Home address outwith area but work/ed in or represents staff in West Highlands & Skye	9

As illustrated in Table 1, ten participants were from Wester Ross, nine from Skye and six from Lochaber. Nine participants were outwith the West Highlands and

Skye but either lived / worked nearby, had previously worked in, or represented / employed staff who worked in the area.

METHODOLOGY

Reflexive Thematic Analysis (Results 1)

The interviews were transcribed using translation software and validated by the researchers. The interview transcripts were then analysed using reflexive thematic analysis, which is the careful reading and re–reading of the transcripts to identify patterns, shared meanings, and themes[5]. We chose an inductive approach to the thematic analysis to ensure we did not interpret the data with preconceived ideas and beliefs. In our analysis and interpretations, we recognise the influence of context such that our social and cultural backgrounds influenced the coding and analysis of the data and therefore wish to emphasise our findings are our interpretations[6] .

Behaviour Change Coding

The themes that we identified from the reflexive thematic analysis were also deductively coded and mapped on to the COM–B and Theoretical Domains Framework (TDF), which are the key frameworks in the Behaviour Change Wheel (BCW).[7] [8] [9] [10] The Behaviour Change Wheel (BCW) has been used by several studies not only as a means of developing a possible intervention for behaviour change but also as a means of identifying the key influences on behaviour[11] [12] [13] . Our

[5] Braun, V. and Clarke, V., 2012. *Thematic analysis*. American Psychological Association.

[6] Brown, G. and Yule, G., 1983. *Discourse analysis*. Cambridge university press.

[7] Cane, J., O'Connor, D. & Michie, S. Validation of the theoretical domains framework for use in behaviour change and implementation research. *Implementation Sci* **7**, 37 (2012). https://doi.org/10.1186/1748-5908-7-37

[8] Michie, S., Van Stralen, M. M., & West, R. (2011). The behaviour change wheel: a new method for characterising and designing behaviour change interventions. *Implementation science*, *6*(1), 1-12.

[9] Michie, S. & West, R. (2013) Behaviour change theory and evidence: a presentation to Government, Health Psychology Review, 7:1, 1-22, DOI: 10.1080/17437199.2011.649445

[10] Michie, S., Atkins, L., & West, R. (2014). The behaviour change wheel. *A guide to designing interventions. 1st ed. Great Britain: Silverback Publishing*, *1003*, 1010.

[11] Krog, M. D., Nielsen, M. G., Le, J. V., Bro, F., Christensen, K. S., & Mygind, A. (2018). Barriers and facilitators to using a web-based tool for diagnosis and monitoring of patients with depression: a qualitative study among Danish general practitioners. *BMC Health Services Research*, *18*(1), 1-9.

[12] Campbell, K. A., Fergie, L., Coleman-Haynes, T., Cooper, S., Lorencatto, F., Ussher, M., ... & Coleman, T. (2018). Improving behavioral support for smoking cessation in pregnancy: what are the barriers to stopping and which behavior change techniques can influence them? Application of theoretical domains framework. *International journal of environmental research and public health*, *15*(2), 359.

[13] Webster, R., Michie, S., Estcourt, C., Gerressu, M., Bailey, J. V., & MenSS Trial Group. (2016). Increasing condom use in heterosexual men: development of a theory-based interactive digital intervention. *Translational behavioral medicine*, *6*(3), 418-427.

reflexive thematic analysis allowed us to identify the different protective factors that our participants engaged in, and we used the BCW to signpost us to the key influences on these protective behaviours.

In the context of a behaviour change intervention design, a COM-B analysis would traditionally focus on the influences on a single target behaviour. However, as the intention was not to design an intervention but rather to use the COM-B and TDF to identify the key influences, multiple behaviours are reported. As found by past research, understanding the constellation of behaviours (e.g., COVID-19 protective behaviours) provides a novel approach to prevention in situations where there are multiple and overlapping behaviours[14].

It is worth also noting here that good mental health is <u>not</u> a behaviour but is the desired outcome of key behaviours. Behaviours are therefore what protect or challenge positive mental health outcome(s) e.g., socialising, eating a healthy diet, exercising, going to church.

The Figure 1 is an illustration of the BCW, which is followed by a brief explanation of the COM-B and the TDF[15]..

In the inner part of the wheel – the green circle – is what is known as the COM-B and the yellow circle that encircles the COM-B is the TDF. Both the COM-B and the TDF combined help us to identify the key factors that may drive or prevent a behaviour.

First, the components that make up the COM-B are Capability (psychological & physical), Opportunity (social & physical) and Motivation (automatic & reflective). All or some of these components can affect our behaviours to varying degrees. If we use the example behaviour "making new social connections/friendships" this behaviour could be influenced by an individual's motivation to socialise or by the environment in terms of having the opportunity to socialise.

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[14] Chater, A.M., Brook-Rowland, P., Tolani, F., Christopher, E., Hart, J., Byrne-Davis, L.T., Moffat, A., Shorter, G.W., Epton, T, Kamal. A., O'Connor, D.B., Whittaker, E., Lewis, L.M., McBride, E., Swanson, V., & Arden, M.A. (2023). Understanding a constellation of eight COVID-19 disease prevention behaviours using the COM-B model and the theoretical domains framework: a qualitative study using the behaviour change wheel. Front. Public Health 11:1130875. doi: 10.3389/fpubh.2023.1130875

[15] Atkins, L., Francis, J., Islam, R., O'Connor, D., Patey, A., Ivers, N., Foy, R., Duncan, E.M., Colquhoun, H., Grimshaw, J.M. & Lawton, R., (2017). A guide to using the Theoretical Domains Framework of behaviour change to investigate implementation problems. *Implementation science*, *12*, pp.1-18.

Once the key influences of a behaviour have been mapped on to the COM-B, the researcher can also look to the TDF to seek a more granular understanding. For example, having no opportunity to socialise because one works and lives in a remote area, could be interpreted as having no Physical Opportunity according to COM-B. A more nuanced understanding of Physical Opportunity can then be obtained from the TDF as Environmental Context & Resources (domain) and Person × environment interaction (construct), for example.
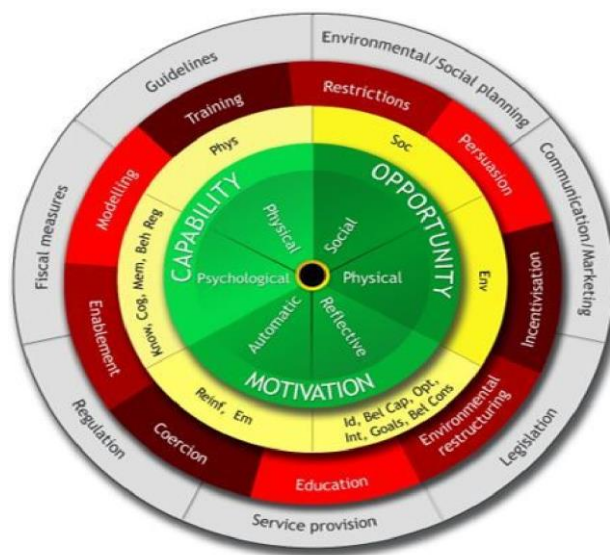
Figure 1. The Behaviour Change Wheel [9, 10, 11]

In the Table 2, we provide some definitions and examples of how capability, opportunity, and motivation might impact a "making new social connections/friendships" behaviour and how these COM-B components then map on to the TDF. The full TDF table can also be found in the appendices.

The BCW therefore helped guide our interpretation of our lone workers' mental health protective behaviours and more specifically the factors that influenced those behaviours.

