Understanding protective factors in lone and isolated workers in the West Highlands and Skye: Literature Review, June 2023

SRUC

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Introduction

Not only popular as a holiday destination internationally, in 2019 – as a result of an increase in domestic tourism – the Highlands saw a 30 percent increase in the number of overnight visits compared to the previous year (Highland Fact Sheet 2019). With the advent of the Covid-19 pandemic in March 2020, campervans started flocking to the Highlands with people seeking freedom in the isolation, craving escape from urban restriction. This created an outcry from local people and Government officials urged people to go home and "don't come to the area to do your "self-isolation" (https://www.bbc.co.uk/news/uk-scotland-highlands-islands-51990534). Covid-19 came with assertions as to where we felt safe and with whom, and the Highland inhabitants' collective voice expressed their right to their lone and isolated places during a pandemic. Isolated places often invite a sense of expansion of one's sense of self, a slowing down, time to reflect and "be" at one with wild nature. We often seek out peace and quiet places to restore ourselves. In recent years there has been an increase in green space "prescribing" in mental health and well-being initiatives. (https://www.nature.scot/professional-advice/contributing-healthier-scotland/our-natural-health-service/green-health-partnerships). Highland's page is On the VisitScotland/Alba website (2023) the Highlands is described as "with welcoming people, a unique culture, dramatic landscapes, romantic castles and a fascinating history" as well as being "one of National Geographic's 'Best of the World' destinations for 2023. (https://www.visitscotland.com/places-to-go/highlands).

Given all the aforementioned, it may come as some surprise that a 2021 report by Dr Tim Allison found a statistically significant higher rate of suicides between 2016 and 2021 in the Highlands compared to the rest of Scotland. There is also evidence that specific rural occupations such as farming and forestry have a higher proportion of deaths from suicide than average (The Annual Report of the Director of Public Health, 2021). According to *The Creating Hope Together:* suicide prevention strategy 2022 – 2032, 88% of people that die by suicide in Scotland are of working age with two-thirds of these in employment at the time of their death as well as highlighting social isolation, among others, as an area of priority (Scottish Government, 2021). According to the World Health Organisation (2022), employment could also be considered both a protective factor and a risk factor for suicide, stating "everyone has the right to work and all workers have the right to a safe and healthy working environment". The WHO propose that mental health issues caused by work are preventable and therefore much can be done to protect employees from work-related mental illness.

Historically, the Highlanders were and still are hard physical workers, working often alone outdoors in the harsh elements, crofting, fishing, farming. There is a heritage culture of art and craft, spinners, and knitters, as well as painters and writers who

actively sought and continue to seek the inspiration in the isolation for their creative work by being born there or consciously choosing to move to inhabit those wild landscapes. The current employers in the West Highlands and Skye are varied. As noted by the Highlands and Islands enterprise, "we have a highly talented and diverse workforce as well as an excellent network of suppliers, industries, and supply chain operations. We have a strong labour market with higher employment, lower unemployment and more employees in high or medium skilled occupations than Scotland as a whole" (https://www.hie.co.uk). Other employment within West Highlands and Skye includes large employers like NHS Highlands, Highlands Council and Scottish Land, forestry and timber companies, private country sporting estates, tourism, activity holidays, holiday lets and hotelier business, and huge aquaculture developments farming loch and sea-acres of fish. Energy companies are in the area, providing both wind power and hydropower.

Based on 2011 Census data (Highland Council Website), the Highlands has a higher proportion of economically active citizens than in Scotland as a whole (71.5% / 69%) with a higher proportion of those in full-time employment working 49 hours or more per week (15.8% / 11.7%). The Highland area has more than double the proportion of people employed in Agriculture, Forestry and Fishing than more widely in Scotland (4.3% / 2%) and a slightly higher proportion of people working in the Caring, Leisure, and other service category (10.3% / 9.7%). There is a higher proportion of home ownership in the Highlands (67.2% / 62%) and a smaller proportion of single-person households (31.7% / 34.7%). When results from the 2022 Census are published, it will be possible to see the cumulative impact of Covid-19 along with demographic and other trends. Interestingly, even before patterns of working at home changed as a result of efforts to control the pandemic, the proportion of people working or studying at or from home in the Highland area was higher than in Scotland more widely (14.9% / 11.3%).

The Purpose of the Literature Review

In undertaking this literature review the focus was to uncover the current evidence of the protective factors for mental health and wellbeing in lone and isolated workers in West Highlands and Skye. We also looked at the UK in general as well as non-UK countries. This review constitutes part of the scoping phase of this project, building on the broader insights of a market research report of lone and isolated workers in West Highlands and Skye, commissioned by Samaritans Scotland. The report identified a need to better understand the mental health and wellbeing of lone and isolated individuals working in these regions. The report stated this research was a priority and that social isolation can occur even when surrounded by others. Thus, even if we are surrounded by others, there may be too many differences between ourselves and those who surround us that we can still feel socially lonely.

