



Loneliness inequalities evidence review

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Summary

- » Policy makers and public services across Wales, the UK and beyond have placed considerable importance on tackling loneliness. To do so effectively, it is vital to better understand inequalities in the experience of loneliness and the causes of these inequalities.
- » This review summarises evidence on inequalities in loneliness differences between social groups in the extent to which individuals experience loneliness and the interpersonal and structural factors that underpin these. The review both contributes to identifying loneliness inequalities and maps out possible mechanisms for their emergence, to point to how they can be addressed by policy changes.
- » There is evidence for inequalities in loneliness across a range of groups. Migrants, members of ethnic and racially minoritised groups, sexual minorities, transgender and gender non-conforming individuals, disabled people, those in poor physical or mental health, carers, individuals with low socio-economic status, and unemployed people, all disproportionately experience loneliness.
- » Some identities work together to increase the odds that people experience loneliness, with particularly strong effects when the identities intersecting are stigmatised by society (e.g., older migrants in poor health). Overall, inequalities in loneliness overlap with a range of other social inequalities, increasing the marginalisation of specific social groups.
- » At the interpersonal level, the evidence shows that everyday social experiences of minoritised groups typically differ from the experiences of the majority or dominant group. Loneliness inequalities are caused by mechanisms of marginalisation, such as interpersonal rejection, bullying, and discrimination.

» In addition to these interpersonal exclusion processes, mere difference from dominant society (e.g., neurodivergence, cultural minority status) can also facilitate loneliness in the absence of direct exclusion, due to clashes in social norms creating challenges in social interactions.

- » Interpersonal exclusion and difference from dominant society can directly increase loneliness, but also do so indirectly through their negative impact on wellbeing. In turn, poor wellbeing reduces social opportunities and social motivation, and increases relational strain, ultimately leading to loneliness.
- » We identified six structural factors that are likely to increase loneliness disparities, due to their disproportionate impact on the groups known to experience most loneliness: community attitudes, public policies, demographic diversity, physical environment, social environment and area deprivation.
- » There is indirect evidence that these interpersonal and structural mechanisms explain loneliness inequalities. Direct evidence is limited, but growing and promising.
- » More research is needed on groups that have received less research attention (e.g., specific disabilities, gender minorities) so that we are better able to prevent and address loneliness in these groups.
- » More research is needed to examine structural factors leading to loneliness inequalities and how these can be changed to improve the social wellbeing of all members of society.
- » Loneliness inequalities cannot be addressed by approaches that focus on individual deficits, which is what many existing interventions do; they need to be addressed by reducing social exclusion and valuing difference.

Introduction

This review summarises existing evidence on inequalities in loneliness, to provide a starting point for discussions with policy makers about how to better prevent and address loneliness.

Defining Ioneliness

Loneliness can be defined as a negative experience resulting from the perception that our social relationships are not as we would want them to be (Perlman & Peplau, 1981). It has been described as having two components: an emotional component (an unpleasant, negative feeling) and a cognitive component (the perception of unwanted disconnection from others) (Badcock et al., 2022; Yang et al., 2022). Loneliness is therefore a subjective experience that occurs most often when we feel that our social relationships (e.g., friendships) are not as fulfilling as we would wish, irrespective of the size of our social network. This is not the same as social isolation (which refers to an objective lack or scarcity of social interactions and infrequent interactions with others; Donovan & Blazer, 2020), in part because voluntary isolation (or solitude) is often appreciated by those that seek it, and because we can experience loneliness even when we have a large social network. Loneliness has also been defined as a feeling of not being understood by others (Jung et al., 1995), a definition that chimes with the reports of many of those who belong to minoritised or marginalised groups:

"

You feel very much alone and you're very much aware that the experiences you're having and the feelings you're having aren't the same as the people around you. And as much as they try and are as supportive as they can be, I don't think that they will ever be able to fully understand.

(Participant in study with non-binary adults, Malli et al. 2022)

The prevalence of loneliness

Loneliness is a common experience across the lifespan (Qualter et al., 2015) and across the world (Barreto et al., 2021; Surkalim et al., 2022). Worldwide, the World Health Organisation (WHO) notes that between 20 and 34% of older people in China, Europe, India, Latin America, and the United States report experiencing loneliness (WHO Demographic Change and Healthy Ageing Team, 2021). Loneliness is also relatively common among young people, with 17.9% of the 14-year-olds included in the PISA data, which in 2022 included participants from 88 countries, reporting loneliness at school (Jefferson et al., 2023). In the UK, data from the Office of National Statistics reveals that 5% of adults felt lonely "often" or "always" (corresponding to roughly 2.6 million adults; Office for National Statistics, 2020). This prevalence did not differ across countries within the UK or compared to estimates obtained before the pandemic.

However a study with 14 year olds found differences between the devolved UK nations, with the highest prevalence of loneliness reported by those living in Wales (36.3%) and the lowest by those living in Northern Ireland (31%) (Yang, Petersen, et al., 2022).

The negative effects of loneliness

Loneliness has a wide range of negative effects on individuals and societies. There is consistent evidence that it is associated with poorer health and increased risk of premature mortality (Elovainio et al., 2017; Hawkley & Cacioppo, 2010; Rico-Uribe et al., 2018). Loneliness is also associated with reports of poor general health, such as headaches, backaches, and colds, and poor sleep among children (R. A. Harris et al., 2013), adolescents (Eccles et al., 2020) and adults (C. Park et al., 2020). Analyses of data emerging from all available studies (i.e., meta-analyses) reveal that the relationship between loneliness and sleep difficulties holds for men and women of all age groups (Griffin et al., 2020; Hom et al., 2020). Further, loneliness increases the risk of coronary heart disease and stroke in adults (Valtorta et al., 2016) and, in older people, it increases physical frailty (Kojima et al., 2022) and the risk of developing dementia (Lazzari & Rabottini, 2021).

Regarding mental health and psychological wellbeing, there is growing evidence that loneliness is associated with the onset of depression and other common mental health problems, such as anxiety (Mann et al., 2017) and, more generally, with poor psychological wellbeing (low self-esteem, poor quality of life, poor life satisfaction) in youth and adults (C. Park et al., 2020; Solmi et al., 2020; Van As et al., 2022). Crucially, poor health and wellbeing can, in turn, exacerbate loneliness, placing those who experience loneliness in a self-fulfilling cycle that is hard to break (Qualter et al., 2015).

Evidence for a wide range of health effects has led to growing calls for loneliness to be regarded as a public health priority (Holt-Lunstad et al., 2017). Loneliness has also been shown to have economic costs to employers (Co-op and the New Economics Foundation, 2017) and to society as a whole (DCMS, 2020; Meisters et al., 2021; Mihalopoulos et al., 2020), via increases in health care costs, reduction in productivity, and increased unemployment (Morrish et al., 2022). Indeed, Ioneliness is also associated with increased use of health services (e.g., more doctor visits and hospital admissions; Kung et al., 2021; Mihalopoulos et al., 2020; Sirois & Owens, 2021). Loneliness also has clear implications for educational outcomes among youth (Eccles et al., 2021; Matthews et al., 2019, 2022), further underlining the ongoing costs for both individuals and society. These costs have persuaded some policy makers that it is crucial to understand why loneliness emerges and to develop strategies to address it (DCMS, 2018; National Academies of Sciences, Engineering, and Medicine (U.S.) et al., 2020; Welsh Government, 2020). However, as we explain in the next section, this has not yet been done with due attention to social inequalities in loneliness and the factors responsible for their emergence. We fill that gap in this review.

Policy makers and public services across Wales, the UK and beyond have placed considerable importance on tackling loneliness. It is vital to better understand inequalities in the experience of loneliness and the causes of these inequalities to tackle it effectively

Loneliness inequalities

Inequalities in Ioneliness refer to differences between social groups in the extent to which individuals experience loneliness. Until recently, research focusing on the causes of loneliness tended to consider mainly individual difference (e.g., personality characteristics) or interpersonal factors (e.g., number of friends) that are likely to lead to loneliness, but there has been increasing awareness that there are systematic differences between social groups in the extent to which people are vulnerable to Ioneliness, or indeed feel Ionely (Buecker et al., 2021a). Inequalities in Ioneliness can be observed across a variety of characteristics including migrant status, sexual orientation, and individual socioeconomic status. Indeed, inequalities in loneliness overlap with a range of other social inequalities, increasing the marginalisation of specific social groups. As with so many other health and social problems, people in marginalised social groups are disproportionately affected.

Although the Covid-19 pandemic was described as a great leveller, people in more disadvantaged groups were significantly more vulnerable to its effects (Abrams & Szefler, 2020; Dennison, 2021). This was also the case for loneliness, which increased for everyone during the pandemic, but to a greater extent for disadvantaged groups (Völker, 2023). Indeed, the pandemic widened the 'loneliness gap'—the difference in loneliness between the least and most lonely people (Patulny & Bower, 2022). This can be at least partly attributed to the obstacles that specific (marginalised) groups of people—such as disabled individuals-experienced to engaging in satisfying social interactions (Patulny & Bower, 2022). Although these effects of the Covid-19 pandemic might wane with time, they highlight inequalities in vulnerability to loneliness.

Moreover, evidence suggests that the factors that increased loneliness remained similar before and during the pandemic (Bu et al., 2020), suggesting that inequalities in loneliness, which predated the pandemic, are likely to remain.

Purpose of this review

This review charts social inequalities in loneliness to begin to address important gaps in knowledge regarding their nature and extent, their possible causes, and how these need to be addressed (a more in-depth discussion of this topic can be found in Barreto et al., in preparation). Specifically, we synthesise evidence addressing three key questions: (1) What is known about inequalities in the experience of loneliness?, (2) What is known about what causes inequalities in experiences of loneliness at the individual and interpersonal levels?, and (3) What is known about what causes inequalities in loneliness at the structural level? In this way, the current review contributes to the identification of loneliness inequalities but also maps out possible mechanisms for their emergence to point out how they can be addressed by policy changes.

Structure of this review

Below we present the existing evidence on loneliness inequalities to answer the three key questions outlined above (see Box 1 for a brief explanation of the methodological principles that guided this review).

Section one summarises evidence about differences in the extent to which loneliness varies between social groups, i.e., loneliness inequalities. The second and third sections focus on the reasons underlying these loneliness inequalities to start pointing towards what can be done to address them.

Section two specifically focuses on the *individual and interpersonal mechanisms* that lead to inequalities in loneliness (e.g., low self-esteem, heightened social vigilance), analysing how different experiences based on group membership (e.g., racebased bullying, homophobia) can affect psychological processes and interpersonal interactions, and ultimately lead to loneliness.

Section three goes beyond the level of social and psychological mechanisms to highlight how societal structures (e.g., discriminatory policies, neighbourhood deprivation) create and perpetuate inequalities that lead to loneliness among marginalised groups.

Answers to these questions are not mutually exclusive. Some social groups that are more likely to experience loneliness, such as individuals with a mental illness, are also reflected in mechanisms that cause loneliness (in this example, because some groups in society disproportionately experience mental health difficulties, which in turn can increase loneliness). In addition, some individual and interpersonal mechanisms can also be understood at the structural level. For instance, poverty can affect both individuals and entire neighbourhoods; both individual- and neighbourhood-level poverty are linked to loneliness, but in different ways. Therefore, while we elaborate on group differences in the first section, individual and interpersonal mechanisms in the second section, and structures in the third section, some factors are mentioned in more than one section, though in different ways.