Table 2. The COM–B Components: Definitions & Examples

COM-B [9, 10, 11]	Definitions	Example: making new friendships	TDF (Domain/Construct)[8] [16]
Psychological Capability	Knowledge or psychological skills, to engage in necessary mental processes.	Knowledge of how to make friends, or knowledge of where to go to make friends.	*Knowledge/Schema* *Skills/Interpersonal*
Physical Capability	Physical strength, skill, or stamina.	The physical ability to leave one's house or drive to destinations to make social connections/friendships.	*Skills/Physical Skills*
Social Opportunity	Opportunity afforded by interpersonal influences, social cues and cultural norms that influence the way that we think about things.	Perceived social support/feedback to make and maintain friendships.	*Social Influences/Social Support*
Physical Opportunity	Refers to the environment where the behaviour occurs but also includes resources such as money & time.	Living in areas that allow for social connections/friendships e.g., not living in remote areas. Or having the time to make social connections/friendships.	*Environmental context and resources/ Person × environment interaction*
Automatic Motivation	Automatic processes involving emotional reactions, desires, wants and needs. Involves impulses, inhibitions, drive states and reflex responses.	Not feeling anxious or fearful of making new social connections/friendships.	*Emotions/Anxiety or Fear*
Reflective Motivation	Reflective processes involving plans, self-conscious intentions, and evaluations.	Believing that one can make new friends or that the outcome of new friendships will be positive.	*Belief in Capability/Self-confidence* *Belief in Consequences/Outcome Expectancies*

RESULTS 1: REFLEXIVE THEMATIC ANALYSIS

In this section the results are reported in terms of two key themes and their respective sub-themes: Rural Fit (Adaptability and Flexibility; Adaptability as a Double-Edged Sword, Communication and Culture; A Road Out; Awareness of Nuances of Rural Living; and A Romantic Lens) and Physical and Social Environment (Nature; Beauty; The Weather; A Rich, Proximal Social Network; and A Dispersed Social Network). Each of the sub-themes are also mapped on to the COM-B and TDF to further elucidate the possible influences on mental health and well-being protection.

The role of some lone workers in the West Highlands and Skye is very closely intertwined with the physical (e.g. conservation work) and social environment (e.g. health care). Participants in this study described aspects of their lived rural working experience and how this contributed negatively or positively to their mental health and well-being.

Theme: Rural Fit

Employers were asked to consider the common features of the employees that seem to manage well and to thrive, and individual lone workers were asked to reflect on how they managed the main challenges of their job. Many responses alluded to a sense of alignment which certain individuals had with their rural context. Broadly, some individuals were described as fitting better than others. The nature of this alignment, or 'rural fit' relates to characteristics such as adaptability and flexibility, how individuals respond to additional responsibilities which are associated with rural lone working, and communications styles which align well to nuances of local rural cultures. In addition, awareness of the benefits for rural lone workers to get away from their local area for work or for pleasure and a discussion of the individual's awareness of the wider nuances of rural living are also included in this Rural Fit section.

Rural Fit Sub-theme: Adaptability and Flexibility

A recurring theme and therefore shared experiences were around the challenges of lone working and how these can be managed in terms of adaptability, flexibility, and one's own initiative. These experiences are illustrated in the following extracts from the interviews:

> *"The capability to see something needs done and go and do it".*

"If something goes wrong, you're on your own with it, you've got to solve that problem yourself".

"Just use your own initiative, and just get on with it".

"There's probably some stoicism, like embracing and enjoying the experience or seeing the positives of it, like as best you can."

These comments were commonly made by participants across sectors and illustrate the personal capabilities which help rural lone workers maintain mental health and well-being and to perform well in work.

Rural Fit Sub-theme: Adaptability as a Double-Edged Sword

When asked about some of the main challenges of their job, it was common for participants to express some concern that their skills in overcoming challenges i.e. their adaptability, as discussed previously became a double-edged sword such that being a "safe pair of hands" lead to a level of employer inertia, specifically a failure/reluctance for their employer to recruit additional staff. This also sometimes meant the lone workers were given additional responsibilities beyond their assigned roles and above their pay grades. In these situations, participants reported feeling unsupported by their employer:

"The real challenge for what I did as XXX [name of profession] was basically having no peer support, because I was literally on my own. So, when there was a challenge, or there was something I was uncomfortable with, or unhappy about, it was really no one to kind of bounce that off".

"People need confidence in themselves, but also that their employer will support them".

Rural lone workers who were employed by a business from outwith the area or in the public sector highlighted the need for management support which recognised the unique rural demands of their role.

More widely however, some of these lone workers felt belittled and demeaned by others in their profession who dismissed the rural workforce as being of less value. We should also note that the participants were aware that they were paid less than other types of employees, which further impacted their perceived value.

"I moved from XXX [rural placename] to XXX [urban placename] to work. XXX [urban placename] was busier in terms of the sheer number of patients, but it was much easier than working in XXX [rural placename]. It's a doddle compared to XXX [rural placename] because I didn't have to worry about anything".

"I was earning 20%, below national average earnings for XXX [name of role]"

Several participants believed that being undervalued coupled with lower levels of pay deterred others from rural lone working, and they felt that these issues are most likely contributing to the current recruitment and retention problems in Skye and the West Highlands. These problems also have a knock-on effect on the existing workforce who feel they must keep working at the same rate even when their choice would be to reduce their hours or even retire. Some feel trapped because they do not want to let down family members (if it is a business) or their customers and clients in the communities in which they have become embedded. This is also particularly challenging for those whose job demands physical strength and agility.

"Yeah, I guess it's tougher, the older you get. In there with us, it's very physical, there's no escaping it".

The problems described relate to both personal attributes and external materials and resources and thus we might conclude that there is an important interplay between the individual and social and material resources, specific to the West Highland and Skye contexts.

Rural Fit Sub-theme: Communication and Culture

When discussing how best to manage the challenges of being a rural lone worker, issues around communication and culture were identified as important in maintaining and protecting mental health and well-being.

Clearly rural communities are not homogenous and as such individuals will have a range of different communication styles. However, lone workers in this study described aspects of communication, such as directness or aloofness which they felt were commonly found in their communities. For example, some rural people's language style or style of engagement was so direct it was often perceived as hardness or rudeness. Others described individuals in the community/workplace as being evasive or even aloof in their interactions, which sometimes meant that

important issues were not discussed. Awareness of these different styles of communication and knowing some communicative strategies to improve these types of interactions were identified as being potentially helpful for individual lone workers, particularly for those new to the area and/or new to Scotland. Some participants felt these communicative skills or strategies may offset upset or frustration.

In addition to this, an informal approach to engagement with others was considered vital to be accepted and to build trust in rural communities. This style, described earlier as speaking *"to somebody like you've known them your entire life",* is a skill that can be hard to define and is perhaps under-recognised. However, the rural lone workers who have or could adapt to a culturally sensitive communication style were more likely to be effective in their work and more likely to be integrated into and accepted by their community.

> *"Some of these ways you can become aware of and learn. But actually, if you don't, you're kind of screwed.... you're not going to be accepted by the others, not until you do something to be accepted".*

> *"Sometimes it can be, you know, there's nuances in the culture that aren't quite, they may not sound as if they're important, but actually to fit in, and to communicate effectively, being aware of some of that stuff is quite useful for somebody, I think it's absolutely necessary for people to be aware of it".*

> *"These people are skilled and able to do the job. But that cultural insensitivity, or lack of cultural sensitivity, makes them feel as if they're rejected, there's something wrong with them. And that actually means it's much harder to stay in that community".*

One participant who identified as belonging to an ethnic minority group and who felt very accepted in their local community and more widely in the Highlands, expressed frustration that other ethnic minority individuals are less inclined to come to the area because of the fear of racism. They reported that they knew racism existed, but it was their perception that xenophobia was perhaps more of a problem than racism. This of course points to the need to address the importance of intersectionality both by employers and communities.

> *"It's sad for me that a lot of ethnic minorities are scared to live in the Highlands because they worry."*

Although participants recounted many benefits of living and working in the area for their mental health and well-being, some participants also described some aspects of community life which they found to be difficult. Reduced opportunities for social interaction were one such difficulty, which was expressed as a possible origin for loneliness.

> *"I had a romantic idea of living in Highland community. The reality has been quite different because, you know, even though I'm ancestrally Scottish, I don't sound it, and my mother's Scottish. I've had so much racism, … you know, like, 'you should go home'".*

> *"Oh well, I've lived here long enough to know who's feuding with who. So, you know, who doesn't talk to us."*

Rather than at the level of individuals within a community, some felt the whole community had negative characteristics, which made it difficult for individuals to feel as though they belonged.

> *"I've definitely noticed a culture difference between XXX [placename] and XXX [placename]"*

> *"There was no support. There was nothing to kind of get involved with* (Question from interviewer: *And so were you lonely?) Yes. isolated".*

Some lone workers described various efforts to integrate into their community which, with hindsight, they realised had not been effective. Some perceived a lack of opportunity for integration, or an unwillingness within the community to accept or include them.