Of course, this points to the important distinctions between social isolation, social loneliness, and emotional loneliness. Loneliness is identified as a perceived discrepancy between the desired and actual social relationships that someone has and is therefore also referred to as *perceived social isolation* (Peplau & Perlman, 1982). Loneliness is also characterized by a perceived lack of control over the quantity and in particular the quality of one's social activity (Newall et al., 2009; Newall & Menec, 2019). Social isolation is more of an objective or physical measure, whereby we can identify social isolation by the number of people someone has around them or by the physical circumstances of the individual. However, it is important to note that someone who is socially isolated might not necessarily be lonely. Loneliness is defined as a negative emotional state caused by a disconnect between an individual's actual and desired interpersonal experiences (Crewdson, 2016). Weiss (1974) also notes there are two separate domains of loneliness, i.e., social, and emotional loneliness. Weiss defines social loneliness as someone's perception of being lonely because of being in contact with very few people and environments that one would find enjoyable and fulfilling. Emotional loneliness differs from social loneliness in the sense that someone may have many people around them and opportunities to interact with people in different environments but still feel lonely because they do not find their contact with others as meaningful or satisfying. This mirrors the point noted by the market research report carried out by the Samaritans, such that loneliness can be a manifestation of perceived differences between ourselves and others.

Loneliness has been identified as a reliable predictor of depression and anxiety in both older and younger adults and is significantly associated with morbidity and mortality amongst older adults specifically (WHO, 2021). One might therefore conclude that lone workers are at increased risk of experiencing social and/or emotional loneliness and that loneliness may transcend into other mental health problems. Of course, not everyone who works alone or remotely experiences loneliness. However, there is an increased risk of loneliness in these types of work environments. This was best illustrated during the COVID-19 pandemic, with increased feelings of job insecurity and loss of meaning in one's work found for those forced to work remotely (Ouwerkerk & Bartel, 2020). Work related loneliness is defined as a negative feeling that manifests when an employee perceives a discrepancy between their desire and actual connection to others at their place of work (Cacioppo & Hawkley, 2009; Peplau & Perlman,1982). Remote workers are also disadvantaged in the sense that they often do not have access to, or the opportunity for, work-related relationships. It is these types of relationships in the workplace that can offset feelings of loneliness and increase feelings of social connection and self-worth (Lee & Ashforth,1996). Becker and colleagues (2022), argue that in addition to increasing perceived job control, employees and organisations should make concerted efforts to help remote working employees feel a sense of belonging. They suggest this can be achieved through creating

virtual spaces for more personal connections to occur and by organising face-to-face days for work colleagues to meet and socialise.

So, what does a lone worker look like today post COVID-19? The Health and Safety Executive (HSE) of the Highland council describe lone workers as "those who work by themselves without close or direct supervision". However, for the purpose of this guidance, this definition has been expanded to include: those who work by themselves and/or work in the community and/or with only limited support arrangements, which therefore exposes them to risk by being isolated from the usual back up support – whether they regularly work alone or are only occasionally alone, and do not have access to immediate support from managers or other colleagues. (Lone Worker Policy, The Highlands, and Western Isles Valuation Joint Board, 2014). We should also note that lone working is not where individuals experience transient situations in which they find themselves alone, but where individuals are knowingly and foreseeably placed in circumstances in which they undertake work activities without direct or close supervision. In practical terms, persons are working alone if they have neither visual nor audible communication with someone who can summon assistance in the event of an accident or illness (University of Highlands and Islands, 2022).

In 2019, a Health and Safety Executive representative attending a Lone Worker Safety conference stated there was a "need to review the policy" noting concerns about the "impact on the mental health and well-being" and "the advice we give to employers" (Health & Safety Network, 2019). In Scandinavia a report on lone workers also proposed that "psychosocial risk factors must also be assessed when working alone" and as such there is a need to look beyond just the physical risks to lone workers. The report argued that the negative effects of lone work are found at the intersection of physical and psychosocial health risks and the duration or proportion of lone work (Fafo, 2016). Sverke, et al. (2017) in a Swedish report commissioned by the Work Environment Authority reported "when a job strain situation also includes low social support, that is, being isolated, the work situation that arises is usually described in terms of iso-strain." (p.36) They also note that a "lack of support and encouragement from colleagues is common in occupations where individuals to a high extent work alone, such as cleaners, agricultural workers, gardeners, forestry workers and fishermen" (p. 45). Further, they note that "agricultural workers, hunters, forestry workers and fishermen tend to experience, to a greater extent, a lack of support from managers, as do plant operators and tool machine operators." (p.45). Sverke and colleagues also noted that "most of the existing research has traditionally focused on negative outcomes rather than positive outcomes such as well-being." (p.54) and that "well-being does not focus on dysfunction and health deficits, but on the individual resources that can promote individual functioning in different areas of life (p.56.) These findings are of course echoed in the limited literature on the protective factors promoting

mental health and well-being in lone and isolated workers in rural areas like Skye and the West Highlands.