Box 1

How we conducted this review

This review involved both a careful study of the available evidence and expert judgement of what evidence to highlight. Rather than exhaustively listing every available study on the topic, we have summarised what is known about each of the questions guiding the review and provided illustrative examples of the best available evidence. When selecting what studies to highlight, we considered the quality of the method and analysis and sought to provide evidence on the widest possible range of social groups. This ensured our ability to convey the scope of the problem (i.e., by illustrating the variety of groups to which it applies) and enabled us to attend to specific issues faced by particular groups. In addition to summarising evidence that directly answers these questions, we point to key insights from adjacent areas of research, including qualitative research that indirectly sheds light on possible disparities, as well as on mechanisms and structures that are likely to be responsible for loneliness inequalities.



Section 1: Mapping inequalities in loneliness



Overview

The prevailing theory of loneliness (Cacioppo & Patrick, 2008) suggests that experiencing loneliness, and feeling disconnection from others, is a common consequence of marginalisation from society. Data support this: as will be elaborated on below, loneliness is heightened among members of marginalised groups, including migrants, racial and ethnic minorities, gender and sexual minorities, individuals with mental health difficulties, disabled individuals, those with physical health problems, and those with low individual socio-economic status. In addition, those reporting loneliness often also report social stigmatisation linked to the loneliness experience (Barreto et al., 2022): they are depicted as weak, lacking confidence, and blamed for their Ioneliness (see also Yang, 2019). Such stereotypes associated with loneliness further stigmatise those already marginalised by society, compounding its effects. In what follows, we elaborate some of the key existing evidence for loneliness inequalities (see Box 2 for a note on how loneliness is typically measured in the studies reviewed).

Box 2

A note on how loneliness is measured in the studies reviewed

The evidence summarised in this review has been obtained using a variety of measures to assess loneliness. Research with adults has most often used either the De Jong Gierveld and Van Tilburg scale (De Jong Gierveld & Van Tilburg, 2006) or a version of the UCLA loneliness scale (D. W. Russell, 1996), with the 3-item version of the UCLA scale or the single item measure (which directly asks to what extent people feel lonely) often being the measure of choice in large scale panel studies. Although these measures are often used, they have not always been validated for the specific samples studied. For adolescents, the most often used measure of loneliness is the Children's Loneliness Scale (CLS, Asher et al., 1984); the UCLA Loneliness scale is also often used, but it has not been validated for use with young people (Cole et al., 2021). More standardised and consistent use of measures would be beneficial for comparisons across time and contexts, and this is increasingly done.

Migrants

Migration involves moving away from established relationships and to a society that is often culturally different, which can make it hard to develop new social ties. Qualitative research illustrates this experience well:



I was feeling alienated. My loneliness was a painful and disturbing realisation of being unaccepted and unloved, of being alone and having no other choice...

(Jo, participant in a study with migrants living in London; Christodoulou, 2015)

It is, therefore, not surprising that migrants report more loneliness than individuals who have not migrated (Buecker et al., 2021; Fokkema & Naderi, 2013; Lim et al., 2020; van Bergen et al., 2008). Loneliness among migrants is heightened for those with cultures that are very different from that of the host society (Lim et al., 2020), potentially due to cultural clashes that contribute to social isolation (Hossan, 2012):



The culture is different. People are different. All this makes me feel even more lonely.

(Amira, participant in a study with migrants living in London; Christodoulou, 2015)

Indeed, research suggests that there are differences in the extent to which migrant groups report loneliness, with, for example, older migrants from an Indian background not reporting more loneliness that British born participants, unlike migrants from other origins (Victor et al., 2012).

Loneliness among migrants is heightened for those with cultures that are very different from that of the host society

Migrants (continued)

Sharing the mother tongue with the host society does not necessarily protect migrants from loneliness (Priest et al., 2014), although a study in Canada has found this can sometimes be the case (De Jong Gierveld et al., 2015).

One study demonstrated that migrants (specifically, Mexican American immigrants) were more lonely than individuals of the same cultural background who were born in the host country (Polo & López, 2009), whilst another study did not show differences between the loneliness reported by Indian migrants in the UK and that reported by individuals of the same background who stayed in the home country (Victor et al., 2012).

Experiences in the host society, such as ageism and racism, greatly contribute to loneliness among migrants

Loneliness among migrants is lower when they have spent more time in the host country (Wu & Penning, 2015), immigrated at a younger age (Albert, 2021), or are second rather than first generation migrants (Ajrouch, 2008; Madsen et al., 2016)—all situations that are likely to reduce difference from host society. Experiences in the host society, such as ageism and racism, greatly contribute to loneliness among migrants, as will be elaborated later in this report (Honghui et al., 2023; Kornadt et al., 2021).

Strategies used to cope with loneliness also play a role, with migrants that employ more active coping strategies (like joining a club) reporting less loneliness (Honghui et al., 2023). Similarly, qualitative evidence (Cotterell et al., in press) demonstrates how migrants can keep loneliness at bay by engaging with communities with a shared cultural background:



I don't go to any other activities [...] because of the language barrier.
[...] This group is only Chinese people so I feel less lonely when I speak my language as my English is not good... and I don't want to be embarrassed and it reminds me of my home in China.

(Dorothy, 68 year-old Chinese migrant)

Racial and ethnic minorities

Migrants are often ethnically and racially different from the host society, but not all ethnic and racial minorities can be considered migrants (and vice-versa). Nevertheless, evidence converges to show that racial and ethnic minorities who are not migrants also report more loneliness than those whose ethnicity or race match that dominant in society (Franssen et al., 2020; Lasgaard et al., 2016). For example, one study in the US, using a population-based sample of older people, showed that Hispanics reported more loneliness than White respondents, and a similar tendency was shown for African Americans (Hawkley et al., 2008).

A similar finding was obtained with children ages 9 to 15 years, also in the US (Schinka et al., 2013); more recent data obtained in the UK showed that differences across ethnic groups did not emerge in 10- to 15-year-olds, but emerged later in life (ONS, 2018a). Overall, there is unambiguous evidence that, in the UK, adults from Black and other racial and ethnic minoritised groups report more loneliness than their White counterparts (Hodges et al., 2021; UGov, 2021).

Gender

Differences in the loneliness reported by men and women differ widely across studies, with a recent meta-analysis (Maes et al., 2019) showing very similar levels of loneliness for males and females (i.e., some studies show small differences in favour of men and others in favour of women, and others show no difference at all). Age was the only variable that determined whether or not men and women reported loneliness differently, with men reporting more loneliness than women during childhood, adolescence, and young adulthood, but not later in life. Even so, differences between males and females during those stages in development were very small, suggesting that males and females are more alike than different in their reporting of loneliness throughout life.

Sexual and gender minorities

A recent meta-analysis showed that loneliness is considerably higher among individuals who identify as lesbian, gay, bisexual, or transgender (LGBT) compared to their cisgender heterosexual peers (Gorczynski & Fasoli, 2022). This is also confirmed by data from the National Survey of Wales (Hodges et al., 2021). Such findings support conclusions from qualitative reviews that investigated loneliness amongst sexual minority individuals (Fish & Weis, 2019; Freedman & Nicolle, 2020; Garcia et al., 2020).

Loneliness is considerably higher among individuals who identify as lesbian, gay, bisexual, or transgender (LGBT) compared to their cisgender heterosexual peers

Interestingly, some research suggests that loneliness is particularly prevalent among individuals who do not identity as either clearly homosexual or clearly heterosexual (Doyle & Molix, 2016), and amongst gay men still exploring and defining their sexual identity (Halpin & Allen, 2004), potentially because they might find it harder to find a community where they feel they fit comfortably.

It is important to note that there is little work that explores the experiences of individuals who identify as transgender, or gender non-conforming, as distinct from sexual minorities, e.g., individuals who identify as lesbian, gay, or bisexual (LGB). The available evidence points to a high prevalence of loneliness among transgender people (Anderssen et al., 2020). In addition, for those in this group, it is clear that having access to others with a similar experience helps keep loneliness at bay.



I never had friends until I went there. It was a lifesaver.

(Participant in a study with trans youth; Levitt & Ippolito, 2014)

Mental illness

Consistent evidence shows that loneliness and mental health problems are positively associated, with high levels of loneliness often coexisting with mental health difficulties (Lasgaard et al., 2016). We already mentioned that loneliness can increase mental health difficulties, and decrease psychological wellbeing, but at the same time evidence suggests that mental health difficulties and poor wellbeing also increase loneliness.



When I suffered from anorexia, it fed into so many areas of my life. It was all consuming. One of those areas was loneliness. (...) Going out with friends always involved meals out or drinks and I was too scared.

(Michelle, participant in a study on loneliness and anorexia; Mumford, 2016)

Loneliness is a constant feature in the lives of those with mental health issues. Loneliness can be caused by generalised anxiety, social anxiety, depression, or stress (Dahlberg et al., 2022; Dahlberg & McKee, 2014; Franssen et al., 2020; Heinrich & Gullone, 2006; Lampinen et al., 2022; Lasgaard et al., 2016; Mahon et al., 2006).

Loneliness is a constant feature in the lives of those with mental health issues

Anxiety was also responsible for increased loneliness during Covid-19, especially for individuals with preexisting mental health conditions (O'Connor et al., 2022). A striking finding is that depression in childhood can lead to loneliness later in adolescence (Schinka et al., 2013) and in adulthood (Matthews et al., 2019). Individuals at risk of psychosis also report more loneliness than those who are not at risk (Robustelli et al., 2017), but some studies find the opposite pattern (Alasmawi et al., 2020; Giacco et al., 2016). Although these findings regarding psychosis are inconsistent, they suggest that some mental health disorders might be less associated with loneliness than others (see also Meltzer et al., 2013), but more research is needed to confirm this and examine why it might be the case.

Disability and physical illness

Qualitative work keenly demonstrates that loneliness is a key part of the life stories of disabled individuals:



I was lonesome and different. [...] I did not have many friends.

(Participant in a study of the life stories of people with disabilities; Tarvainen, 2020)

Recent analysis of Welsh data confirms that, across all age groups, those with a long-term illness, a poorer level of general health, or a disability report more loneliness than those without (Hodges et al., 2021). Such findings are also evidenced in England (UGov, 2021) and Ireland (Burholt & Scharf, 2014), with individuals reporting a long-term illness, poorer general health, or a disability also reporting more loneliness than their peers.

Those with a longterm illness, a poorer level of general health, or a disability report more loneliness than those without

Similar evidence has been obtained in other countries (e.g., Canada, Menec et al., 2019; Denmark, Dahlberg et al., 2022) and not only among adults but also among children and adolescents (Maes et al., 2017). In the Welsh data (Hodges et al., 2021), the relationship between poor health and loneliness was stronger for individuals under 65 years of age, which could be attributed to the fact that poor health, poor physical function and disability are less common in younger people, making those who are young and disabled or living with health conditions stand out among similar age peers.