Communities with these negative characteristics were described as "dead" or "toxic". In contrast, in the communities with more positive characteristics and conditions, descriptors such as "welcoming" and "can do" were expressed. Lone workers believed that it would be detrimental to mental health and well-being to live and work in these negative communities and some individuals reported moving to a community that was more inclusive and diverse. What was interesting was that some of the communities described as positive were often located close by these "negative" communities, suggesting it was perhaps certain individuals or the interplay between individuals that created these less-welcoming communities.

"There are definitely one or two areas of XXX (name of area) that I would say are toxic communities. And I would not recommend anyone living or working in those communities, because they have become so toxic. The responsibility actually lies with that community. For whatever reason, the leaders in that community are ... part of the problem".

"There is no community, there's nothing. Oh, yes, you can have a lovely house, beautiful, but you're on your own there. There's not really sense of community anymore. Do you really want that? Maybe some people don't mind because ... they go 'brilliant is so peaceful and quiet', I think yeah, really?

There can be unseen and underlying tensions within sectors, especially amongst small businesses, which were described as 'cut-throat'. When one business expanded or became more successful, these successes could be met with negativity.

Individuals who had lived and worked in the area over decades were considered to view the past through a romantic lens. One participant suggested that "*there's a lot of rubbish about the past, and it's easy to idealise it and to romanticise it*". However, for some, there was a sadness about many of the changes they have seen in their local community, which have arisen from depopulation and a housing shortage (described by some as resulting from an increase in houses being bought as second and holiday homes). Several participants noted that these problems have eroded a sense of community in their township. The lack of access to suitable and affordable housing was considered to be detrimental not only to whole communities but also to the mental health and well-being of individuals who were impacted.

Another change that was recognised by longer term residents in the area was in relation to addictions. In the past there were a lot of "*raging alcoholics*" which "*was grim to see*". These individuals could serve as a local warning about drinking too much, as illustrated by the comment, "*Like you could see it was the wrong thing to do*". Over more recent years, drugs are perceived to have become more prevalent in the area and this was identified as problematic in relation to employing staff, not least when workers turned up for work "*just out of their heads*".

> "*What I am seeing now is it's really, really bad with Class A drugs … it's really bad to see what's going on*".

When individuals move to live and work in the West Highlands and Skye, whether as lone workers or not, being able to adapt to the communication styles – as previously discussed - and the local culture can be critical factors in protecting the individual's mental health and well-being. From a human resources perspective this approach can also go some way to ensuring employee retention. A sense of belonging cannot of course, be orchestrated solely by an employer, but it is nonetheless important for all employers to help put the scaffolding in place to ensure that a sense of belonging and inclusion develops:

> *XXX (placename) is the first time that I felt at home in a place ever, but I found home here. I really liked XXX (urban placename). But now, this is home. And there's a sense of belonging, because I know that I'm not from here, and I don't claim to be from here. But this is what I feel.*

To help integrate new staff, from wherever they are from outwith the West Highlands and Skye, a *cultural induction* is recommended to include discussions around culturally sensitive communication styles, how to navigate the countryside, 'hot spots' for phone and internet connectivity, and tips for identifying properties which have addresses with only a name but no sign or number. These latter issues may appear trivial but were identified by some of our participants as invaluable to their day-to-day work and social lives. Given the reported increase in substance misuse in some areas this might also be an important factor for employers to consider in terms of ensuring that new and current employees are fully abreast of

the local cultures. Culture as we know "serves as a guide for action, a cognitive map, and a grammar for behaviour"[16].

In the next section, the impact of the relationship between the rural lone workers and their natural environment on their mental health and well-being is discussed.

Rural Fit Sub-theme: A Road Out

Whilst communities in the West Highlands and Skye provide a range of opportunities and services for local people, and the lone workers interviewed for this study expressed their appreciation of living and working in the area, the need for a road out or the ability to 'get away' was consistently highlighted. A road out was important for lone workers to function effectively in their work. For trades people for example, there is a need to be able to leave to purchase necessary supplies for their job. This involves pre-planning and organisational skills as incorrect supplies or omissions can cause delays and require repeat journeys.

> "If you go in the shop for a job and then you come back and you find you forgot something … "

Forgetting something can cause anxiety and frustration, not least because of the financial implications.

When lone workers in the West Highlands and Skye leave the area for any reason, delays arising from travel and weather disruption can result in the loss of workdays. This is even more pronounced when ferries and flights are involved but can also occur when roads are closed because of accidents, debris, flooding, or snow. There are cost implications for local businesses and to individuals who personally bear the cost of these delays. It is common for some lone workers to plan and make contingencies for potential delays and disruption.

Many lone workers in this study also spoke of the benefits of being able to leave the area as a way of protecting their mental health and well-being. Some participants noted that they would leave to escape the darkness of winter for example.

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[16] Heath, D.B., 2001. Culture and substance abuse. *Psychiatric Clinics of North America*, *24*(3), pp.479–496.

"I like going away off the island".

"Every opportunity I've got to get away, I would go away".

"The winters are extremely long and extremely dark. You know, the summers are obviously very light, but like winter lasts a long, long, long, long time … Well, this year finally we're going to go away for a month. Usually, it's grim. February, yeah, February is bad because you've had to go through January. Yeah, you just have to get through it. It's horrible. And one strategy is to escape".

Of course, this is an important point to note because for many, leaving to escape winter would not be financially or practically possible. A further barrier exists for those who are self-employed or who run a business but struggle to find cover for absences. This is particularly pertinent considering the issue of employee recruitment and retention, as previously discussed.

Rural Fit Sub-theme: Awareness of the Nuances of Rural Living

Several participants expressed the need for employers to ensure potential new employees are not lured by a romantic idea of working in the Highlands and Skye. They felt it is important that new employees fully understand all of the disadvantages alongside the advantages of lone working in this part of Scotland.

"So that kind of reality check kind of thing, yeah, that would be useful. To be a bit more upfront about that stuff. Well, I don't think that's a reality check in terms of saying that's the Highlands are terrible, but the reality check in saying, in the same way that people have the emotional quotient, it would be the remoteness quotient / remote adaptability".

Participants warned of the risks that employers make in assuming that because someone has applied for a job in the area, that they will be fully aware of all the difficulties of living in the area and/or have the relevant skills with dealing with these difficulties:

"The industry probably looks at it and says, 'Well, 90% of these people have self-selected because they want to do this. So, they probably have the backing and the knowledge to do it anyway'. So, nobody asks".

"In terms of remoteness and reality … I didn't get it at first".

"Self-awareness, or at least a heads up. I'd put what the job actually involves [in the recruitment advert]".

Another aspect of rural reality was an awareness of one's ability to live and work in environments that can be both cruel and kind in terms of weather, social milieu, and geography. Although there is a risk of discouraging participants to apply for a job, which would further exacerbate the problem of a low workforce in the Highlands and Skye, the participants expressed the importance of informing all potential applicants of "rural realities". Several participants believed this approach could safeguard successful recruitment and workforce retention:
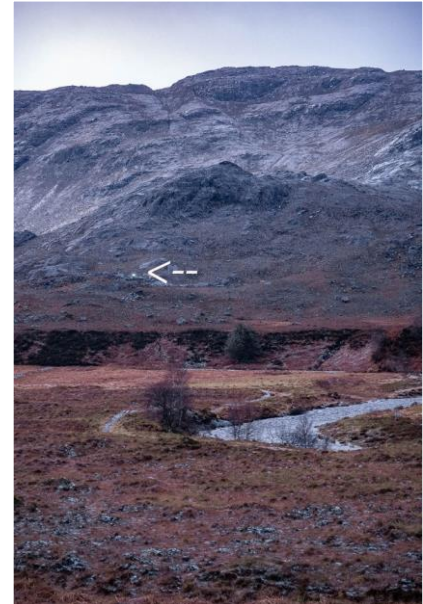
"It puts a lot of people off, and it's definitely one of the issues that's mentioned if you speak about why we can't recruit people, they see the idea of being a goldfish bowl. Yeah, because I was quite happy to be in a goldfish bowl".