The Literature Review: Methods

Although we did not carry out a systematic review of the literature, we made attempts to carry out an exhaustive search of academic papers on mental illness protection for lone and isolated workers in the West Highlands and Skye specifically, and in Scotland in general. Our search strategy involved using a series of search engines: Science Direct, Google Scholar, Psyc Info, PubMedCentral and Medline. The key terms that we used in various combinations in our searches were: *Scotland, Highlands, Skye, rural*, *mental illness*, *protection*, and *social isolation*. We also combined these key words using the Boolean operator "AND" with other key words such as *suicide, remote, work, employment,* and *wellbeing*. When the searches generated few results, we added more specific key words such as *farmers, forestry workers, general practitioners, migrant workers, healthcare workers, nurses, fishermen/fisherperson,* and *grounds person*.

As previously noted, our review revealed a clear and significant neglect in the literature. Very few were generated for studies that had looked at the protective factors for suicide behaviours amongst lone and isolated workers living in the West Highlands and Skye. When we cast our research net wider to look at other parts of Scotland, the UK and other non-UK countries there remained a relative dearth in the literature. Most studies having only a tangential link to our principal research focus. The other factor to note is that the principal focus of the research that was generated by our searches, was often the risk factors, with much less focus on the protective factors. However, this was not of concern given the research shows a complex interplay exists between the risk and protective factors. As such, the risk factors play an important role in understanding, which factors can increase resilience and reduce vulnerability to suicide and suicidal behaviours. However, we should note that protective factors are not simply the absence or the opposite of risk factors. As noted by Gutierrez and Osman (2008) identifying suicide protective factors through research, when combined with risk factors can lead to the development and improvement of suicide models and interventions. However, we should note, this remains a difficult task. We are aware that the protective factors function to diminish negative outcomes and/or promote positive outcomes; however, the protective mechanisms involved remain complex, and therefore difficult to delineate.

Although it is commonplace for the literature to drive a study in a more deductive approach, there are instances, such as we have with this study, where the literature is so limited that there is a need for research to be carried out to fill the gaps in the evidence. It is therefore our proposal given the significant dearth in the literatures that the protective factors are uncovered by exploring the lived

experiences of lone and isolated workers currently living in the West Highlands and Skye. This approach to research would therefore be categorised as more inductive in nature. We suggest the development of interviews, focus groups and surveys draw from the extant literature on protective factors in general, and ask lone and isolated workers living in rural Scotland to provide insight on their levels of resilience, problem solving skills, perceived self-efficacy, hopefulness, management of mental illness such as depression and anxiety, experiences and management of social and emotional loneliness and agency in keeping socially and psychologically connected. Identifying the risk factors will also help to provide further insight into how to best protect individuals in the future. It is indeed future studies such as this one, that will help to build a body of evidence that currently does not exist or in the very least has been somewhat overlooked or neglected.

Risk Factors for Suicide Behaviours: What do we currently know?

Across all geographical locations, genders, age groups, ethnicities and so forth, mental illness is a key risk factor for suicidal ideation, attempt, and completion (McLean et al., 2008). Other risk factors pertain to substance misuse (Benda, 2005; Goodwin, et al., 2003), personality type (Batty et al., 2018), poverty/low income (McMillan, et al., 2010), social isolation & loneliness, (Baller & Richardson, 2002; Shaw et al., 2021) and a history of childhood abuse (Deykin et al., 1985). Please note, this is not an exhaustive list of the risk factors.

Protective factors for Suicide Behaviours: What do we currently know?

In the extensive reviews that have been carried out some of the key protective factors is increased problem-solving and self-agency (Chu et al., 2018; McLean et al., 2008) and having a reason for living (Galfalvy, et al., 2006; McLean, 2008). Resilience has also been identified as a moderator of stressful life events that may otherwise lead to suicide behaviours (McLean et al., 2008; Sher, 2019). Other protective factors pertain to social support (D'Augelli, et al., 2001; Nock et al., 2008), and optimism (Hirsch, et al., 2007). Again, this is not an exhaustive list of protective factors. Of course, protective factors, like risk, are also influenced by individual factors such as age, gender, personality, life histories, cognitions, sexuality, ethnicity and so forth. A "one size fits all" approach to suicide protection should therefore be avoided.

Suicide Across Occupations & Locations

Past research has revealed that male doctors, pharmacists, and veterinarians had an increased Proportional Mortality Ratio (PMR) for suicide in England and Wales, between 1982–1987 and 1991–96. For females, there were also higher PMR for suicide amongst doctors, pharmacists, veterinarians, nurses, and low-paid occupations such as in waitresses, cleaners, and other domestic workers (Stark,

et al., 2006). More recently, research has revealed that men working in construction and decorating are 35% more likely to commit suicide than the national average for men, and female nurses are 24% more likely to commit suicide than the national average for women (Government Statistics England, 2017). Of course, the statistics also vary geographically, with differences found between urban and rural areas. For example, rural areas have higher rates of suicide with 12.6 and 13,2 per 100,000 people compared to urban areas with ranges of 11.0 to 11.6 per 100,000 people (Helbich et al., 2017). We might therefore assume, given the evidence, that certain types of employment in rural areas such as the West Highlands and Skye, might place an individual at risk for suicide behaviour. Living in rural areas for example, is associated with increased social isolation, loss of social connectedness with family and friends, lower levels of income and increased stigma surrounding visiting mental health care specialists. All of these factors have been associated with suicide behaviours (Helbich et al, 2017; Kapusta, et al., 2008).