However, other studies have shown that the link between poor health and loneliness was stronger in older than younger individuals (Choi et al., 2018). In addition, poor health is more strongly associated with loneliness among ethnic minorities (compared to the majority ethnic group) and those living in more (compared to less) deprived areas (Hodges et al., 2021), in more collectivist (vs. individualistic) societies (Beller & Wagner, 2020), and among people who are more (compared to less) socially isolated (Beller & Wagner, 2018).

Fewer studies focus on specific disabilities, but there is some evidence for increased loneliness amongst specific types of disabled groups, compared to those who are not disabled.

Disability and physical illness (continued)

A recent systematic review confirms the impact of hearing loss on loneliness, especially among women (Shukla et al., 2020). Research on the effects of blindness or visual impairment also suggests a link to increased loneliness (Hadidi & Al Khateeb, 2013; Rokach et al., 2021; Sorokowska et al., 2022). Loneliness has also been documented as prevalent among individuals with intellectual disabilities (Alexandra et al., 2018; Emerson et al., 2021), whose social network tends to include only an average of 3.1 people, compared to the 125 network members identified in the general population (Hill & Dunbar, 2003). Meta-analyses additionally demonstrate that loneliness is particularly prevalent among individuals with neurodevelopmental disabilities, such as autistic individuals, compared to their neurotypical peers (Hymas et al., 2022; Kwan et al., 2020; Umagami et al., 2022).

This is strikingly illustrated in an analysis of autobiographies of autistic individuals (Causton-Theoharis et al., 2009), which highlights several instances of loneliness, such as this one described by Daniel Tammet:



I was gradually becoming more and more aware of my loneliness and began to long for a friend.
All my classmates had at least one and most had several. I would spend hours at night awake in bed looking up at the ceiling and imagining what it might be like to be friends with somebody.

(Tammet, 2006)



Unemployment and work

Evidence from the UK Office for National Statistics suggests that unemployed individuals report higher levels of loneliness than those who are employed, especially when above 24 years of age (ONS, 2018b). Metaanalytic evidence exploring all previous studies that examined the link between unemployment and loneliness confirms that unemployment is consistently associated with loneliness (Morrish & Medina-Lara, 2021). In this metaanalysis, the authors also showed that the link between unemployment and loneliness peaks at ages 30–34 years and 50-59 years. In addition, higher levels of loneliness immediately followed job loss, and loneliness was also predictive of unemployment, demonstrating a bidirectionality in the relationship (see also Buecker et al., 2021; Franssen et al., 2020; Morrish et al., 2022).

Unemployment is patterned by sociostructural factors, with members of marginalised groups more likely to be unemployed. For example, the race disparity audit carried out by the UK government in 2017 (Cabinet Office, 2017) shows that employment rates among Black individuals and those with a Pakistani or Bangladeshi background were significantly higher than the employment rates of White and Indian residents.

Other social groups that have particularly high unemployment rates are disabled individuals, including autistic and other neurodiverse individuals (Powell, 2021).

Finally, while research has shown that being unemployed has a negative impact on loneliness, employment in particular types of jobs can also increase vulnerability to loneliness. Spending considerable time in work increases loneliness in lone jobs such as truck driving (Shattell et al., 2010) or farming (Hammersley et al., 2021). Loneliness is also higher for individuals employed in workplaces where social interaction is discouraged by management (Aira et al., 2010).

Unemployment is patterned by sociostructural factors, with members of marginalised groups more likely to be unemployed

Individual socio-economic status

Loneliness is negatively associated with individual socio-economic status (SES), determined objectively from information about educational qualifications, occupational positions, and income levels of individuals or households (Buecker et al., 2021; Lasgaard et al., 2016; Lim et al., 2020; ONS, 2018b). It is well documented that financial difficulties are an important risk factor for loneliness (Dahlberg et al., 2022; Franssen et al., 2020; Lasgaard et al., 2016; Madsen et al., 2019; Meltzer et al., 2013; Niedzwiedz et al., 2016; Refaeli & Achdut, 2022; Wu et al., 2022).

In turn, financial difficulties tend to be more prevalent in minority groups such as ethnic or racial minorities (Kenway & Palmer, 2007), individuals with disabilities (Palmer, 2011), and individuals with mental disorders (Poole et al., 2014). Financial difficulties tend to be more prevalent in minority groups such as ethnic or racial minorities, individuals with disabilities, and individuals with mental disorders

Loneliness has also been shown to be associated with subjective social status (SSS), understood as an individual's assessment of their own status in society, among adults (Qualter, Petersen, et al., 2021) and youth (Qualter, Hennessey, et al., 2021).



Intersectional inequalities

The term intersectionality refers to the interaction and interplay between multiple identities marked differentially by dominance and oppression, such as gender and race (Crenshaw, 1989). The effects of simultaneously experienced disadvantages do not simply add up (e.g., Black women are not simply twice as lonely as White women); instead intersecting disadvantages can produce qualitatively different experiences that translate into very specific needs for individuals who have more than one marginalised identity (Grollman, 2014). Therefore, considering intersectional identities can be helpful when developing policy because it helps to specify vulnerabilities and needs that can be addressed (Hankivsky et al., 2014). How different identities combine to increase loneliness is well-illustrated by the following example:



I've come to reflect a bit more on the impact of chronic illness on the experiences of socialising and loneliness (...) in addition to that being LGBT, there are particular ways in which I can't socialise ... I can't possibly participate in an equal and easy way.

(Christou & Bloor, 2021)

When considering multiple social positions simultaneously and how they interact to impact loneliness, it is possible to unveil important patterns. For example, among older migrants, disability, race, gender, and access to employment interact to predict loneliness (Gustafsson et al., 2022; Koehn et al., 2022).

By contrast, being native to a country and having higher educational attainment confers privilege that protects against loneliness (Li & Spini, 2022). Regarding gender identity, while transgender individuals are more at risk of loneliness, discrimination, harassment, and violence compared to cisgender, gay, lesbian, and bisexual individuals, their vulnerability to these stressors also depends on their socioeconomic resources (Bayrakdar & King, 2021). In addition, during and after pregnancy, being young, single, of minority ethnicity, having immigrant status and being socio-economically deprived work together to predict loneliness (Dolberg et al., 2016; Taylor et al., 2021). In turn, the association between ill-health, disability, and loneliness is stronger for ethnic minorities and those living in deprived areas (Hodges et al., 2021).

Age also combines with other social identities to influence loneliness. As already mentioned, even though the effect of gender is small, males tend to report more loneliness than females during childhood and adolescence (Maes et al., 2019) and young adulthood (Barreto et al., 2021; Maes et al., 2019), but not later in life. For the association between unemployment and loneliness, as also already mentioned, the effect is strongest for adults ages 30-34 years and 50-59 years (Morrish & Medina-Lara, 2021). Further, among ethnic minority groups, loneliness has been found to be heightened between 25 and 64 years of age (Hodges et al., 2021).

Mapping inequalities in loneliness Summary

This section summarised evidence for loneliness inequalities across a variety of social groups based on migrant status, ethnicity and race, gender, sexual orientation, gender identity, physical health and disability, mental health, unemployment and work conditions, and socio-economic deprivation.

Although derived with different measures of loneliness and not always drawing from representative samples of the populations examined, the evidence consistently points to increased levels of loneliness among groups that are often marginalised by society. In addition, intersections between identities can determine loneliness, particularly when the identities intersecting are socially stigmatised.

In the next sections we delve into the reasons why these differences might emerge.





Section 2: The role of individual and interpersonal factors



Overview

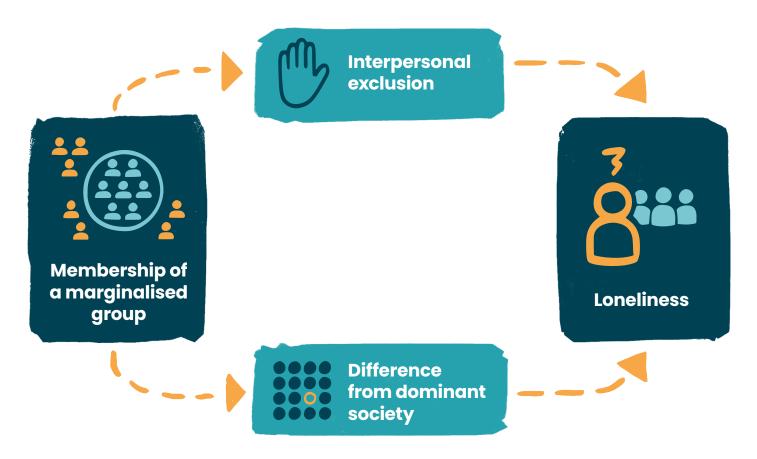
In this section, we begin to examine what might explain inequalities in loneliness, focusing on factors at the individual and interpersonal levels. In a nutshell, the evidence reveals that daily interpersonal experiences for members of marginalised groups tend to differ from those of the majority or dominant group. These experiences can directly increase loneliness, but they also do so indirectly because they have a negative impact on wellbeing; in turn, this can negatively affect social relationships, and ultimately increase loneliness. These links are represented in Figures 1-3. Next, we review evidence for each of the paths involved in this model.

In each subsection, we start by reporting on the paths in the model that have been directly established in the literature. After, we point to additional insights that indirectly support the existence of each path, especially where there is a lack of direct evidence for that specific link.

We consider two key mechanisms that separate members of minoritised groups from mainstream society: interpersonal exclusion and difference (see Figure 1).

Next, we define these terms, explain some of their key manifestations, and show that there are group discrepancies in exclusion and difference that contribute to explaining how belonging to different social groups can be associated with different levels of loneliness.

Interpersonal exclusion and difference explain inequalities in loneliness – Figure 1



Interpersonal exclusion

Social exclusion can be broadly defined as a process that prevents individuals from participating fully in activities that are available to others around them, such as education, employment, health care, and leisure activities (Agulnik, 2002). One can be excluded by specific individuals (e.g., school peers), or by society at large, for example when available services do not meet the needs of a specific group (e.g., when mental health services fail to respect ethnic minorities' cultural values, or when treatment for health issues experienced disproportionally by a specific group of people is underfunded). Interpersonal exclusion—which is the focus of this section—is a form of social exclusion that refers specifically to exclusion that happens between individuals. Exclusion can happen in a variety of contexts such as schools, workplaces, or neighbourhoods. One is excluded, for example, when one is left out of peer groups at school, or if one is ostracised by co-workers. This section specifically addresses mechanisms linked to interpersonal exclusion, while societal exclusion, as a structural process, is addressed in the next section of this review.

A common form of exclusion is "peer exclusion," also labelled as ostracism or social rejection (Williams, 2007) and akin to relational aggression (Cook et al., 2010) and indirect bullying (Olweus, 1993). Peer exclusion consists of leaving peers out of particular activities, as when children are not included in games their peers play during school break times. Exclusion can also take the form of physical or verbal aggression (in person or online), which is more often referred to as peer victimisation, or bullying.