"I think I'm drawn to a rural context, I grew up in it, was a child who grew up in a rural context"

"So, it would have to be quite good at kind of making their own entertainment as such. You know, I think that would be one of the, you know, if it was somebody that if they said that they like going out for good out for meals, takeaways. Night clubs, cinemas, all of this. So, that you think they might struggle. But if it's people that quite like the nature, dog walking, bird watching, cycling, wild swimming, whatever, then you think, right. OK, that could be quite good. That could be quite a good fit, you know".

The importance of supporting staff and ensuring they did not become professionally isolated over time was also stressed by some participants.

"But because when people apply for a job, they know what job they're applying for, so, they must have some sort of acceptance that this is what it's going to be. But I think if people have a supportive team, or supportive manager, it's much easier then. They are more willing to learn, and they are willing to come up with solutions and make decisions. However, if there is

less support and they just don't have the confidence, that it's becoming a challenge because they become fearful of everything fearful of making decisions".

"If I go a walk, although by myself, yeah, I'm happy to walk alone and not feeling lonely at all. But these very same people can feel lonely in themselves or professionally".

Some of the participants referred to rural fit explicitly, indicating that the environments align with their needs and therefore enhanced their mental health and well-being:

"It's a closer expression to like what people are supposed to live like. I don't think it's very natural to sit at a desk all day long".

"I love this place and I can't see working or living anywhere else full time".

Rural Fit Sub-theme: A Romantic Lens

Participants reflected on their romantic view of living and working in the West Highlands and Skye. For some, this had been more of a feature of the past or had been central to the decision to move and to remain as lone workers in the area.

"It's romantic in that it's a beautiful environment".

"I'll tell you honestly, I think I was kind of swept along a little bit by this picture".

"The pleasure of being where I am, seeing the mountains, the coastlines, that is the driving force. It's like being in fantasyland".

The quotes noted above illustrate the danger of romanticising decisions to move to the area for work. There is a perception that some people who come to live and work in the area expect that the move and their new role/job will "solve their problems". Whilst some people found that their mental health improved because of their change in job and environment, others felt that problems could be exacerbated by lone working in a rural setting.

In the following section, aspects of the physical and social environments, which influenced the mental health and well-being of lone workers are reported.

Theme: Physical & Social Environment

The West Highlands and Skye are renowned worldwide for their spectacular and beautiful scenery. Participants in this study described how their physical environment and geographic location impacted both positively and negatively on their mental health and well-being. In this section, their views and experiences are presented in the following sub-themes: Nature, Beauty, and The Weather. The section ends with consideration of the impacts of the social environment on mental health and well-being.

Physical & Social Environment Sub-theme: Nature

The Scottish Metrical version of Psalm 121, traditionally sung in presbyterian churches in the West Highlands and Skye, in Gaelic and in English, describes the experience of looking to the hills and the subsequent sense of being safe. This experience, although expressed as part of the wider, non-religious experience of living in the area, was mirrored in the words of a participant in Skye who said;

> *"it's safe, it feels great, and I very much enjoy the fact that when I look out, I can see hills".*

The impact of living close to nature was described in different ways by participants. For some, their closeness to nature gave them clarity and made them '*feel alive*'.

> *"It's kind of rawness about it that's different, slightly different from anywhere else. And I love that. I love being the author of my own, kind of my own life".*

> *"I find it quite restful after all these years and I think the benefits of being in the highlands are just amazing in terms of just settling down and starting to think".*

For others, the impact of nature was described as a spiritual connection which they identified as being similar to ancient Celtic spirituality and a belief that "*nature is alive and sentient*".

> *"My spiritual life has blossomed, and so I would say that it's my spirituality that keeps me sane".*

The importance of their spiritual connection with nature in supporting their mental health and well-being is also illustrated in the following quote:

"I feel I've got connection that supports me when I'm really rock bottom".

A rural lone worker who worked in the creative sector described a sense of *"grounding with the nature"*, which not only contributed to their sense of well-being but also to their creativity.

The connection between mental and spiritual health was clearly recognised by rural lone workers. One participant highlighted the role of a *"strong Christian faith"* in relation to their approach to work, specifically about work ethic and in the context of vocational work in a challenging environment.

Physical & Social Environment Sub-theme: Beauty

The aesthetic aspect of the natural environment in the West Highlands and Skye was highlighted as the reason that some people choose to live in the area, and this provides an initial positive contribution to their happiness.

"When people first come and they're very, you know, because everybody's, of course rightly, so enthusiastic about all the beauty and everything".

For indigenous or longer-term residents in the area, beauty is recognised as a fundament component of their experience.

"Obviously, it's beautiful. But everywhere in the islands is beautiful. Most places and islands are beautiful. The beauty is the first thing that comes to mind".

However, over time it can be easy to take the beauty of the local environment for granted, not least because they are focussed on the practical nature of working in the environment.

"It isn't looking at it with an eye of like a painter or a photographer, or seeing the beauty"

"I think there's a lot of romanticism around the setting and the landscape from people who aren't in there or working on it, and I think the relationship that people experience who work with it is different, significantly so".

"We don't have to take our location and setting and views for granted … but it can take a conscious effort to see it".

Hence some described a pro-active approach to taking notice by looking for seasonal and daily changes, as illustrated by the following quote.

"It's very aesthetically beautiful here... It's different every day. The light is different. The sky is different. The clouds are different. The leaves on the trees every it's really all different".

Some participants were clear that beauty alone falls short of protecting lone workers mental health and well-being. Instead, the social over the physical environment becomes more important. Indeed, it appears that it is one's social environment that influences decisions to remain in an area.

"I loved living on XXX. Don't get me wrong, as a place it was beautiful. But I couldn't do it long term".

"It's about knowing that you need to get involved, and about choosing your community. Don't choose it because of the house".

Physical & Social Environment Sub-theme: The Weather

Several of the participants commented how the weather affected their mood. The lack of exposure to light and sunshine were discussed as being difficult to cope with. Although the closeness to nature afforded by the West Highlands and Skye appears to also function as a protective factor, (as discussed in the sub-theme: Nature) exposure to the harsh weather conditions can also be a challenge. This is especially true for lone workers who work outside.

"I think the grey days can get difficult and horizontal rain ... And lack of days or lack of hours of sunlight through the winter".

"If it's been torrential for ages, then it's like, I hate it. If it's been like a really nice hot, sunny day, and I've got myself an ice cream at lunchtime, that affects my moods ... if I've been outside in the pouring rain all day, I'm really grateful to come inside and be in front of a warm fire".

However, the ability to accept the weather conditions (hot or cold) and to dress accordingly was highlighted as an important aspect of sustaining mental health and well-being, especially by those whose work involves several hours outdoors such as forestry and fishing. Some participants also expressed increased stress and strained relationships when colleagues who had failed to adapt to the weather, consistently complained.

> *"that's important with the clothing, and that you take spare clothes, ... you've got to be on the ball with that because you'll be miserable if you don't get it right".*

> *"There's that as it's easier working in the cold once you get going and you keep going, it's easier, cold than hot, I would say."*

The following extract illustrates how the additional challenge of severe weather on top of other physical challenges around remoteness can have a negative impact on the individual lone worker.

> *"I remember doing a house visit to XXX, a crofting township, ... 20-mile single track route ... and I got called at about two o'clock in the morning in midwinter. Oh, and it was a blizzard. Oh, I remember, all I remember is driving up in all this kind of whiteout snow, and driving back and all this whiteout snow, and I have absolutely no idea what happened in the middle, because I don't remember. But I do remember the snow, and then going back to bed about four in the morning".*

Physical & Social Environment Sub-theme: A Rich, Proximal Social Network

The West Highlands and Skye can be described as remote and isolated in relation to the central belt of Scotland and peripheral in relation to London and mainland Europe. In comparison to all, the population is also significantly lower. Being a remote location and supporting a small population one might assume the residents are negatively impacted by social isolation. Whilst this is true for some, there were several participants who enjoy the social isolation and some who had

moved to the area for the social isolation. We therefore attempted to capture the participants' views and experiences around geography, population and location within the following subthemes: A Rich, Proximal Social Network and a Dispersed Social Network.