Stark et al, (2006) also reported that people in some rural occupations have a higher-than-expected Proportional Mortality Ratio (PMR) for suicide compared to other occupations. They found farming deaths were overrepresented in suicide and undetermined death figures in rural areas. They also found that forestry workers, gardeners, and fisherman had increased PMRs amongst the 45-64 age group in particular. The authors proposed firearm availability most likely played a role in the high rate of suicide. Of course, it is important to note here that having access to firearms is not the sole determinant of suicide, this is only one of several contributing factors. As noted by Stark and colleague, those with access to firearms do not always commit suicide using a firearm.

Farmers: Risk & Protective Factors

The World Health Organisation (2014) propose that suicide among occupations such as farming is a function of complex interactions between the individual, stressful working conditions and their environment. As one of the most stressful occupations, mental illness is common amongst the farming community (Fragar et al., 2010; Malmberg et al., 1999; Roberts & Lee, 1993). Some of the stressors that lead to mental illness in farmers are worries about finances (Eberhardt & Pooyan, 1990; Gallagher & Sheehy, 1994,), concerns about increasing paperwork and legislation (Malmberg et al., 1997; McGregor, et al., 1995), lack of access to mental health services (Judd et al., 2001) and more recently, concerns about the effects of climate change on farming (Howard et al., 2020). Research has also shown that the factors involved in suicide amongst farmers are mental illness (Beautrais, 2018; Bhise et al., 2016; Deary et al., 1997), social isolation (Malmberg et al., 1997; Wheeler et al., 2021, 2023), and a lack of social connectedness and support (Furey et al., 2016; Wheeler et al., 2021, 2023). Farmers who commit suicide also commonly have a history of mental illness and/or alcohol dependence (Brumby et al., 2013; Fraser

et al., 2005). Research has also found that farmers who have committed suicide had sought medical attention in the weeks prior to their death but had failed to mention experiencing mental illness to their doctor (Malmberg et al., 1997). It is thought that a perceived lack of anonymity might prevent individuals from "opening up" about their problems to doctors in smaller local communities in particular (Malmberg et al., 1997). Others have also found that residents do not seek medical attention for mental illness for fear that everyone will "find out" (Parr, Philo & Burns, 2004). Thus, the close-knit rural communities, which may be advantageous in terms of social connectedness also serve to have a damaging effect in terms of individuals seeking help. Research also shows that older farmers are less willing to talk about mental illness compared to younger farmers, suggesting a perceived stigma associated with mental health (Hopkins et al., 2022). Research also shows the insular nature of remote rural farming communities prevent the adoption of new beliefs and practices e.g., talking about mental illness or emotions (Ramos et al., 2015). It is also thought that in rural areas, there is a distinct conception of masculinity in terms of stoicism and individualism, which may make male farmers unwilling or unable to seek help for mental health problems (Alston, 1982). Another factor identified in past research was rural deprivation e.g., a shortage of low-cost housing, lack of transport, unemployment, and a lack of local facilities (Stark et al., 2006; Mitchell, 2004; Stockdale et al, 2000). Of course, issues of deprivation are not exclusive to farmers and significantly impact all ages, genders, and occupations (Stark et al., 2006).

We should also note that not all farmers with mental illness, who are socially isolated, lonely, or have problems with substance misuse commit suicide. As such, there are clear protective factors at play. The *risk-protective* model proposes there is an interaction between the risk and protective factors such that the strength of the relationship between risk and an outcome (e.g., suicide behaviours) is dependent on the presence of protective factors (Hollister et al., 2001). In essence, this model proposes the presence of protective factors weakens the relationship between risk and outcome. For example, a farmer who experiences stress will be less likely to experience suicidal ideation when more protective factors are present e.g., higher levels of resilience, and increased social support. The *protective-protective* model also proposes that the more protective factors in place, the weaker the relationship between risk and outcome becomes (Hollister et al., 2001).

The empirical evidence points to the following as some of the protective factors for farmers:

- Online or visiting doctors not known to the community to increase feelings of anonymity for farmers.

- Practical support for farmers to help them deal with financial problems, retirement, housing, and re-training for those who wish to leave farming.
- Strategies for increasing social supports available, especially for those in more isolated areas (e.g., self-help groups, befriending schemes) (Gregoire, 2002)
- Normalising mental illness amongst the farming communities through educational
- Removing firearms from farmers who are identified as at risk for suicide could be an appropriate precaution in individual cases but would of course require careful communication and sensitivity (Stark et al., 2006; Gregoire, 2002).
- Increased awareness of the issue of firearms within the farming community, formal and informal support networks, and primary health care teams (Gregoire, 2002)
- Note: Considering the Three-Step Theory of Suicide (Klonsky & May, 2015), which posits that a) suicidal ideation is caused by the combination of unbearable pain and hopelessness, b) suicidal ideation is strong when one's pain exceeds or overwhelms one's connectedness & c) transition from strong suicidal ideation to potentially lethal suicide attempts is facilitated by dispositional, acquired and practical contributors to capability for suicide, removing firearms is an important protective factor amongst those who have access to them.