Bullying is understood as intentional harm, repeated over time, perpetrated by one or more individuals, who usually hold a more powerful position than the individual who is bullied (Cook et al., 2010). A third form of exclusion that is important to consider is conveyed in interpersonal interactions through prejudice, discrimination, and stigmatisation (Link & Phelan, 2001). These forms of exclusion are inter-related and frequently go hand in hand, with prejudiced attitudes and discriminatory behaviour often underlying peer exclusion and bullying, and peer exclusion often making children more vulnerable to bullying (Killen & Rutland, 2011).

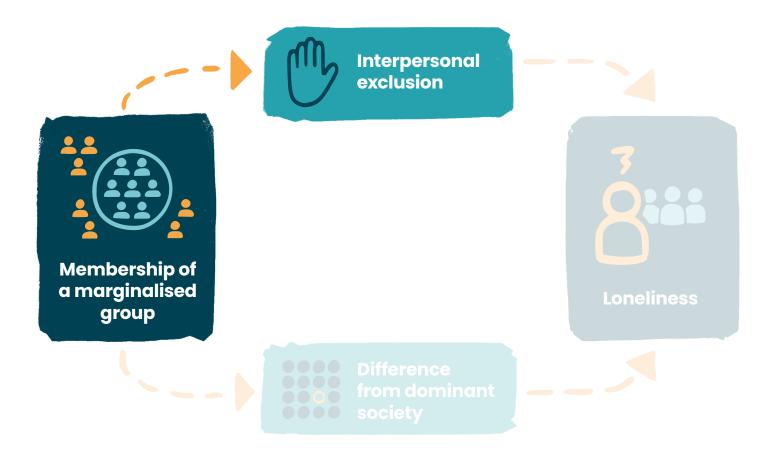


I have a group of friends, I came out to them as a lesbian about a year ago but ever since then, everything's changed if I'm being honest.

(14 year old participant in a study by Verity et al, 2022)

Social exclusion can be broadly defined as a process that prevents individuals from participating fully in activities that are available to others around them, such as education, employment, health care, and leisure activities

Members of minority groups experience interpersonal exclusion more often – Figure 2



Interpersonal exclusion most often affects members of minority groups and is a key mechanism of marginalisation (Agulnik, 2002).

Members of groups that are in a minority position in the school or classroom are less often included and more often excluded by their peers than members of the group in the majority (Killen & Rutland, 2011). For example, young people with serious mental illnesses are regularly excluded from social networks (Gardner et al., 2019). This exclusion may account for evidence showing that, compared to those who are healthy, individuals at high risk of psychosis report fewer close friends, little social support, poor relationship quality with family and friends, and more loneliness (Robustelli et al., 2017).

Autistic children and adolescents (Chamberlain et al., 2007; Locke et al., 2010), deaf children (Batten et al., 2014), and sexual minority adolescents (Hatzenbuehler et al., 2012; Marshall et al., 2019) are also less well connected and occupy lower status positions in school social networks than their peers. LGBT youth often report also being rejected by their parents, which can also explain why they are overrepresented among homeless youth (S. T. Russell & Fish, 2016). For adults, UK Understanding Society data reveals that LGBT individuals over 50 years old have weaker social networks, including family ties, than cisgender and heterosexual adults (Green, 2016), which may be a consequence of interpersonal exclusion.

Regarding victimisation by bullying, a meta-analysis revealed that sexual minority adolescents were 1.7 times more likely to experience assault at school, compared to their heterosexual peers (Friedman et al., 2011). Disabled individuals, including autistic children and young people, as well as those with intellectual disabilities, language impairments, deaf or hard-of-hearing, visual impairments, and other physical disabilities, are more likely to be bullied than their peers (Bouldin et al., 2021; Cappadocia et al., 2012; Pavri, 2015; Rose et al., 2011; Schroeder et al., 2014).



[Other pupils] did not recognise me. They excluded me. ...They called me names, nasty names. ... Bullying left scars on me.

Tarvainen, 2019

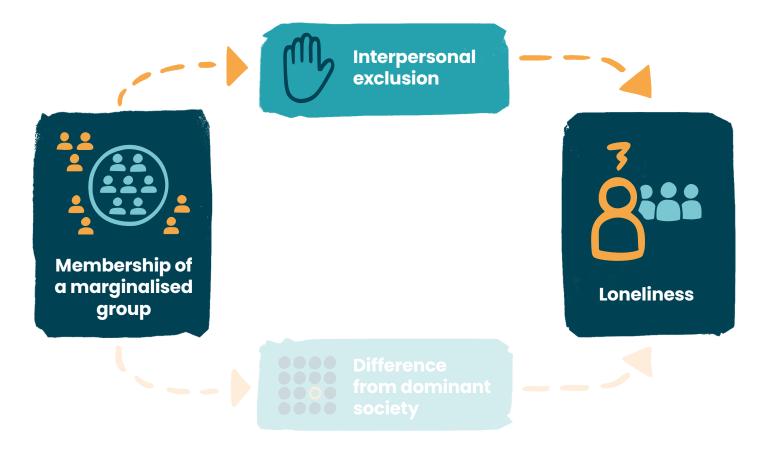
School children from racial or ethnic groups that are a numerical minority in their classroom also report more bullying that they specifically attribute to their ethnicity or race (e.g., racist name calling) than do children from social groups whose racial group is dominant (Graham & Juvonen, 2002; Hoglund & Hosan, 2013; Larochette et al., 2010; Verkuyten & Thijs, 2002). Rates of ethnic or racial bullying can vary across minority groups. For example, Verkuyten and Thijs (2002) reported, in a study conducted in the Netherlands, that children from a Turkish background were the most vulnerable to being bullied, compared to those from a Moroccan, or Surinamese background, and to native Dutch children (see also Larochette et al., 2010).

Plausibly because they experience it more often, children from minoritised racial groups also have stronger expectations of peer exclusion than children from dominant social groups (Cooley et al., 2019). Among adults, workplace bullying more likely targets racial (Goh et al., 2022) and ethnic (Samsudin et al., 2018) minorities than ethnic or racial majority group members, and disabled than non-disabled individuals (Carter et al., 2013).

As to discrimination, members of minority groups are often stigmatised by others in society and, as a result, experience micro-aggressions and blatant discrimination, whereas members of dominant groups are spared these experiences (Link & Phelan, 2001). Sexual harassment is also patterned by group membership, with sexual minorities (M. N. Li et al., 2022) and racially minoritised women (Cassino & Besen-Cassino, 2019) most often targeted. Some studies reveal that belonging to multiple minority groups is associated with increased exposure to discrimination. For example, Hispanic LGB adults report experiencing more discrimination through their lifetime than do non-Hispanic White LGB individuals (Fredriksen-Goldsen et al., 2011).

Regarding victimisation by bullying, a meta-analysis revealed that sexual minority adolescents were 1.7 times more likely to experience assault at school, compared to their heterosexual peers

Interpersonal exclusion helps explain inequalities in loneliness – Figure 3



Although there is little direct evidence that interpersonal exclusion causes inequalities in loneliness between different social groups, there is some direct evidence examining the role of prejudice and discrimination. In addition to this, there is significant indirect evidence to suggest that interpersonal exclusion helps explain why members of marginalised groups disproportionately experience loneliness.

Direct evidence that social group disparities in exclusion explain group differences in loneliness is scarce and stems mainly from examinations of the role of interpersonal experiences with prejudice and discrimination. Specifically, research has shown that self-reported experiences with discrimination explained loneliness disparities between sexual minorities and heterosexual participants living in the US (Doyle & Molix, 2016) and in a global sample (Doyle et al., in preparation).

Finally, loneliness disparities among members of different ethnic minority groups have also been partially explained by group differences in exposure to discrimination (Visser & El Fakiri, 2016a).

Although there is little direct evidence that peer exclusion or bullying explain loneliness, given that being left out is core to the experience of loneliness (D. W. Russell, 1996), it is not surprising that indirect evidence supports this idea.

One study with adult participants revealed that the strongest among 21 predictors of loneliness across the life course was participants' sense that they had been excluded from society (Franssen et al., 2020). For school children, exclusion by peers is associated with loneliness in cultural contexts as different as Korea (Shin, 2007) and Australia (Renshaw & Brown, 1993). The effects of peer exclusion on loneliness can be long lasting (Qualter et al., 2013). For example, adolescents in the Netherlands who perceived themselves as excluded by their peers reported more loneliness at a later age (Vanhalst et al., 2013) and actual exclusion by peers experienced in primary school predicted loneliness later in high school (Kingery et al., 2011).

Regarding bullying, meta-analytic evidence suggests that being a victim of bullying increases loneliness, irrespective of how victimisation is measured (Hawker & Boulton, 2000).

"

I think that a lot of my loneliness comes from that I during my childhood did not experience that I was accepted. (...) There was a lot of bullying.

(Participant in a study of loneliness in Finnish adolescents; Hemberg et al., 2022)

This is also the case specifically for children and young people with disabilities (Pavri, 2015) and for sexual minority youth (Jomar et al., 2021). While one might argue that self-reporting victimisation might be conflated with the measurement of loneliness, similar findings have been found when children did not identify themselves as victim and were, instead, identified as such by classmates (Bellmore et al., 2004; Graham & Juvonen, 2002).

Longitudinal evidence clarifies that it is not being lonely, or isolated, that causes bullying, but it is being bullied that causes loneliness (Jobe-Shields et al., 2011; Kochenderfer & Ladd, 1996). Among adults, isolated employees have been found to be more vulnerable to being bullied (Dussault & Frenette, 2014), but the reverse direction of causality has not received much attention. Adult prisoners who report being bullied also report increased loneliness (Ireland & Qualter, 2008). Victimisation that occurs online (cyberbullying) has similar effects, with cyber victims reporting more loneliness than nonvictims (Olenik-Shemesh et al., 2012; Varghese & Pistole, 2017).

In line with evidence of the long-term effects of childhood victimisation on other outcomes (Widom, 2022), preschool children who, over time, move from nonvictim to victim of bullying become lonelier, whereas those who move from victim to nonvictim do not become less lonely (Kochenderfer-Ladd & Wardrop, 2001). Similarly, adults who retrospectively report having been victimised at school have more relational difficulties and report being lonelier, again demonstrating the persistence of the detrimental effect of bulling on social relationships (Matthews et al., 2019; Schafer et al., 2004; Yang, Petersen, et al., 2022). One study specified that childhood bullying continued to predict loneliness in young adulthood, even in the absence of ongoing victimisation (Matthews et al., 2022).

Although there is direct evidence, summarised above, that experiences with prejudice and discrimination partially explain loneliness disparities, this is restricted to sexual minorities. However, there is indirect evidence for the role of stigma in explaining loneliness disparities, in these and other groups, stemming from studies showing that self-reported experiences with prejudice, discrimination, and internalised stigma, predict increased loneliness.

One study shows that daily experiences with discrimination are the strongest predictor of loneliness out of 32 predictors (Qin et al., under review). Similar evidence has been obtained among sexual and gender minorities in a variety of countries such as Australia, India, and the Netherlands, the United Kingdom, and the United States (Doyle & Molix, 2015b; Fish & Weis, 2019; S. E. Jackson et al., 2019; Jacobs & Kane, 2012; Kuyper & Fokkema, 2010; Mereish & Poteat, 2015). This is well illustrated by a participant in a study of loneliness among people from Black, Asian, and other minority ethnic backgrounds living in the UK:

"

I experienced racism a lot... people posted abusive messages through the door, I felt very unwelcome and that was why I was so lonely and depressed.