As mentioned in the recruitment section of this report, our "recruitment net" was cast wide to capture a wide range of employment sectors and as such, we were able to examine quite a broad spectrum of work and social experiences. For example, some rural lone workers define themselves as a "*people person*" and believe that it is their social skills which help them to connect and communicate well with customers, clients, and the wider community. On the other hand, some rural lone workers feel that they thrive because they are away from people for much of their working day and would not describe themselves as a "*people person*".

Some lone workers in this study described their local communities in such detail and with such fondness that it often felt like they were describing a family. At times listening to the participants speak of their communities also felt like they were telling us a charming or interesting story, seeing the West Highlands and Skye again through that "romantic lens":

> "*I lived in a crofting Township. You know, there was a schoolteacher on one side of me there was a council digger driver on the other side of me. There was a builder, a stonemason guy up the hill, there was a joiner down the hill*".

> "*I have my father XXX away from me, my wife's mother and father XXX the other way, my brother stays in one, there's cousins all around me, you know?*"

Some participants in this study had always lived in the area or had returned after moving away for a time. As well as members of their immediate family nearby, the participants discussed having lots of extended family in the area and knew residents from school days or from years of living and working in the area. Not only did this extended network of family and neighbours act to provide opportunities for social interaction and for individuals to call upon if help was needed, but it also gave people a sense of being 'at home' and connected to place.

Some lone workers who were not from the area also discussed how they had moved to West Highlands or Skye because friends or family members had moved

to the area. These participants expressed the importance of a local social network as crucial to their own mental health and well-being. Interestingly, these participants also warned against arriving to work in the area without social supports in place.

"It would be helpful to have a network before you arrive".

"I think anybody that wants to move up here or move to a remote area by themselves that doesn't have some sort of support network, whether it's friends, family, or whatever, I think they'll struggle".

It is important therefore, not to assume that social isolation is an inevitable consequence of lone working in the West Highlands and Skye as many participants told us that they had several family members and/or friends in the area. The participants we interviewed were very clear about their appreciation of friendship and described their efforts to maintain social contact in their rural community:

"I mean the long and the short of it is, you know, when you strip everything else away in this life of ours, all the material stuff …and all the rest of it, what it's really all about is friendships… Here it's more about contacting, making time for other people."

In general, rural residents were perceived to be more visible in their communities than their urban counterparts, and as such it can be easier for some lone workers to have opportunities for social interaction. Several participants noted that not everyone will have a 'rural social net'. Some individuals also discussed how rural communities can be more proactive in reaching out to isolated individuals.

"Yes, it's remote, and we have got longer distances to travel. But people know people, like, you're not a number. They're very much a person that's known by somebody, So, I think there's potentially less room for people to be missed and forgotten".

Physical & Social Environment Sub-theme: A Dispersed Social Network

Some of the participants in this study lived and worked on islands or in parts of the West Highlands and Skye which had very low levels of population, which meant the extent of the local social network was limited. For others, the limitations related to a lack of integration into their local community, as discussed previously. To

support their mental health and well-being, these individuals commonly drew support from a dispersed network of peers, work colleagues, friends, and family.

A mechanism for protecting oneself from the effects of social and/or emotional loneliness was inviting friends and family to visit or leaving the area to visit friends, as discussed in our "A Road Out" theme. For some, these relationships were primarily maintained by phone or the internet contact:

> "I would just see nobody at all and that didn't really bother me because I had my Saturday morning catch ups with friends, I had phone calls with people and … I was speaking to people all the time for work".

> "Social internet-based communications have been our route to redress the challenge of the lack of access to social network".

Being managed remotely was a common experience for several lone workers. Receiving a phone call or meeting request from managers and peers who worked elsewhere, was welcomed by most. When there was no or little contact from employers and supervisors it was identified as impacting their mental health and well-being, especially over an extended period.

> "…more so than just the health and safety aspect of it, knowing that someone cares is super vital to the human experience, I think".

> "Just knowing that someone is there is what is important, even though I don't really need someone most of the time, it is important that you know they are there if you need them" [reference to employers].

The lack of any contact or insufficient contact with managers and with peers was consistently identified as a problem or challenge. Some lone workers felt their managers were too far removed from the nature and setting of their work. Consequently, some lone workers felt this resulted in inappropriate requests and inadequate responses to the demands of the local context.

In the public sector, it was reported that management posts remained vacant for long periods of time and no alternative provision was put in place. This also resulted in a withdrawal of in-person meetings / team-building activity with co-workers who are located elsewhere in the region / country. This lack of peer contact and support thus appeared to increase professional isolation and feelings of being undervalued and unseen.

For rural lone workers accustomed to spending a lot of time alone, it appears that they simply adapt to a dearth in social contact. Thus, adapting to isolation and loneliness may develop surreptitiously:

> "So, because I spend a lot of time on my own, like, working, I was actually really shocked during lockdown, how much I missed social interaction".

Over time, and as rural lone workers get older, they may also become less pro-active about maintaining or building their social networks. However, in the event that someone may find themselves needing the support of others, for example during retirement, years of social isolation may make this more difficult for some:

> "As I've got older, just the less people have got in contact with, I know that's bad".

We also found that simply saying 'hello' and chatting to customer service staff in shops or to other parents outside the school gate, for example, can be small but valued social interactions in the day of a rural lone worker. Others spoke of the benefits of more in-depth and meaningful conversations, to stimulate thinking and creativity.

> "I've got a couple of people that we, you know, we have quite in-depth discussions about things. It's really good to have your thoughts and ideas challenged, you know, to have those kinds of good proper debates. So, that's intellectual stimuli. Yes, you really, really need that and I think it's really good, creatively, that you to be challenged".

The lack of opportunity for varied and interesting conversation because of the smallness of the social network was also found to be frustrating by some.

> "That drives me insane, I'd be banging my head on the road, because I cannot every day see the same people and have the same conversation".

Being part of a small group of colleagues, even if dispersed, can also provide support for a rural lone worker. Several participants discussed how having other "like-minded" people around is also important, which some described as *kinship*. This kinship doesn't mean that individuals are all the same, it simply means that there is "*a common understanding about being away from people*" and they are part of a team that supports each other, even if they don't frequently see each other.

"If you don't feel kinship, you can't survive".

"Feeling like you have a support network in place is vital".

"If you're in it, you realise you just sort of inherently can draw a mutual understanding, and then speak to somebody like you've known them your entire life".

Many rural lone workers are alone for long periods of time. Some participants described their internal dialogue during these times of no contact. For some, the long periods of time alone could be difficult, and could lead to negative thinking patterns:

"But being on your own for a very long time, if you're not used to it can be quite traumatic".

"If you're not careful you can convince yourself of very dark things when you're on your own for a very long amount of time".

On the other hand, some participants described how they thrived in their own company. One participant described a 'fantastic, colourful and constructive' internal dialogue which was used to self-reassure that they had "done the right thing" and which protected against loneliness, saying, *"There is no company like my own".* For some, the need to spend time away from people and to spend time alone was critical to their mental health and well-being.

"I would crack if I didn't get away from people for at least part of the day".

"It is not lonely. It is a desire to step away. It suits our way of being… For me, it is a necessity to get away from people … being isolated is not a problem".

The role of a pet dog was highlighted as important by some lone workers who spent many hours alone, or who lived alone. This was used as a substitute for human companionship and as a way of accessing social interaction with humans. A dog was also a source of comfort and could help to alleviate negative impacts of poor mental health.

"So, I used to take the dog, go to the pub, have a glass of wine, get on the Wi Fi, and everything like that. So, I just got talking to people."

"If you've got a dog, you've got to go out, you've got to get your fresh air,

you've got to get out, you've got to get a walk. And you talk to random people. And I know a lot of people in the village not because of we would be in the same social circle, so to speak, but purely through the dogs. So yeah, so anybody wants to be rural lone worker, get a dog."

"It's great living up here in the summer, but we can be quite depressed in the winter. And I just shut the curtains, don't look out the window, and snuggle up with my dogs."

"You may be able to let yourself down when you're very sad, but you have to be very sad indeed to neglect your dog and not take it for a walk and not let it out. And then that's the little push and the little bit of accountability, and it gets you out and walking, then that can be really beneficial."