The following are related specifically to social isolation & loneliness in farmers (please see Wheeler et al., 2021):

- *Regular social contact and getting off the farm*: whilst farming-related social activities are beneficial, non-farming activities offer the opportunity to mentally break from work and gain a different perspective.
- *Taking time off/taking a holiday*: essential for mental well-being and offsetting loneliness. Spending less time working and more time with family and friends
- *Socialising and talking with other farmers*: talking with farming peers offers the opportunity to share problems and anxieties with other people experiencing similar issues. Such discussions might take place informally with neighbours or within/around farm-related networks, discussion groups and events. Young Farmers clubs noted as valuable for providing social opportunities and connections.
- *Building good relations with the local community*: social isolation mitigated through farmers having good relationships with the local community. Individuals involved in community activities identified as invaluable.
- *Self-help strategies*: farmers who have experienced loneliness and/or mental health problems found their own ways of easing or coping with their negative feelings, which included reading/watching YouTube videos to

increase their understanding of mental health issues; listening to podcasts; taking more exercise; and planning/managing time.

In drawing from the loneliness literature we should note that loneliness is offset by having a close and meaningful attachment to another individual, being socially integrated into one's environment such as involvement in organizations or community groups, receiving care and emotional nurturance when needed, having some confirmation or validation of our own self-worth, knowing there is support available when it is needed, and someone there that we can turn to for advice and guidance through adverse events and experience (Weiss, 1974). For farmers who live in remote locations and who are alone, it is important that we ensure their social connection and emotional nurturance needs are met and that those needs are informed by the individual. What is a meaningful and fulfilling connection for one person won't necessarily be meaningful and fulfilling for another. We must also consider the occupation of the individual, such that a farmer commonly has little time to socialise, and this can be compounded with issues such as low income. We must therefore "think outside the box" in terms of how we might protect farmers from mental illness.

Fishery & Forestry: The Risk & Protective Factors

Research shows an overall higher rate of suicide amongst agricultural, fishery, and forestry workers, compared to other occupations (Klingelschmidt et al., 2018). One factor identified as placing these workers at increased risk is having access to lethal means of ending one's life (Milner et al., 2017). Other factors pertain to exposure to ending the lives of animals, which according to *interpersonal theory of suicide* behaviours (Joiner, 2005) desensitises individuals to death and lowers inhibitions about suicide. According to interpersonal theory, through repeated exposure or practice an individual can habituate to physically painful and fearful aspects of death or self-harm (Van orden et al., 2010). The habituation component of interpersonal theory of suicide is more specifically explained in terms of *opponent process theory* (Solomon & Corbit, 1974). Opponent process theory states that emotional responses result from the summation of two underlying valanced processes. In terms of ending the lives of animals – as is commonplace in agriculture, forestry, and fishery work – the initial response may be fear because one does not wish to inflict pain on the animal nor end the animal's life. Over time, the primary emotion of fear or empathy remains stable, and the opposing emotion may become more amplified e.g., indifference or a dulled emotional response. This is not to say these workers no longer feel compassion for the animals they must cull or send to slaughter, it is simply that their job has resulted in an assuage of the primary emotions they may have initially felt. It is therefore this habituation to death that is thought to place some of these workers at increased risk of suicide behaviours.

Other factors that are thought to place these workers at increased risk are long hours and physically taxing work, high levels of stress associated with the job, extreme weather conditions and social isolation (Klingelschmidt et al., 2018). One study of agriculture, fishery and forestry workers found higher rates of suicide among casual and fixed-term workers (Alicandro et al., 2021). The authors proposed that the reason for higher rates among these workers is most likely related to low employment protection, job insecurity and financial difficulties. A Korean study also found the most vulnerable occupation during times of economic crisis is the agricultural, forestry and fisheries sector, with people working in these sectors having higher suicide mortality rates compared to other occupations (Yoon et al., 2011).

In identifying some of the key risks, researchers have also identified some of the protective factors for agriculture, forestry, and fishery workers. We should note that the protective factors previously noted for farmers would also apply here:

Protective factors

- Social support has been identified as a key protective factor for those individuals working in agriculture, forestry, and fisheries (Khang et al., 2005; Yoon et al., 2012)
- Strategies for increasing social supports available, especially for those in more isolated areas (e.g., self-help groups, befriending schemes) (Gregoire, 2002)
- Taking time off/taking a holiday: essential for mental well-being and offsetting loneliness (Wheeler et al., 2021, 2023).
- In accordance with the Three-Step Theory of Suicide (Klonsky & May, 2015) we must (a) reduce pain, (b) increase hope, (c) improve connectedness, and/or (d) reduce capacity. In terms of (d) reducing capacity for suicide, this pertains to the removal of physical means (e.g., firearms/access to lethal chemicals) as well as removing or reducing psychological capacity (e.g., desensitisation to death that manifests from doing the job). The latter could be achieved through peer-discussion groups where workers are given the opportunity to hear a different, more helpful way of thinking about animal death for example. This can help workers avoid self-criticism or avoid inhibiting their emotions as a means of coping.