(African woman in her 50s; British Red Cross, 2019)

In addition, internalised stigma (or self-stigma) and reported experiences with discrimination have both been associated with increased loneliness among individuals with a mental illness (Alasmawi et al., 2020; Chrostek et al., 2016; Lim et al., 2018), migrants and their descendants (Juang & Alvarez, 2010; Liu et al., 2014; F. Neto, 2002; Priest et al., 2014), racial minorities (Priest et al., 2013, 2017), individuals with chronic physical conditions (Maes et al., 2017), and homeless individuals (Kidd, 2007). One study, using a representative sample of Americans aged 50 and older, additionally revealed that reported discrimination on the grounds of age, weight, physical disability, appearance, or sex, was associated with greater Ioneliness (Sutin et al., 2015).

Informal carers of those who are stigmatised have also been found, in qualitative studies, to mention that stigma by association is a significant barrier to socialisation (in parents of autistic children, Gray, 2002; in informal carers, Vasileiou et al., 2017).

Those whose socially stigmatised identity is concealable can try to escape stigmatisation by hiding their identity. However, this can also make them feel lonely:



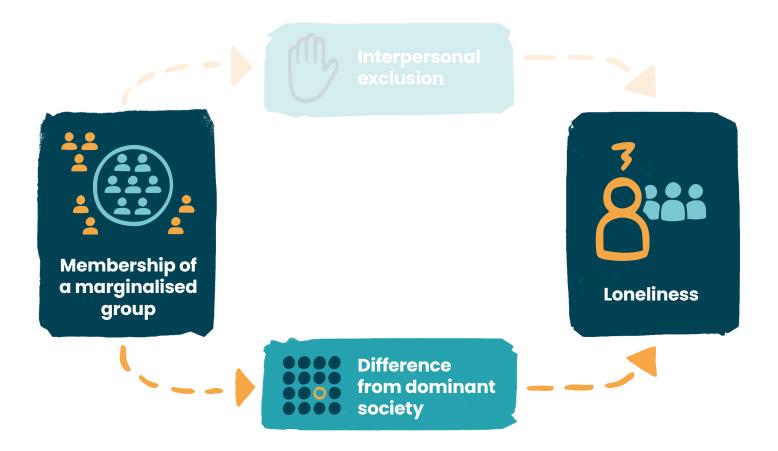
There is still some stigma surrounding identifying as disabled and I think it depends on the individual's journey as to how comfortable they are about disclosing it. I wonder if maybe I would feel ... less lonely if I could just put it out there to my peers that I am disabled physically and mentally, so that it did not feel like I am hiding.

(Disabled participant; Kotera et al., 2021)

Research has also shown that experiences with discrimination are associated with later loneliness, but not the reverse, suggesting that experiences with discrimination cause loneliness (S. E. Jackson et al., 2019; Priest et al., 2017). In addition, a recent study revealed, in a sample of older people, an association between everyday experiences with discrimination and loneliness only among individuals with a low education level, suggesting that education (in itself, or as a proxy for socio-economic status) can enable access to resources that protect from the detrimental effects of discrimination on social relationships (Y. Lee & Bierman, 2019).

Difference from dominant society

Difference from dominant society may also explain loneliness inequalities – Figure 4



Members of marginalised groups often differ from the majority in how they navigate social interactions, leading to social challenges which are relatively independent of direct interpersonal exclusion. There is limited direct evidence that these differences explain inequalities in loneliness. In addition, there is indirect evidence that experiences or perceptions of difference from dominant society contribute to inequalities in loneliness for a range of different groups.

Although perceived difference from mainstream society is often a precursor of exclusion (Killen & Rutland, 2022), minority groups often differ from the majority specifically in how they navigate social interactions, which can lead to social challenges that are relatively independent from direct interpersonal exclusion (Antrobus et al., 2014). A key example is that of cultural minorities, whose social norms might be very different from those of the dominant society, leading to challenges in social interactions between members of these two groups (Cela & Fokkema, 2017; Wright-St Clair & Nayar, 2020). Indeed, there is direct evidence that differences in loneliness between immigrants and US born adolescents from the same ethnic background are partially explained by the extent to which immigrants adopt the cultural norms of the host society and English language difficulties (Ajrouch, 2008; Polo & López, 2009). Qualitative studies also suggest that experiences of loneliness among migrants are often associated with difficulties socialising due to clashing cultural norms (Byrne et al., 2015) and communication difficulties (Koehn et al., 2022; Wright-St Clair & Nayar, 2020):



Feeling isolated and having no-one to connect with (...) that the people you have in your life are not aligned with your values or are not on the same wavelength.

(37 year-old woman reflecting on her experiences as an international student in the UK; Zheng et al, 2023)

The findings—already alluded to—that migrants are less lonely when they have spent more time in the host country (Z. Wu & Penning, 2015), immigrated at a younger age (Albert, 2021), and are second rather than first generation (Ajrouch, 2008; Madsen, Trab Damsgaard, et al., 2016) suggest that social interaction difficulties are reduced as migrants improve their skills in the language that is dominant in the host society, and learn to engage socially in line with local norms. However, it is key that in doing so migrants do not lose touch with their native culture, since involvement with the native culture and the migrant community protects from Ioneliness (Madsen, Trab Damsgaard, et al., 2016; J. Neto et al., 2022).

Another relevant example is that of autistic individuals, who tend to display social behaviours that differ from those of neurotypical people (Crowe & Salt, 2015). Although these behaviours are traditionally described as impairments, it is increasingly recognised that at least some of the interaction difficulties they face are restricted to interactions with neurotypical individuals they do not know well. By contrast, autistic individuals can have social interactions that are highly satisfying, both for them and the people they interact with, when they are interacting with people they know well (Petrina et al., 2017), or with other autistic individuals (S. Y. Kim & Bottema-Beutel, 2019; Sosnowy et al., 2019). Put another way, evidence suggests that neurotypical individuals also exhibit "impairments" when interacting with autistic individuals (Edey et al., 2016; Heasman & Gillespie, 2018), reflecting what has been described as a 'double empathy' problem (Baker, 2011; Milton et al., 2022; Ortega, 2009). This difference in interaction styles can partially explain why loneliness is so high among autistic individuals, although direct evidence for this mechanism is not yet available.

Similar mechanisms could be described involving individuals with hearing impairments, those who are blind, and others whose communication abilities are different from those of the majority in society. For example, research on the social interactions of deaf children has shown that hearing children often do not understand the needs of deaf children, which creates mutual frustration in social interactions (Batten et al., 2014).

Although in all cases the focus has been on ensuring the atypical individual adjusts to the dominant social norm (for example, by learning socially approved ways of interacting, or using hearing aids), loneliness in these individuals can also be reduced if the majority learns alternative ways of being social. Indeed, difference is mainly problematic due to the dominance of narrow beliefs about what it means to be social in any given society, which can be ultimately regarded as a manifestation of prejudice. As such, although a great deal of research underscores the importance of social skills to prevent and combat loneliness (e.g., DiTommaso et al., 2003), it is important to acknowledge that often the issue is not a lack of social skills, but a difference between those one has and those that are valued and mastered by members of dominant social groups.

Finally, perceived difference—and the (experienced) lack of empathic understanding that can come with it—is also likely to be an important factor leading to loneliness among people with specific experiences that they feel set them apart from others around them, for example those who are bereaved, or those with intense informal care duties—which tend to fall on those without the financial means to pay for this care.

This is well illustrated by a 48-yearold female carer of two children with disabilities, in a study of loneliness in informal carers (Vasileiou et al., 2017):



I feel quite numb sometimes, just how to...I don't want to be selfpitying but it can be very lonely, that people don't really understand.

(48 year-old female carer of two children with disabilities; Vasileiou et al., 2017)

Likewise, while individuals with visible illnesses or disabilities are vulnerable to discrimination, those with chronic or long-term illnesses or disabilities can also experience loneliness that is linked to an experienced lack of understanding from others:



Sometimes you are misunderstood. People don't know. They don't understand my cancer...people come up to you and say, 'You don't look sick.'

(Participant in a study on loneliness among cancer patients; Adams et al., 2016)

Loneliness in these individuals can be reduced if the majority learns alternative ways of being social

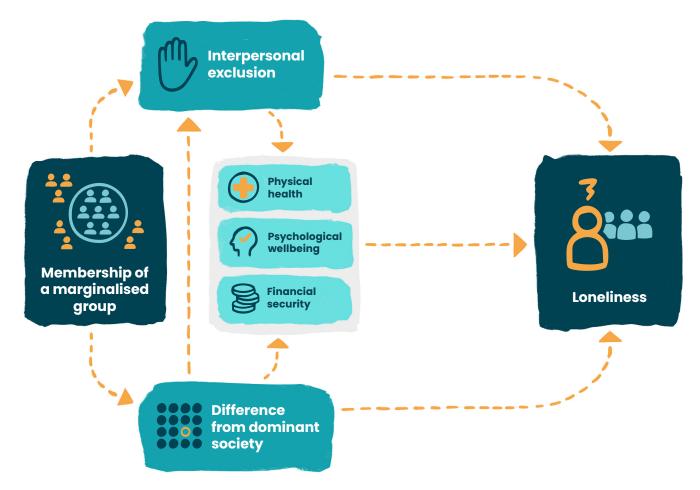
Reduced wellbeing

Interpersonal exclusion and difference from dominant society have negative impacts on wellbeing. In turn, these negative impacts on wellbeing impair social relationships, increasing loneliness.

Very little direct evidence exists that social group disparities in loneliness are explained by differences in wellbeing, but there is ample evidence of differences in wellbeing between social groups and that poor wellbeing is a risk factor for loneliness.

In this section, we summarise some of this evidence, considering physical health, psychological wellbeing, and financial security as key aspects of wellbeing. Indeed, physical health, psychological wellbeing, and financial security are closely interrelated and magnify each other's effects. For example, poor wellbeing can decrease financial security (Blas & Sivasankara Kurup, 2010), which in turn can enhance chronic stress, worsen health (Adler & Newman, 2002), and contribute to explaining mental health disparities (Falah-Hassani et al., 2015; H.-J. Kim & Fredriksen-Goldsen, 2017; Villa et al., 2012). As such, rather than seeing these as separate mechanisms, we might best see them as indicators of overall wellbeing.

Interpersonal exclusion and difference explain inequalities in loneliness, via reduced wellbeing – Figure 5



Reduced wellbeing



We found two studies showing that physical health differences between social groups (in this case, migrants compared to non-migrants) help to explain inequalities in loneliness. In addition to this direct evidence, there is indirect evidence that inequalities in physical health (which are well documented) contribute to loneliness inequalities, given that poor physical health is a major risk factor for loneliness.

There is some direct evidence that physical health differences between social groups help to explain inequalities in loneliness. Two studies evidence this path, one conducted in Germany (Fokkema & Naderi, 2013) and another in Belgium (De Witte & Van Regenmortel, 2021), both associating migrant (vs. non-migrant) status with reduced physical health and, in turn, increased loneliness.