The ability for individuals to thrive in a socially sparse landscape, not least because of the steps they take to mitigate against social isolation, was clearly identified. However, as outlined in the sub-theme 'Adaptability as a Double-Edged Sword' there is a need to avoid longer term assumptions that these individuals are not at risk of social isolation.

RESULTS 2: COM-B & THEORETICAL DOMAINS FRAMEWORK ANALYSIS

As previously discussed, we utilised two key frameworks of the Behaviour Change Wheel i.e. the COM-B and the Theoretical Domains Framework (TDF) [11] to identify the key protective behaviours and their determinants, as carved out initially from our reflexive thematic analysis.

When participants were asked to tell us how they manage the challenges around their lone working, a recurring pattern was that of adapting to the contexts of challenge and being flexible in the way one approaches these challenges (see theme: Rural Fit Sub-theme: Adaptability & Flexibility). The shared experiences that led to the *Adaptability and Flexibility* theme appeared to point to work-role

adaptability. Of course, this is of interest as past research also shows that employees increasingly need to become more adaptable and versatile to cope with the everchanging occupational landscape(s)[11].

It is also suggested that individuals engage in proactive adaptive behaviours to ensure congruence between the self and their work environments[17], which appeared true of some of our participants. Others note that individuals and their environments are in constant motion, highlighting the importance of adaptability to cope with the unpredictability of some work environments[18][19].

There are clearly different dimensions of adaptive behaviours in the workplace, which are related to different individual attributes[20] and this is what we found when we coded the Adaptability and Flexibility theme against the COM-B components and TDF domains. For example, utilising the COM-B model we interpreted the influences on adaptive behaviour in terms of *Reflective Motivation*. We were able to interpret the participants' reflective motivation as beliefs about capabilities (i.e., acceptance of the truth, reality or validity about an ability, talent, or facility that a person can put to constructive use) and social and professional roles & identity (i.e., a coherent set of behaviours and displayed personal qualities of an individual in a social or work setting). Thus, the participants voiced a level of confidence and belief in their abilities to adapt and overcome the challenges of their jobs. They also expressed pride in their abilities to deal with the challenges that they face.

It was also interesting to find that several participants reflected on their past "successes" in overcoming challenges giving them the confidence that they could overcome similar challenges in the future. These claims again suggest adaptive behaviours are underpinned by a belief in one's own capability. According to the TDF's *Belief in Capability* domain this belief may for example stem from self and professional confidence, self-esteem, and self-efficacy[7]. Because we also know

[17] Coetzee, M., 2016. Adaptive behaviour in the workplace: Psycho-social career preoccupations and openness to technological change. *Career development: Theories, practices and challenges*, pp.63–78.

[18] Savickas, M.L., 2011. New questions for vocational psychology: Premises, paradigms, and practices. *Journal of Career Assessment*, *19*(3), pp.251–258.

[19] Savickas, M.L. and Porfeli, E.J., 2012. Career Adapt-Abilities Scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of vocational behavior*, *80*(3), pp.661–673.

[20] Pulakos, E.D., Arad, S., Donovan, M.A. and Plamondon, K.E., 2000. Adaptability in the workplace: development of a taxonomy of adaptive performance. *Journal of applied psychology*, *85*(4), p.612.

from the literature that adaptability is associated with self-efficacy and self-esteem[21] and self-efficacy and self-esteem play an integral role in helping individuals cope with novel and challenging situations[22], we might propose adaptability – as influenced by these self-belief attributes – plays an important role in protecting the mental health of rural lone workers.

Research into adaptability has also pointed to the importance of this behaviour in training employees by exposing them to situations they might encounter in their roles[14]. Furthermore, we also know that adaptability and self-confidence form significant bi-directional relationships within work-role contexts[14 17]. In summary, it appears adaptability as influenced by belief in one's own capability to overcome challenges serves as a key protective factor for some lone workers.

Further evidence of adaptive behaviours serving to protect mental health and well-being amongst lone workers was observed in the *Physical & Social Environment Sub-theme: The Weather*. Some of the participants noted that adapting to the weather by planning and dressing appropriately helped to offset the negative effects of working in harsh conditions. Interpreting these findings against the COM-B model suggests the influence is one of Reflective Motivation, and more specifically in terms of the TDF, as *planning* for the effects of extreme weather. There is clear evidence of an association between extreme weather conditions and mental health outcomes in the literature[23 24].

However, there remains a dearth in the research examining the physical and psychological effects of the weather on those working outdoors[25]. What we do know however is that the acclimatisation of workers is key. The worker's ability to

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[21] Chen, C., Shen, Y., Zhu, Y., Xiao, F., Zhang, J. and Ni, J., 2023. The effect of academic adaptability on learning burnout among college students: the mediating effect of self-esteem and the moderating effect of self-efficacy. *Psychology Research and Behavior Management*, pp.1615-1629.
[22] Krause, S., Back, M.D., Egloff, B. and Schmukle, S.C., 2016. Predicting self-confident behaviour with implicit and explicit self-esteem measures. *European Journal of Personality*, *30*(6), pp.648-662.
[23] Basu, R., Gavin, L., Pearson, D., Ebisu, K. and Malig, B., 2018. Examining the association between apparent temperature and mental health-related emergency room visits in California. *American journal of epidemiology*, *187*(4), pp.726-735.
[24] Vida, S., Durocher, M., Ouarda, T.B. and Gosselin, P., 2012. Relationship between ambient temperature and humidity and visits to mental health emergency departments in Québec. *Psychiatric Services*, *63*(11), pp.1150-1153.
[25] Karthick, S., Kermanshachi, S. and Ramaji, I., 2022. Health and safety of construction field workforce active in extreme weather conditions. In *Construction Research Congress 2022* (pp. 737-747).

self-pace, dress appropriately and remain hydrated have been identified as key factors in protecting the worker from physical and mental health problems[26].

The weather was also discussed under the *Rural Fit Sub-theme: A Road Out* theme. Having a plan to escape the cold dark days was identified as a way to cope with the cold and the lack of light/sunshine in these particular regions of Scotland. This point again suggests that leaving the area for a time, was a conscious way to cope with the winter months. Research also shows that anticipation of a holiday positively impacts an individual's life satisfaction and overall mental well-being[27]. Of course, leaving is not always possible for everyone and so it is important that for those individuals who cannot leave, other protective measures are put in place.

Another theme that followed on from *Adaptability & Flexibility* was the theme of *Adaptability as a Double-Edged Sword*. Although as previously discussed, adaptability may serve as protective factor, it can also result in negative outcomes. For example, being a "reliable pair of hands" appears to result in employees being given additional responsibilities. Furthermore, when additional work is coupled with other problems such as feeling undervalued and unsupported by employers, one's adaptability may erode.

In some instances, adapting to the challenges of the job appeared to hallmark a high degree of conscientiousness and agreeableness such that several participants reported "not wanting to let other people down". Paying more attention to the needs of others can of course have detrimental effects on the individual. High levels of conscientiousness and agreeableness for example are associated with lower levels of renumeration and status[28]. This was expressed by several of our participants who noted that they were paid less than others and were valued less by their colleagues. We would therefore suggest that employers pay close attention to their adaptable and conscientious employees and ensure their needs are also supported and their value not overlooked. Failing to attend to the needs of these individual employees increases the likelihood that their

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[26] Kemala, I.T.S. and Yuliani, S., 2018. Acclimatization, water intake adequacy rate, individual characteristics and heat strain: a cross-sectional study on heat exposed workers. In *E3S Web of Conferences* (Vol. 73, p. 06010). EDP Sciences.

[27] Gilbert, D. and Abdullah, J., 2002. A study of the impact of the expectation of a holiday on an individual's sense of well-being. *Journal of Vacation Marketing*, *8*(4), pp.352-361.

[28] Boudreau, J.W., Boswell, W.R. and Judge, T.A., 2001. Effects of personality on executive career success in the United States and Europe. *Journal of vocational behavior*, *58*(1), pp.53-81.

adaptive skills will be replaced with work-role dissatisfaction and/or mental health concerns.