Healthcare workers in isolated & rural locations

The impact of lone healthcare workers in Scotland is also a relatively neglected area of research. However, there has been more recent research examining suicide in general practitioners (GP) (Doctors Association, UK, 2022; Gerada, 2018; Stark et al., 2006). In recent viewpoint articles in the British Journal of General Practice, two separate authors respond to the suicide of a general practitioner in Hawick

(Morrison, 2012; McCabe, 2013). Although this GP was not a lone worker nor living in a remote rural area, the two authors note that this GP most likely faced increasing pressures in terms of workload, and the ever-increasing bureaucracy associated with being a GP (McCabe, 2013). As noted by Stephen McCabe, "the litany of burnout, depression, alcoholism, drug misuse, and relationship breakdown among GPs goes largely unseen and unrecognised" (p35). We should also note, GPs have the knowledge and the means with which to take their own lives, which is a factor that places individuals at increased risk of dying by suicide (Hawton et al., 2011; Klonsky & May, 2015; Meltzer et al., 2008; Stark, et al., 2006). Given what we also know about the negative effects of living in isolated, rural locations one would assume that issues of burnout and depression for example, are compounded for some doctors living in remote or isolated locations.

Research in other countries for example, have found evidence of exhaustion and burnout amongst rural physicians. In one study of physicians working in the remote northern areas of British Columbia, a high rate of stress-related mental illness, namely depression and emotional burnout was found. There was also a relationship between depression and low job satisfaction. Although the direction of the relationship was undetermined, they did find that it was the physicians' perceptions of workload that was related to mental illness rather than actual hours worked. Those with the highest levels of mental illness also reported intentions or wishes to move out of the area (Thomassen et al., 2001). Other reports on rural practice have suggested that doctors face issues such as being unable to organise time away because there is no one else to cover their workload, having little support during times when there is a high volume of patients, and having to treat family and friends (Martel, 1995). In another study of Japanese rural doctors, researchers found perceive job control, high job demands and low social support from co-workers were significant predictors of burnout i.e., emotional exhaustion & depersonalization, (Saijo et al., 2018). In an examination of healthcare providers working in remote industrial worksites, researchers found health staff were commonly working past the boundaries of their discipline and skillsets. Thus, separated from the support of co-workers or peers and feeling unprepared to meet the demands of their job led to feelings of professional isolation. Healthcare workers in these remote sites also reported an emotional disconnect from their families (Adams et al., 2019).

Nurses also have a high rate of suicide (Choflet et al.,2021; Davidson et al., 2019). The UK mental health charity, the Laura Hyde Foundation (LHF) revealed 366 nurses who used its services between January and December in 2022, had attempted suicide. The charity reported that most of the nursing workforce report feeling "burnt out" and "worn down". Over 40% describe their mental health and wellbeing as "bad" or "very bad". Research has found that a severe level of stress at home and/or at work is associated with an increased risk of suicide. The use of

drugs such as diazepam also increased the risk of suicide fivefold. When drug use is combined with stress the risk increases eight-fold (Feskanich et al.,2002). Nurses working in rural areas also report higher levels of stress. Stress is commonly associated with a loss of anonymity whereby the nurses' patients are often their friends and families (LeSergent & Haney 2005). Other stresses pertain to professional development such that there can be a lack of access to more sophisticated technology and more skilled peers to learn form (Blue, 2002; Francis et al., 2002). Others note that loneliness is common amongst rural nurses as they commonly do not have anyone to share their feelings or professional issues with (Arnotti, 1984).

In identifying some of the key risks, researchers have also identified some of the protective factors for healthcare workers:

- To address the workload issue, we should allow rural physicians to decide for themselves how much work they are willing to do for a community.
- Issues such as being on call and 24-hour patient coverage should not become the responsibility of individual healthcare workers (Thomassen et al., 2001)
- Increase perceived job control as it serves as a protective factor for mental illness and burnout (Aronsson et al. 2017)
- Providing workers with opportunities to use and develop their skills & allow them more decision-making powers, improves perceived control over one's job and in turn reduces mental illness (Heponiemi et al. 2009; Saijo et al., 2018)
- Increase awareness of suicide risk, empathy, and additional support for GPs (Gerada, 2018)
- Social support provides a significant buffer for the effects of occupational stress in nurses (Parkes & von Rabenau, 1993).
- Increased autonomy and assertiveness offsets mental illness among nurses (Skinner & Scott, 1993).
- Efforts need to be made to promote a community that becomes 'home' for nurses and is attractive for individuals that have not grown up in rural areas (Kulig et al., 2009, 2015)
- Mindfulness Self-Care and Resiliency (MSCR) programs delivered to registered nurses working in rural or remote locations, enhances workplace resilience (Terrya et al., 2020).
- For remote health care workers who periodically make the long-distance commute to stay on a remote site for several weeks/months at a time, improved education for the role would protect them against stress related to professional isolation as well as enable them to provide improved health services to other remote site employees also affected by working in an isolated environment (Adams et al., 2019).

- Providing rural nurses with more skilled mentors can offset the problem of professional isolation as well as reducing workplace loneliness (Mills et al., 2007).