The link between loneliness and physical health is bidirectional, in that loneliness also worsens physical health

Although we could find no other direct evidence for this path, indirect evidence for this link can be observed in studies that report group disparities in health (Marmot et al., 2020) and in evidence that poor physical health is an important risk factor for loneliness (see page 18-19 for loneliness inequalities as a function of physical health status).

The link between physical health and loneliness is also entangled with ideas already mentioned when discussing 'difference,' such as the lack of empathy received by those who suffer but do not necessarily "look ill." Importantly, the link between loneliness and physical health is bidirectional, in that loneliness also worsens physical health (Holt-Lunstad et al., 2010; see also page 7 of this review).

Reduced wellbeing



Psychological wellbeing

There is some direct evidence that group differences in psychological wellbeing help to explain loneliness inequalities. On top of this, there is substantial evidence that:

- · marginalised groups are more likely to experience poor psychological wellbeing;
- they are also more likely to experience different forms of interpersonal exclusion, such as bullying and discrimination, that contribute to poor psychological wellbeing; and
- that poor psychological wellbeing leads to loneliness (and vice versa).

There is some direct evidence that loneliness disparities can be explained partly due to differences between groups in psychological wellbeing. One study reveals that differences in loneliness between ethnic/migrant groups were partially explained by group differences in depression and anxiety (Visser & El Fakiri, 2016a). There is additional indirect evidence in support of this mechanism. For example, there is evidence for mental health disparities across a variety of groups, including ethnic minorities compared to the ethnic majority (Falah-Hassani et al., 2015; van Bergen et al., 2008), sexual minorities compared to heterosexual individuals (Hatzenbuehler, 2009; S. T. Russell & Fish, 2016), and transgender and non-binary individuals relative to cisgender men and women (Anderssen et al., 2020).

Psychological wellbeing can also be affected by physical wellbeing. For example, illness can lead to low self-esteem:



I always feel inferior, I feel like I'm the worst person in the world. (...) I look at myself and think I'm not worthy because of my health condition because I can't get out and about.

(Black African woman in her 60s, living in Wales; British Red Cross, 2019)

Experiences with bullying contribute to mental health disparities. As described above, minority groups are particularly vulnerable to bullying and, in turn, experiences with bullying and discrimination play an important role in mental health (Hatzenbuehler et al., 2012; van Geel et al., 2014; Van Orden et al., 2010).



A lot of my time alone I struggle with dark thoughts about myself ... push myself down ... and demand that I should be better ... I have internalized the [bullies'] voices in myself.

(Male participant in a study on loneliness among Finnish adolescents; Hemberg et al., 2022)

More specifically, being a victim of bullying has been related to depression, generalised anxiety, social anxiety, general personal self-esteem, and social self-esteem (Bellmore et al., 2004; Cappadocia et al., 2012; Cook et al., 2010; Hawker & Boulton, 2000; Hoglund & Hosan, 2013). Bullying can also lead to difficulties sleeping and suicidal ideation (Fleming & Jacobsen, 2009). Victimisation in childhood is associated both with lower self-esteem and with more loneliness in adulthood (Schafer et al., 2004). These detrimental effects of bullying on both mental health and loneliness have also been documented for cybervictimisation (Olenik-Shemesh et al., 2012; Varghese & Pistole, 2017).

Experiences with discrimination are also an important mechanism linking minority group membership to poor mental health (Hatzenbuehler, 2009; Hatzenbuehler et al., 2013; Meyer, 2003). Experiences with discrimination have detrimental effects on self-esteem and psychosocial functioning among sexual (Doyle & Molix, 2014b) and ethnic minorities (Galliher et al., 2011; Wallace et al., 2016). One study demonstrated that assessing repeated exposure to racism revealed larger negative effects on wellbeing than assessing exposure only at one point in time, suggesting research tends to underestimate the impact of racism on wellbeing (Wallace et al., 2016).

In addition to evidence showing that interpersonal exclusion harms psychological wellbeing, it is also clear that poor psychological wellbeing leads to loneliness, across the life course. As already indicated (see page 17 for loneliness disparities as a function of mental health), low self-esteem, anxiety, depression, and stress all increase loneliness.



If I have had a worse period when I have been ... depressed so I have probably had [it] more difficult ... to make contact [with new friends] and have therefore experienced loneliness.

(Finnish adolescent; Hemberg et al., 2022)

Longitudinal research has clarified that there are bi-directional effects between loneliness and depression (Vanhalst et al., 2012), social anxiety (Lim et al., 2016; Maes et al., 2019) and self-esteem (Vanhalst et al., 2013), suggesting a vicious cycle that is hard to break. That is, as with physical health, loneliness is not only caused by poor psychological wellbeing, but it also contributes to worsen wellbeing.

Experiences with discrimination have detrimental effects on self-esteem and psychosocial functioning among sexual and ethnic minorities

Reduced wellbeing



Financial security

A handful of studies show directly that differences in financial security contribute to inequalities in loneliness between groups (in this case, ethnic minority and majority groups in the United States, Germany and the Netherlands). There is also indirect evidence for this path, combining evidence that financial hardship is more prevalent among marginalised groups with evidence that financial hardship is a risk factor for loneliness.

Lack of financial means impairs individuals' ability to finance and participate in social activities, to acquire material goods that enable them to fit in with peers, and to pay for formal or respite care that would liberate time for social activities. In addition, financial difficulties can increase stress and are accompanied by stigmatisation, which can exacerbate that already associated with membership in a minority group. There is direct evidence that financial insecurity can help explain at least differences in loneliness between ethnic minority and majority groups in the United States (Hawkley et al., 2008), the Netherlands (Visser & El Fakiri, 2016a), and Germany (Fokkema & Naderi, 2013). However, one study found that SES did not explain the difference in the loneliness reported by heterosexual and sexual minority men, since in this sample gay and bisexual men had higher SES but reported more loneliness than heterosexual men (Fokkema & Kuyper, 2009).

Indirect evidence for this path stems from the observation that financial hardship is more prevalent in minoritised groups (Blas & Sivasankara Kurup, 2010; Kenway & Palmer, 2007), largely through social exclusion processes, and that financial hardship is a risk factor for loneliness (see page 20–21 for loneliness disparities as a function of unemployment and SES).



The biggest thing is not being able to afford or have the time to go out.

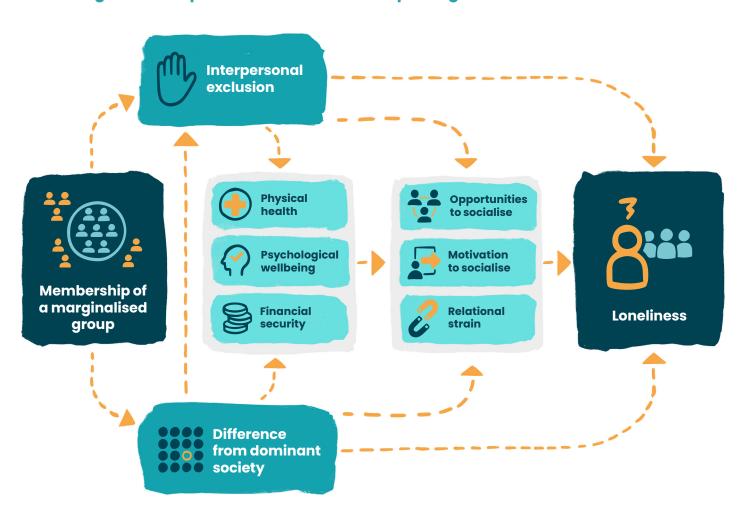
(Participant in a study with informal carers; Carers UK, 2015)

The finding that wealth-related disparities in loneliness disappeared among people who frequently participated in social activities (Niedzwiedz et al., 2016), suggests that loneliness inequalities as a function of poverty are often linked to how it restricts social participation.

Impacts on social relationships

The path between membership of a marginalised group and loneliness proceeds through interpersonal exclusion and reduced wellbeing to influence the quantity and quality of individuals' relationships with family, friends, neighbours, or co-workers, which are consistently shown to be important causes of loneliness (Hawkley et al., 2008; Pinquart & Sorensen, 2001). Here we review evidence showing that group membership increases loneliness by restricting opportunities to socialise, reducing motivation to socialise, and creating relational strain.

Loneliness inequalities are explained by exclusion and difference, through reduced wellbeing and its impact on social relationships – Figure 6



Impacts on social relationships



Opportunities to socialise

While we found no direct evidence that differences in opportunities to socialise contribute to loneliness inequalities, there is indirect evidence for this path. This evidence shows that:

- · opportunities to socialise are key to prevent and reduce loneliness; and
- poor health and financial hardship both of which are more prevalent among marginalised groups – contribute to loneliness by limiting opportunities to socialise in different ways.

Opportunities to socialise are key to prevent and mitigate loneliness because they enable new connections to be made when existing ones are not sufficiently satisfying, as well as the maintenance of existing social ties. However, poor physical or mental health and financial hardship conspire to limit opportunities to socialise.



My arthritis and gout means that you sometimes can't put your shoe on, so you can't go out.

(Male participant in a study by British Red Cross, 2019)



Just the fact that you can't go anywhere you know... it's the lack of independence because of the driving. That causes you to feel sort of lonely in not being able to go anywhere and do stuff you wanted to do really.

(63 year-old male participant in a study on loneliness among stroke survivors; Yang, et al., 2022)

We are not aware of direct evidence that limited opportunities to socialise contribute to loneliness inequalities. However, there is indirect evidence for this path that stems, for example, from studies showing that poor health predicts loneliness by restricting mobility and, thereby, access to social resources and social participation (Burholt & Scharf, 2014; see also page 37 linking physical health with loneliness and page 38–39 linking psychological wellbeing to loneliness). As already discussed, poor health is more common among marginalised groups, so the role of health in socialising might well constitute a path through which loneliness disparities emerge.

Financial insecurity can reduce time to socialise by limiting resources to participate in social activities and the need to take on both more informal care duties and more paid work (de Jong Gierveld & Tesch-Römer, 2012).

Indeed, engaging in social activities is harder for individuals who cannot pay for them, or for transportation to access them, and members of minoritised groups tend to be less well off than members of groups that are dominant in society (see page 40 for the link between poverty and loneliness). Lack of time to socialise was also often mentioned as a cause of loneliness in qualitative studies with new mothers (K. Lee et al., 2019) and informal carers (Vasileiou et al., 2017).

Opportunities to socialise are key to prevent and mitigate loneliness

Impacts on social relationships



Motivation to socialise

While we found no direct evidence that loneliness inequalities can be explained by differences in motivation to socialise, there is evidence that:

- people from marginalised groups tend to have lower motivation to socialise
- motivation to socialise is affected by poor health and financial hardship (both of which are more prevalent among marginalised groups); and
- motivation to socialise can also be affected by experiences of interpersonal exclusion, in part because these affect self-esteem (which influences motivation to socialise).

Although we are not aware of any direct evidence that differences in motivation to socialise explain loneliness inequalities, there is considerable evidence that individuals from marginalised groups tend to have lower motivation to socialise.