Applying the COM-B and TDF lenses to adaptability within these contexts allowed us to identify when it may become a barrier to positive mental health outcomes. Thus, several participants expressed dissatisfaction and a sense of hopelessness around their situation stating they "just get on with it". We therefore interpreted this as both Reflective and Automatic Motivation. In terms of reflective motivation, some of the lone workers appear very much aware of their situation as being sub-optimal, yet feel unable to do anything to change it, which points to belief about capabilities and belief about consequences. Further, in terms of automatic motivation i.e., emotional reactions desires, impulses and so forth[6][7], it appeared that for some lone workers, there is anticipated discontent and irritation around their situation. It was also clear that for those individuals who did not have a good social network, being supported by their employer was even more important.

For those who were engaging in adaptive behaviours yet also expressing frustration that their employer was failing to provide additional staff, we might also suggest that a barrier for continued adaptability would be Physical Opportunity. Several participants thus noted that their ability to adapt and cope with their workloads was impacted by an overall lack of resources.

At a more micro level, one might also suggest evidence of social opportunity acting as a barrier. Social opportunities are afforded by interpersonal, influences such as peer support[7]. Several participants noted that having no peers with whom to discuss their problems was difficult. Social influence was also identified in the participants' perceptions that they were undervalued by their peers, which is evidence of perceived alienation, social pressures, or poor social support.

Another shared experience that was identified in response to the question of how individuals overcome the challenges of rural lone working in the West Highlands and Skye was that of making efforts to socialise and to "fit in". Evidence of this as a protective behaviour was observed across two themes, for example in the Rural Fit Sub-theme: Communication and Culture and the Physical & Social Environment Sub-theme: A Rich, Proximal Social Network. In utilising the COM-B model we can identify engaging in social-specific behaviours to protect one's health as mapping on to the Social Opportunity component. First, several participants expressed an appreciation for the friendships that they had, describing their efforts to maintain good social contact within their communities. Others also noted that in instances

where they did not have a good social network, support from their employers, and contact with work colleagues was even more important. Overall, the research clearly points to the importance of social support in protecting mental health[29] [30] and that social support is often more important for those living in rural areas where social networks and opportunities are naturally smaller in scale or are scarce[31].

What is also important to note is that for some, having a choice to be more socially isolated was more important than being socially connected. In some instances, participants expressed their decision to take on the lone worker role as a way of "getting away from people". What we do know is that even for those who claim they do not need social support or "other people around", it is important for them to know that support is there should they need it [32] [33]. Several participants expressed this very sentiment, proposing that although they enjoyed the isolation, they need to know support is always there. These findings point to both COM–B *social opportunity* i.e., the opportunity to socialise and be around others and *reflective motivation* i.e., knowing one can seek support from others should they need to. As such, the target protective behaviour of engaging with others/being sociable is one that is influenced by both opportunity and motivation.

Finally, one protective factor that was proposed was that of employers informing potential new employees of the "realities" of rural work and living. In terms of the COM–B model, this would be seen as providing employees with the *psychological capability* to make informed decisions about whether to take on a role in the West Highlands and Skye. We might therefore suggest it is integral to forewarn and therefore forearm new employees; equipping new employees with the capacity to deal with the challenges that they might face. As we discussed earlier, adaptability could be something that employers integrate into the training of new employees

[29] Brummett, B.H., Mark, D.B., Siegler, I.C., Williams, R.B., Babyak, M.A., Clapp–Channing, N.E. and Barefoot, J.C., 2005. Perceived social support as a predictor of mortality in coronary patients: effects of smoking, sedentary behavior, and depressive symptoms. *Psychosomatic medicine*, *67*(1), pp.40–45.
[30] Pahlevanzadeh, F. and Jarollahi, O., 2011. Analysis of the effect of social factors on mental health of rural elderlies. *Community Development (Rural and Urban)*, *3*(1), pp.65–84.
[31] Letvak, S., 2002. The importance of social support for rural mental health. *Issues in mental health nursing*, *23*(3), pp.249–261.
[32] Ryff, C.D., 1989. In the eye of the beholder: views of psychological well–being among middle–aged and older adults. *Psychology and aging*, *4*(2), p.195.
[33] Wilson, J.M., Smith, K., Strough, J. and Delaney, R., 2021. Knowing you are there makes the difference: perceived social support, preferences for using support, and health. *Journal of Women & Aging*, *33*(4), pp.396–410.

by exposing the employee to situations they might encounter in their new work roles[14]. According to the TDF, a more granular understanding of psychological capability is providing knowledge or providing an individual with the procedural skills. This approach seems highly relevant given what was expressed by several of the participants in our study. Adaptability may therefore be more likely with increased knowledge about what to expect. As found in past research, adaptability results from a combination of knowledge, attitudes, personality, values, and interests[34]. We might also propose that employee training should include all the nuances of rural living as well as work-specific training.

CONCLUSIONS

Throughout this report, results from interviews with lone workers in the West Highlands and Skye and their employers have been presented in relation to a variety of themes broadly categorised as a) Rural Fit and b) the Physical and Social Environment.

Although there are lifestyle preferences and personal characteristics which help individuals to fit well into living and working in the West Highlands and Skye, there are aspects of their physical, social, and work environment which can influence their ability to maintain mental health and well-being in the longer term. Indeed, some external aspects can erode individual resilience, such as lack of management support, lack of acceptance or integration within a community, and insufficient opportunity to supplement what is available locally by getting away or accessing resources from elsewhere.

It is clear from this report that there is broad range in terms of the quantity and quality of social interaction preferred by individual lone workers in maintaining their mental health and well-being. Furthermore, there are clearly different means with which individuals and employees might ensure or facilitate these connections. It is therefore important to avoid making assumptions about what social support rural lone workers need and to recognise the positive contribution of personally acceptable levels of social isolation in relation to the mental health

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[34] Ployhart, R.E. and Bliese, P.D., 2006. Individual adaptability (I-ADAPT) theory: Conceptualizing the antecedents, consequences, and measurement of individual differences in adaptability. In Understanding adaptability: A prerequisite for effective performance within complex environments (pp. 3-39). Emerald Group Publishing Limited.

and well-being of some. Indeed, the opportunity to be alone and away from people is a highly desirable aspect of life for many lone workers in the area.

Within the sub-theme A Dispersed Social Network, Adaptability and Flexibility, reference was made to the need for lone workers to be connected to a peer support network (where colleagues were dispersed) and to be supported by their managers (in employment situations where managers were not local). Where there are clear benefits for rural lone workers in being able to access social networks and training online, there is also a risk that they are now more isolated in their work because of not getting away. In times of increased costs and decreasing budgets, employers may not view the costs involved as justifiable, therefore it is important to also consider cost effectiveness in relation to potential improvements in health and retention of staff.

Employers, and indeed families and friends, should liaise with individual rural lone workers as to their preferences for the quality and quantity of social support. Failing to consider the needs of the individual increases the risk that self-sufficient, resilient individuals become less so over time. Importantly, to counteract the unseen nature of work undertaken by lone-workers and their lack of visibility in the workforce, efforts to value individuals and to recognise the contribution they make to sustainable communities in the West Highlands and Skye is recommended to support their mental health and well-being.

Appendix I: Research Approach

A grounded, qualitative approach to data collection has been taken which, a) was broad enough to capture complexity, nuance and differences based on local geography, local communities, and work-related supports and b) was aligned to rural lifestyles and preferences for privacy.

This combined approach has been designed to allow data relating to the unique lived experiences of participants to be analysed along with established protective factors. The aim of the approach was to provide both local and research contexts for findings, to facilitate comparison with other cohorts and to highlight strengths which could be enhanced and gaps which could be filled.

Prior to data collection, ethical approval was obtained through the SRUC Social Science Ethics Committee.

The researchers have experience of conducting interviews with vulnerable cohorts and used skills of listening and signposting. Information about where to access support was provided to participants prior to each interview.

Where consent has been obtained, an audio recording of interviews was made and transcribed; if consent for audio recording was not obtained or if the environment was not suitable for recording, the researcher took notes.

Appendix II: Methodology

Semi-structured interviews were conducted by telephone, online, and in-person. Open questions were used to ensure the lived experience of individuals was captured. Two sets of interview questions were used: one for lone workers and one for the employers of lone workers.

Participants who were employers of lone workers / represented lone workers commonly had current or previous experience of lone working in the West Highlands and Skye. As a result, their own personal experiences and their responses as employers are inseparable in the data and the two datasets of employers and lone workers have been combined.