Lone Social care workers

There is however evidence that some individuals find working alone beneficial. In a report on lone workers in adult social care, the researchers found that 38% of workers found working alone had a positive impact on their mental health, 30% stated there was no effect and 25% said working alone had a negative effect on their mental health (Allan & Elliot, 2019). They also found 80 percent of social care workers reported that lone working had a positive impact on their job satisfaction. Workers noted that lone working invited minimal distraction, feeling more relaxed, having less exposure to workplace tensions, and not being in an office or a team was preferable especially as they also liked their own company. Allan and Elliot (2019) concluded that some individuals essentially prefer to work alone, which of course may have drawn these individuals to this type of work in the first place. It was suggested that these workers may also have the personality traits that draws them to lone working or that previous negative experiences of working in a team meant that lone working is now a more attractive alternative. It was noted that these workers made a positive and deliberate choice to be a lone worker and as such, derived considerable professional satisfaction from their jobs. These workers reported that the one-on-one, personalised care that they were able to provide their client was rewarding. When asked about effects of lone working on levels of stress and feelings of loneliness and isolation the online survey found a split in response with 39% stating it had a positive impact and 20% stating a negative impact on stress and 29% said it had a positive impact and 24% stated a negative impact on loneliness and isolation. The remaining workers responded with neutrality to these questions. The qualitative data revealed that for those who stated there was a positive impact, working alone made them feel calmer and more relaxed. Working alone was regarded as offering fewer work-related tensions and conflict. Lone working was also regarded as providing more autonomy that leads to increased self-confidence and self-esteem. For those who reported lone working had a negative impact on stress and loneliness and isolation, they reported feeling burdened by having to make decisions by themselves and not having the opportunity to confer with other colleagues. One participant for example stated: *"I have no-one to bounce ideas off or to motivate me when things are difficult at work"* (domiciliary/home care worker). For those carers living in rural areas, there was a feeling of being "penned in", being unable to relax in their client's homes and having fewer opportunities to socialise when they were not working. Several of the managers who responded to the online survey stated that they believed that working alone was the most significant contributing factor to stress

among their employees. An interesting point noted by the managers was that mental illness can escalate more quickly among the lone workers and go unresolved for longer because these workers are less "visible" to the employing organisations.

The report by Allan and Elliot (2019) highlighted some of the steps the employing organisations have taken to improve the mental and physical wellbeing of their employees. All these initiatives clearly serve as protective factors for mental illness, social isolation and loneliness among their lone social care workers:

- *Carer liaison officers*: a point of contact and support for lone workers. Support and advice are provided via ad hoc conversations and "catch-ups". Having these points of contact can help identify mental health issues early amongst lone workers, leading to earlier intervention.
- *Matching of lone workers to clients*: the managers acknowledged the importance of trying to match lone workers with clients that have similar personalities and/or interests. Although not always possible, this initiative is said to help mitigate the risk of loneliness and isolation becoming significant issues for lone workers. As previously noted, the lone workers often felt "penned in" living and working in their clients' homes and having few other opportunities to socialise on their days off.
- *Employee assistance programmes* & *Support to deal with difficult events*: where a client dies, or becomes seriously ill, some employers offer lone workers the opportunity to discuss their feelings with a psychologist or other mental health practitioners.

Migrant Workers & Rural Areas

Findings from a peer research project on EU migrant mental health in the Scottish Highlands (Stephen, & and Munoz, 2016) highlighted the importance of understanding attitudes to, and awareness of mental ill health in the country of origin of migrants. The project found a "reluctance to ask for help" and "an unwillingness to access services" as illustrated by the words of a project participant (Birchwood Highland, 2016);

> *"… in this country, when people are struggling, they would look for help, they would go and say, 'Look I have no money, I need help'. In my country people would be trying to cope themselves and then they'd just explode."*

A recommendation of the project was for a "peer support group" for migrants and subsequently the Highland Migrant & Refugee Action (HMRA) project was initiated and provided an online directory of services available to migrants in the Highlands. The project and the directory fit with recommendations from the World Health

Organization (WHO) (2019) to map outreach services or setting up new services if required.

A Churchill Fellowship report about the social inclusion of migrants and refuges in the Scottish Highlands highlighted a Norwegian policy which aims to promote both participation in the workforce and in community life as a mechanism for supporting integration (Daly, 2021, p.25). This project suggested that more research was required to better understand the role of rural community organisations play “particularly with regards to mental health”.

The WHO (2019) recommends the promotion of migrant mental health through social integration and suggests that although there is a limited evidence base for prevention and treatment interventions, principles and examples of good practice internationally should be used to drive research. Care should be taken, however, to ensure there is a robust evidence base for interventions as more research is required for interventions such as lived experience peer support programmes (Schlichthorst et al, 2020), for example.

As the “experience of migration can be complex and stressful, related to events before departure, during travel and transit, and after arrival”, it has been suggested that support systems should enable maintenance and reaffirmation of the identities of migrants in their new place of residence to support wellbeing and as a protective factor against suicide (Finlay et al, 2007; Gorman et al, 2018). In addition, there is a recommendation to prepare “host communities for their migrant workers” (Jentch, 2007), not least because the presence of migrants can present many challenges as well as opportunities in rural areas (de Lima, 2012[1]) and to mitigate against negative attitudes (Jentch, 2007).