Individuals' motivation to socialise is closely linked to some of the aspects of wellbeing mentioned above (poor health and financial difficulties), in part because these can also negatively affect sleep, since this has been shown to reduce social motivation and increase social withdrawal (Ben Simon & Walker, 2018). Poor health can also affect motivation to socialise because of the pain and exhaustion often associated with illness (British Red Cross, 2019). Disabled individuals also refer to the specific issues associated with invisible disabilities, about which people often show little understanding, which can lead disabled individuals to avoid social interaction.



I tend to see my family irregularly now because I get judged, because I have an invisible disability.

(Female participant in a study by the British Red Cross, 2019)

Physical exhaustion is also often mentioned as reducing the motivation to socialise by new mothers (K. Lee et al., 2019), and informal carers (Carers UK, 2015; Vasileiou et al., 2017) and this is particularly likely to be the case for those with lower means to pay for services to cover some of the family's caring needs.



It's hard to enjoy social activities when you are tired and stressed and unable to 'switch off' from caring.

(Participant in a study by Carers UK, 2015)

The stigmatisation associated with some illnesses and with disability can also lead people to avoid social encounters. In one study of loneliness among informal carers, a parent of an autistic child explains why they avoid social activities:



People have often verbally abused my son and me because of his autistic behaviour.

(Carers UK, 2015)

Moreover, stigmatisation can lower self-esteem, which in turn can lead people to avoid social interactions (Anthony et al., 2007).



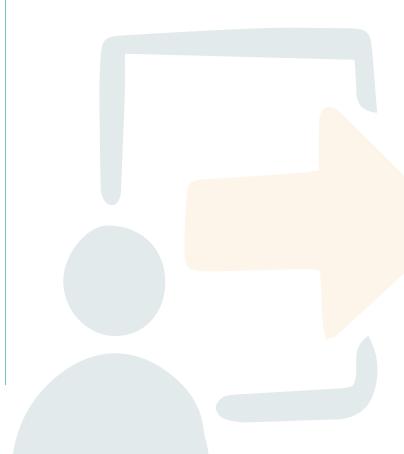
The resulting self-doubt and feelings of undesirability only exacerbates issues, prompting the sufferer to cut themselves off, leading to a deeper malaise and feelings of general wretchedness.

(16 year-old male international student who participated in the BBC Loneliness Experiment; Zheng et al., under review)

As already mentioned, low self-esteem can frame social interactions as risky, and experimental findings do confirm that members of minority groups are particularly sensitive to social threats (Kaiser et al., 2006; Mendoza-Denton et al., 2002) and relatively insensitive to signs of social acceptance (Richman et al., 2016), which is likely to dampen motivation to engage in social interactions. Sensitivity to rejection often develops on the back of prior experiences with rejection (London et al., 2007), so it is not surprising that it is particularly high amongst those who are marginalised.

Indeed, minority group members often expect to be stereotyped or rejected (Rood et al., 2016), and expectations of rejection have been shown to predict avoidance of social interactions in sexual (Elmer et al., 2022; Feinstein, 2020) and ethnic minorities (Froehlich et al., 2022), as well as to predict loneliness at a later point in time (London et al., 2007) (see also Spithoven et al., 2017; Vanhalst et al., 2013).

Poor health can affect motivation to socialise because of the pain and exhaustion often associated with illness



Impacts on social relationships



Relational strain

There is indirect evidence that loneliness inequalities can be explained in part by the higher levels of relational strain experienced by marginalised groups. This evidence shows that:

- High quality relationships are key to preventing and reducing loneliness;
 by contrast, relational strain undermines relationship quality and leads to relationship breakdown
- Relational strain is more prevalent among marginalised groups, and can be predicted by past or current experiences of bullying, prejudice and discrimination, as well as low self-esteem (which itself is also affected by past or current experiences of bullying, prejudice and discrimination)

The quality of one's relationship with others is key to preventing and mitigating loneliness (e.g., Hawkley et al., 2008). For example, high quality relationships are important sources of support, and a recent meta-analysis shows that social support from family, friends, and significant others is strongly and negatively associated with loneliness (X. Zhang & Dong, 2022).

By contrast, relational strain undermines relationship quality and leads to relationship breakdown. Although there is, to our knowledge, no direct evidence that relational strain contributes to explain loneliness disparities, there is indirect evidence for this path.

Writing about the relationship between transgender people and their families, transgender counsellor and writer Gianna Israel explained:



After twenty years of being disowned by my biological family because I am transgender, I find myself keenly aware of just how hard transgender men and women, like others in the GLBT community, must struggle to take their place at the family table and drink from the community well.

(Israel, 2005)

This relational strain is supported by studies focusing on the relational impact of gender identity transition (Lewis et al., 2022). With regard to sexual minorities, sexual minority adolescents report more rejection from parents (Russell & Fish, 2016) and poorer connection with their family in adolescence and young adulthood (Eisenberg & Resnick, 2006; Needham & Austin, 2010) than heterosexual youths.

They also report poorer relational quality with peers (Bos et al., 2008), more worries about losing friends, and actual friendship loss (Diamond & Lucas, 2004). In adults, studies have shown that relational strain tends to be higher among same sex than heterosexual couples (Andersson et al., 2006). One study among older LGBT adults revealed that these had weaker social networks, with family networks being particularly weak, and good friendship and community networks did not sufficiently compensate for this (Green, 2016). Relational strain is also more common among those with a mental illness than among those without. Indeed, young adults at risk of psychosis also report fewer close friends (see also p.22), less perceived social support, poor relationship quality with family and friends and more loneliness than healthy adults (Robustelli et al., 2017). Recent research shows a similar situation characterises undergraduate students with low SES, who report difficulty making friends, a lack of feeling understood by others, and difficulty maintaining social ties, which harms their sense of belonging at university (H. J. Park et al., 2022).

One reason why minorities might experience more relational strain is their vulnerability to victimisation by bullying (see page 30-32), since bullying increases the likelihood of relational problems in later life (Schafer et al., 2004). In addition, as indicated in the previous section, minority group members often expect rejection from others and expectations of rejection can lead people to behave in ways (e.g., self-silencing) that elicit actual rejection (Downey et al., 1998) or increase their feeling of alienation from others (London et al., 2012). Expectations of rejection can underlie decisions to conceal a stigmatised identity, which in turn can be detrimental to relationship quality (Newheiser & Barreto, 2014).

For example, sexual minority men who were concerned about disclosing their sexual minority status due to expected stigma had lower social network density and fewer good friends who were also gay or bisexual (Eschliman et al., 2022).

Another reason why minorities might experience low quality relationships is actual prejudice and discrimination in interpersonal interactions, even from romantic partners (Yampolsky et al., 2022). Experiences with discrimination (from relational partners and from the wider society) have been shown to predict relationship strain with family, friends, and romantic partners among sexual and racial minorities (Doyle & Molix, 2014c, 2015a). Although members of minority groups often benefit from interpersonal relationships with people with whom they share an identity (Debrosse et al., 2022), relationships with close others are not always free from stigma and its effects. For example, weight stigma has been shown to have negative consequences even in close relationships with family members and romantic partners (Puhl & Heuer, 2009; Schmidt et al., 2022). One study also revealed that the husbands' reported experience with racial discrimination negatively predicted the wife's reported marital quality, although this study also found that a strong ethnic identity prevented this negative impact (Trail et al., 2012). Relationship stigma (i.e., the stigma associated with particular relationships such as same-sex or mixed-race relationships) has also been associated with lower relationship satisfaction and greater discrepancy between partners in how they appraised the relationship (Gamarel et al., 2022).

Studies have additionally shed light on why this relationship between discrimination and relational strain emerges. Research shows that the effect of discrimination on romantic relationship quality is partly explained by reductions in self-esteem for both racial and sexual minorities (Doyle & Molix, 2014b). Indeed, low self-esteem has been shown to predict poor relationship quality, and the relationship between self-esteem and relationship quality is reciprocal, signalling the possibility of a selffulfilling cycle of self-negativity and relational strain (Cameron & Granger, 2019; Harris & Orth, 2020). Perceived discrimination increased self-reported stress among racial minorities, which in turn promoted emotional dysregulation, and physiological stress, leading to strain in relationships with family, friends, and romantic partners (Doyle & Molix, 2014c).

Stigma especially hurts relationship quality in relatively new relationships, whereas longer term relationships can be strengthened by encounters with stigma (Doyle & Molix, 2014a), since they tend to be more supportive and resilient to stressors. Other studies show that stigmatization reduces trust in others (M. Zhang et al., 2020) and thwarts a fundamental need to feel one belongs in society (Lattanner & Hatzenbuehler, 2022a), both of which are conducive to loneliness.



The role of individual and interpersonal factors Summary

We reviewed evidence suggesting that, at the individual and interpersonal levels, marginalisation is associated with loneliness through difference and exclusion, which lead to poor wellbeing, in turn decreasing relational quantity and quality. The evidence reviewed here was organised according to a model that has not been tested in its totality. There is some evidence for all paths of the model, but evidence that directly explains group disparities in loneliness is scarce. In addition, most of the evidence stems from outside of the United Kingdom and it therefore does not necessarily apply to the specific context in which intergroup relations play out in this society. Although there are likely to be commonalities between experiences of loneliness across the globe, there are also important cultural, social, and economic differences between countries that make it imperative that evidence is collected where change needs to be implemented. The relevant evidence also stems mainly from studies of racial and sexual minorities, with a lot less known about gender minorities, deaf individuals, blind individuals, those with low socio-economic status, among others. Indeed, the vast majority of the existing evidence on the predictors of loneliness does not stem from studies attending specifically to minority groups, despite the fact that they are particularly vulnerable to this experience.





Section 3: The role of structural factors



Overview

While the prior section focused on interpersonal mechanisms, this section attends to the effects of broader social structures that exclude members of particular social groups. The evidence we summarise demonstrates how a range of social structures contribute to increasing loneliness among marginalised groups.

When considering the importance of structural factors to inequalities in loneliness, it is critical to dissect what exactly constitutes structure. To do so, we have drawn upon theory and research from the field of socioecological psychology (Oishi, 2014; Purdie Greenaway & Turetsky, 2020) and the concept of structural stigma (Doyle & Molix, 2015c; Hatzenbuehler, 2016), which has been defined as "societallevel conditions, cultural norms, and institutional policies that constrain the opportunities, resources, and wellbeing of the stigmatized" (Hatzenbuehler & Link, 2014). From these two broad frameworks, we have identified six key structural factors (shown in Figure 7) that may shape loneliness, particularly for those exposed to social inequalities:

Six structural factors likely to influence loneliness inequalities – Figure 7



Community attitudes

Prejudice Loneliness stigma



Public policy

Discriminatory policy
Diversity policy
Neoliberalism



Demographic diversity

Absolute diversity

Group representation



Physical environment

Transportation infrastrcuture

Housing

Green space



Social environment

Social cohesion

Community belonging



Area deprivation

Crime rates
Socio-economic status

Below we review evidence linking these key factors to loneliness; where no direct evidence for loneliness as an outcome exists, we link it to other related phenomena (e.g., social integration, social isolation).