Appendix III: Interview Questions

Interview questions for lone workers:

1. What is your job / role and in what ways might you be described as a lone worker?
2. How much do you agree or disagree with the following?
   (the options are strongly disagree, disagree, neutral, agree, strongly agree)
   a. I tend to bounce back quickly after hard times.
   b. I have a hard time getting through stressful events.
   c. It does not take me long to recover from a stressful event.
   d. It's hard for me to snap back when something bad happens.
   e. I usually come through difficult times with little trouble.
   f. I tend to take a long time to get over setbacks in my life.
3. What would you say are the main challenges of your job, as a lone worker?
4. How do you manage these challenges?
5. Is there anything you would recommend for other lone workers in the West Highlands and Skye to be resilient and to protect against the negative impacts?
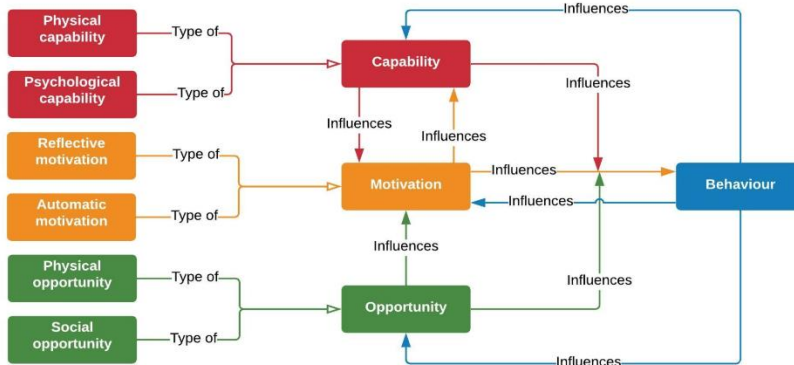
Interview questions for employers of lone workers:

1. What is your business and in what ways might your employees be described as lone workers?
2. What would you say are the main challenges they face as lone workers?
3. In what ways are they supported as employees to manage these challenges?
4. What could you consider as the common features / circumstances of the employees that seem to manage well / thrive?
5. Is there anything you would recommend for employers of lone workers in the West Highlands and Skye to help their staff to be resilient and to protect against the negative impacts?

Appendix IV: COM-B & Behaviour Change Wheel Categories

Principles 1: COM-B Coding & Categorisation
Text coded for evidence of influences on the desired outcome i.e., good mental health and well-being. The influences can act as barriers or drivers of good mental health so can be protective factors or harmful factors.
Codes & Behaviour Change Wheel Categories:
Capability: *do participants report psychological or physical capability factors that influence behaviours?* • **Psychological Capability** – reference to the psychological capability of the person to achieve the target behaviour i.e., do lone workers know or have the skills to look after their mental health and mental well-being? Is there reference to a mind-set or schema that protects them from the negative impacts of lone and isolated working? • **Physical Capability** – reference to the physical capability of the person to achieve the target behaviour i.e., do lone or isolated workers have any physical impairments that would influence their ability to look after their mental health & well-being? **Opportunity:** *do participants report physical and social opportunity factors that influence behaviours?* • **Social Opportunity** – reference to social environments that either drive or encumber the desired outcome of good mental health and well-being e.g., do people have good social support? Do people feel pressure to behave in certain ways from outside influence? Or to go along with the majority? • **Physical Opportunity** – reference to physical environments that either drive or encumber the target behaviour e.g., do lone or isolated workers have the resources or materials with which to achieve or maintain good mental health and well-being? **Motivation:** *do participants report levels of motivation that influence their behaviours?* • **Automatic motivation** – references to drive states, desires, and emotional reactions to the target behaviours e.g., are the behaviours a result of habits or feelings of pleasure. • **Reflective Motivation** – references to intentions and evaluations of consequences e.g., do lone or isolated workers engage in self-conscious planning & evaluation e.g. beliefs about what is good and bad?

Appendix V: COM–B Model and Theoretical Domains Tables

COM–B Model of Behaviour [7]

Theoretical Domains Table [4][8]

Domain	Descriptions	Constructs	COM-B
Knowledge	An awareness of the existence of something.	Knowledge Knowledge about condition/scientific rationale Schemas + mindsets + representations Procedural knowledge i.e., *knowing how to do something*	Psychological Capability
Skills	An ability or proficiency acquired through practice.	Skills: *cognitive, physical & interpersonal* Competence/ability/skill assessment Practice/skills development Coping strategies	Psychological & Physical Capability
Social/professional role and identity	A coherent set of behaviours and displayed personal qualities of an individual in a social or work setting.	Identity Professional identity/boundaries/ role Group/social identity Professional confidence Social/group norms Alienation/organisational commitment	Reflective Motivation
Beliefs about capabilities	Acceptance of the truth, reality or validity about an ability, talent, or facility that a person can put to constructive use.	Self-confidence Perceived competence Self-efficacy Perceived behavioural control Beliefs Self-esteem Empowerment Professional confidence	Reflective Motivation
Optimism	The confidence that things will happen for the best or	Optimism Pessimism	Reflective Motivation

	that desired goals will be attained.	Unrealistic optimism Identity	
Beliefs about Consequences	Acceptance of the truth, reality, or validity about outcomes of a behaviour in a given situation.	Beliefs Outcome expectancies Characteristics of outcome expectancies Anticipated regret Consequents	Reflective Motivation
Reinforcement	Increasing the probability of a response by arranging a dependent relationship, or contingency, between the response and a given stimulus.	Rewards (proximal/distal, valued/not valued, probable/improbable) Incentives Punishment Consequents Reinforcement Contingencies Sanctions	Automatic Motivation
Intentions	A conscious decision to perform a behaviour or a resolve to act in a certain way.	Stability of intentions Stages of change model Transtheoretical model and stages of change	Reflective Motivation
Goals	Mental representations of outcomes or end states that an individual wants to achieve.	Goals (distal/proximal) Goal priority Goal/target setting Goals (autonomous/controlled) Action planning Implementation intention	Reflective Motivation
Memory, attention and decision processes	The ability to retain information, focus selectively on aspects of the environment and choose between two or more alternatives.	Memory Attention Attention control Decision making Cognitive overload/tiredness	Psychological capability
Environmental context and resources	Any circumstance of a person's situation or environment that discourages or encourages the development of skills and abilities, independence, social competence, and adaptive behaviour.	Environmental stressors Resources/material resources Organisational culture/climate Salient events/critical incidents Person × environment interaction Barriers and facilitators	Physical opportunity
Social influences	Those interpersonal processes that can cause individuals to change their thoughts, feelings, or behaviours.	Social pressure Social norms Group conformity Social comparisons Group norms Social support Power Intergroup conflict	Social Opportunity

		Alienation Group identity Modelling	
Emotion	A complex reaction pattern, involving experiential, behavioural, and physiological elements, by which the individual attempts to deal with a personally significant matter or event.	Fear Anxiety Affect Stress Depression Positive/negative affect Burn-out	Automatic Motivation
Behavioural regulation	Anything aimed at managing or changing objectively observed or measured actions.	Self-monitoring Breaking habit Action planning	Psychological Capability

Appendix V1: Project Team

Dr Kate Lamont

Kate has lived and worked in different areas in the Highlands and Islands of Scotland, in different roles. Her background in the third and public sectors, community development, and public health provides a broad understanding of aspects related to rural health and well-being in individuals and communities. She has led and participated in rural mental health projects for groups such as migrants, farm vets, farmers, and young people.

Kate is experienced in mixed methods, public health research with a focus on qualitative work. She is interested in ensuring methods are designed to fit with the needs and preferences of those who are the focus of the research.

Dr Lesley Jessiman

Lesley is a psychologist and has been involved in a wide range of human related projects, for example: pathological & typical cognitive ageing; social isolation and loneliness during COVID-19; resilience & social and emotional loneliness; technology & loneliness; elder abuse; pathological ageing and depression. Her current work with SRUC involves looking at the lived experiences of farmers and vets. She is currently developing a One Welfare research and intervention program looking at the interrelationships between farmer and farm animal welfare and older adults and companion animal welfare.

Lesley is a mixed method researcher with experience in experimental design, psychological assessment, survey design, discourse analysis and thematic analysis.

The project team also included Jo Baughan, Research Assistant.

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