The Migrants Matter project (Stephen, and Munoz, 2016; Birchwood Highland, 2016) reported that work-related stress, underemployment, and lack of recognition of qualifications were problematic to migrants to the Highlands. In the context of efforts by Highlands and Islands Enterprise to encourage labour migration (de Lima, 2012), there is a need to specifically address these issues in order to retain immigrants in rural communities and to avoid retraining costs for seasonal workers, not least to address challenges relating to the seasonal nature of employment of migrants in agriculture, fish processing and tourism (Gorman et al, 2018). Indeed, the hostile environment for migrants in the UK, not least for illegal agricultural workers with no recourse to public funds (NRPF), has been found to be linked to unpaid / below living wage labour in exchange for food and lodgings, often involving long hours and overcrowded accommodation (Hamilton et al, 2022).

In a recent study of rural poverty, much rural work was often identified as not ‘good work’ (Shucksmith et al, 2022) with associated challenges in relation to inconsistent and low levels of income. Migrants experience additional challenges

in relation to the stress of adapting to a new country with relationship problems and heavy use of alcohol commonly described in accounts of deaths from suicide (Gorman et al, 2018).

In identifying some of the key risks, researchers have also identified some of the protective factors for migrant workers:

- Peer support groups for migrant workers e.g., the Highland Migrant & Refugee Action (HMRA) project, which provides an online directory of services available to migrants in the Highlands.
- A consistent review of outreach services to identify where needs are not being met.
- Evidence based interventions to ensure peer support programmes are underpinned and driven by the lived experiences of migrants (Schlichthorst et al, 2020)
- Actively encourage and support migrant workers through recognition of qualifications, tackling of stress, assistance with issues of culture shock and other mental health issues via programs such as "The Migrants Matter project" (Gorman et al, 2018; Stephen & Munoz, 2016; Birchwood Highland, 2016)
- Ensure the social inclusion of migrants and refuges in the Scottish Highlands. The promotion of participation in the workforce and in community life as a mechanism for supporting integration and to reduce the risk of mental health issues and substance misuse manifesting (Daly, 2021).

Conclusion

The impact of reality of rural life, as opposed to expectations arising from myths about the rural idyll are examined by Philo et al, (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. Qualitative data from individuals who have experience of crisis and suicide ideation can help to develop a deeper understanding of this complexity, as illustrated in reports of work undertaken by HUG, a network of people living in the Scottish Highlands who

have lived experience of mental ill health. This work helps to connect abstract concepts around risk and protective factors with the voices of those directly experiencing them. Indeed, a presentation about stigma by Graham Morgan from HUG indicates that not only do individuals live with the 'threat and fear' of stigma, but that stigma has been experienced by individuals in the Highlands "when they tried to access help during a crisis" (Morgan, 2019).

This review of literature in relation to protective factors for suicide illustrates a complex and nuanced picture for lone workers in Skye and the West Highlands. Not only is it 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, there are 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.

The key protective factors in the literature, such as increased problem-solving, self-efficacy, resilience and reason for living, for example, can be considered universal and as such will apply to lone workers in Skye and the West Highlands. However, as discussed previously in relation to the concept of rurality, a simplistic approach to suicide protection should be avoided.

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, can provide a context for protective factors to be applied. The application of these protective factors 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.

Despite warnings about overly romanticising the health-enhancing nature of rural living, this is an aspect of life recognised and celebrated by many rural dwellers. Care should be taken, therefore, to avoid dismissing the importance of exposure to beauty and nature, and the sustaining aspects of rural community life for people in Skye and the West Highlands in the process of "challenging the myth" that these aspects are intrinsically protective for all citizens.

Having highlighted the need to avoid simplistic analysis of suicide protection, aspects of lone-working and rurality, it would be inconsistent to conclude by presenting a simple list of recommendations. It is possible, however, to

recommend a simple framework, which could be applied in different contexts, locations, sectors, employment types, and for individuals with different backgrounds and personalities, for example, in different personal circumstances. Klonsky and May's (2015) Three-Step Theory of Suicide could be used as this simple framework. Amongst the many research questions to emerge from the use of the framework, the following sample is illustrative:

1. What can be done to reduce the emotional pain experienced by individuals whose work involves ending the lives of animals and who are becoming habitualised to death? [(a) reduce pain]
2. When land-based workers lose physical capacity to sustain their work, what alternative employment is available and how can their transit be supported? [(b) increase hope]
3. How can local community groups extend their reach to include seasonal workers and adapt to be inclusive? [(c) improve connectedness]

Overall, the complex nature of suicide, the heterogeneous nature of people, the nuances of rural living, and rural and lone employment, make it impossible to offer a universal protective framework. As noted in the beginning of this review a "one size fits all" approach should always be avoided. Instead, future research should endeavour to capture the lived experience of a wide sample of individuals i.e., those who are and are not at risk or who are or are not vulnerable. In doing so we can get somewhat closer to delineating how all the protective mechanisms operate to safeguard individuals from mental illness and suicide.

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