We should note that these particular factors are of interest for the present review because they are differentially distributed between groups and/ or differentially affect members of marginalised groups. Each of these factors may be present in the neighbourhoods and communities of members of dominant groups as well, but often to a lesser extent than is true for members of marginalised groups. For example, there may be some deprivation in communities that members of dominant groups tend to live in, but, on average, this will be much more likely true of communities in which members of marginalised groups tend to live. Moreover, these factors may also influence loneliness in members of dominant groups, but to a lesser extent than they do so for members of marginalised groups. Therefore, these structural factors constitute an additional burden that can drive or exacerbate the effects of individual-level and interpersonal factors (reviewed in the previous section) on loneliness, patterning inequalities in loneliness by geographical place, workplaces, schools, neighbourhoods, communities, cities, states, nations etc.

A key distinction between this and the previous section of this review is that earlier we focused on individual and interpersonal mechanisms that are tied to subjective experiences, while now we highlight the broader structural environments in which people are embedded irrespective of their own personal experiences (see Box 3).

That is, a racially minoritised person might feel that they are never personally the target of discrimination, but they may nonetheless live in a highly prejudiced neighbourhood in which others shun "people like them." Collectively, these factors can shape loneliness and wellbeing even without conscious awareness on the part of the marginalised.

Box 3 How is structural stigma assessed?

Structural factors impacting on loneliness inequality can be measured with both objective and subjective ratings of various features of the environment (e.g., tallying policies that objectively discriminate against a certain group versus asking members of that group how discriminatory they perceive public policies to be). Much of the literature on structural factors is dominated by objective assessments because these are thought to best capture the "unbiased" nature of these phenomena. Some existing research demonstrates that the effects of objectively measured structural factors on loneliness may be partially driven by subjective assessments of these same factors (e.g., Lattanner & Hatzenbuehler, 2022; Matthews et al., 2019), however others have shown that while the two types of assessments are correlated to some extent, there is not always perfect correspondence between how structures are and how people perceive them to be (Matthews, Odgers, et al., 2019). This may, in part, be because people living in the same community can have very different experiences of structural factors depending on their identity (e.g., whether or not they belong to a minoritised group).

Community attitudes



Community attitudes are those attitudes that are prevalent in the communities where we live, study, or work. Here, we focus specifically on the extent to which prejudicial attitudes are prevalent in the community, as well as on the extent to which the community stigmatises loneliness experiences.

Community attitudes

Prejudice

While individual exposure to prejudice and discrimination has been demonstrated to increase loneliness, as reviewed in the previous section, there is also evidence that broader community-level attitudes, including community-level prejudice, affect members of marginalised groups, even when they are not explicitly being targeted by discrimination or harassment (Hatzenbuehler, 2016). For example, African American people living with HIV in the rural South of the United States, in communities in which stigma against HIV remains virulent, report that negative attitudes of those in the local community lead to a profound sense of loneliness and isolation in daily life (Miles et al., 2011). In addition to explicit prejudice, implicit prejudice (i.e., a negative attitude toward a social group without awareness and/ or intent) at the community level has also been shown to be related to increased loneliness among people living with HIV in the New England region of the United States (Miller et al., 2016).

In fact, community-level prejudice may be most problematic for those who possess concealable stigmatised identities, such as living with HIV or a minority sexual orientation, as this can lead to reductions in connectedness and belonging that are not bolstered by in-group ties (i.e., social ties to others living with HIV or other sexual minorities). Members of visible minority groups, on the other hand, may benefit from easier access to group identification (Leach et al., 2008) and collective socialisation (Brody et al., 2001). This speaks to the importance of creating "identity safe" spaces (Purdie-Vaughns & Walton, 2011) for members of various marginalised groups within communities. For example, "gay bars" have historically provided sexual minorities with a physical space in which to gather and socialise without fear of reproach or victimisation (Croff et al., 2017), potentially reducing social isolation and loneliness (e.g., Li et al., 2015).

Community attitudes

Loneliness stigma

The extent to which the experience of loneliness itself is stigmatised can vary from place to place. Overall, people evaluate individuals experiencing loneliness as less likeable and, as a result, are less likely to want to befriend them (Kerr & Stanley, 2021; Lau & Gruen, 1992), and this stigma may be compounded for men as compared to women (Lau & Gruen, 1992). Such negative public attitudes may further limit opportunities for connection amongst those experiencing loneliness, driving people living in these communities further into secrecy (i.e., hiding their feelings of loneliness) and isolation. Furthermore, because men are more stigmatised when they experience loneliness, this may compound expectations to suppress emotions and lead to greater social withdrawal, particularly among men from lower SES backgrounds as well as Black men (B. A. Jackson, 2018).

Recent evidence also shows that people living in societies (or communities) that value strong interdependence between individuals (i.e., collectivist societies) tend to stigmatise loneliness to a greater extent than societies that prioritise autonomy and self-reliance (i.e., individualist societies) (Barreto et al., 2022).

This is presumably because in collectivist societies being lonely is both atypical and undesirable, so that those who are lonely are seen as deviant. Crucially, collectivism and individualism not only vary between countries, but also between different ethnic groups within a country. Within the United Kingdom, people from ethnic minority groups, such as Black Caribbean people, may experience greater loneliness stigma at least in part as a result of stronger norms around collectivism within their families and communities (e.g., Burholt et al., 2018).

Negative public attitudes [to loneliness] may further limit opportunities for connection amongst those experiencing loneliness



Public policy



By public policy we refer here to policies formally endorsed and often implemented at the institutional level, be it regionally (e.g., nations or states), or at the level of education or work organisations.

Public policy

Discriminatory policy

Discriminatory public policy is especially pernicious for loneliness among members of marginalised groups because it can have both direct and indirect effects on social relationships. Discriminatory public policy can cause stress for members of marginalised groups (Hatzenbuehler, 2016). In recent decades we have seen discriminatory policies that are assessed to limit the human rights of sexual and gender minorities introduced in many countries, including numerous recent laws passed by state legislatures in the USA to restrict transgender rights (ACLU, 2023); also relevant in a UK context are proposed changes to the Equality Act (2010) to enable wider restrictions on transgender people's access to single-sex facilities and services (Lewis, 2023). Policies denying equal rights to minorities, such as prohibitions on same-sex marriage, or curbs on gender-affirming healthcare, can lead to increased levels of loneliness in these social groups. This can happen because such policies directly restrict the social relationships of members of marginalised groups—i.e., not being able to marry (which is a symbol of investment and commitment in a romantic partner) may lead to reduced relationship stability—but such policies can also indirectly affect loneliness.

For example, one study on the same-sex marriage plebiscite in 2017 in Australia found that the proportion of people in an electorate voting "no" (i.e., opposing legalization of same-sex marriage) was related to greater individual-level loneliness among sexual minorities living in that electorate (Perales & Todd, 2018). This natural experiment highlights links between community-level attitudes and support for discriminatory policy within communities.

Furthermore, effects of individual experiences of discrimination on loneliness have been shown to be exacerbated for sexual minorities living in states marked by more discriminatory public policy in the United States (Doyle & Molix, 2015c). A different study showed that discriminatory policies at the country level explained the extent to which LGBTQ+ people trusted their neighbours over and above interpersonal experiences with prejudice (Doyle et al., in preparation). Recently, researchers have demonstrated that the effects of structural stigma and interpersonal discrimination on loneliness among sexual minorities in the United States are partly explained by a feeling that one does not belong in society (Lattanner & Hatzenbuehler, 2022b), suggesting common indirect pathways for these two structural and interpersonal factors.

Public policy

Diversity policy

In order to combat discriminatory behaviour and ensure equity and inclusion, many organisations (including schools and businesses, but also national and local governments) create diversity policies that serve practical and/or symbolic purposes. These policies contribute to a specific "diversity climate" that is the embodiment of the policies and ideologies driving them. More positive diversity climates within organisations have been shown to be associated with increased sense of inclusion and, consequently, decreased intentions to leave the organisation among employees (Brimhall et al., 2014). Furthermore, diversity climate at work may be particularly important to relationships with co-workers for members of marginalised groups, including women in the United Kingdom (e.g., Ciftci et al., 2020). Conversely, poor diversity climates within organisations can threaten belonging and increase loneliness among members of marginalised groups (Wright & Silard, 2021). As will be discussed further in the next section, diversity policies can work by increasing actual demographic diversity (both absolute diversity and group representation) within an organisation, which might have implications for loneliness; diversity policies can also be effective because they convey "identity safety" for members of marginalised groups (Purdie-Vaughns et al., 2008).

Despite these potential positive effects on social outcomes, diversity policies can also have unintended ironic consequences if not implemented in a careful and thoughtful manner (Dover et al., 2020; Kaiser et al., 2013). In addition, these are not always well translated into practice.

For example, policies prohibit discrimination on the basis of disability, but this is not sufficient if not accompanied with guidance to employers on what adjustments might be needed to be truly inclusive of, for example, autistic candidates.

Some scholars and politicians have argued that multicultural ideologies and policy within a country, including the United Kingdom, bolster immigrant people's own ethnic identities, but at the same time hinder wider social integration; however, this idea has been refuted as too narrowly constructing what integration and collective national identity might look like (Hahn et al., 2010; Mason, 2018). In contrast, policies that focus on integration and assimilation can help to create a common identity among members of disparate groups, but risk devaluing and undermining minority group identities (Verkuyten, 2010). Ultimately, it may be that some combination of focus on both diversity as well as integration is most beneficial to social outcomes for members of marginalised groups. For example, a study conducted in schools in Germany showed that equality and inclusion climates (i.e., integration policies) increased mainstream school identity while cultural pluralism climates (i.e., multicultural policies) increased ethnic identity, both of which in turn increased psychological adjustment-including reducing loneliness—via these distinct pathways (Schachner et al., 2016). Beyond general diversity policy and ideology, specific immigration policy has substantial implications for loneliness among immigrants, many of whom face extremely high levels of loneliness (Negi et al., 2021), including in the United Kingdom (Christodoulou, 2015b).

Public policy

Neoliberalism

Broader political ideology at the local or national level, which patterns public policy across a number of domains, may also be tied to loneliness. Central among these, neoliberalism has become the dominant geopolitical ideology in much of the world (Bettache & Chiu, 2019) and has been tied to public acceptance of growing levels of social inequality (Bettache et al., 2020; Goudarzi et al., 2022; Labonté & Stuckler, 2016). This increased acceptance of inequalities stems from the fact that neoliberalist ideology places responsibility for individual outcomes and wellbeing on individual choice, guiding the perception that inequalities are deserved and therefore just. For members of marginalised groups, neoliberal policy may be particularly detrimental to life outcomes in that it masks true structural causes of inequality that actually limit resources and opportunities, instead placing the blame upon the same individuals it unequally disadvantages.

Neoliberalism is also associated with increased competitiveness, which can break the social fabric and increase loneliness. Indeed, in experimental work across the United Kingdom, United States, and Germany, evidence was identified for causal effects of exposure to neoliberal ideology on greater Ioneliness (Becker et al., 2021). Furthermore, the study showed that these effects of neoliberalism on loneliness were driven by increased social disconnection and competition, which supports the idea that neoliberalism not only isolates people, but pits them against one another in contests for ostensibly limited resources and opportunities.

Exposure to neoliberalism has also been shown to increase anomie, or lack of social integration, which may further divide members of diverse social groups (Hartwich & Becker, 2019).

Finally, by placing the blame for disconnection on the individual, neoliberalism limits state level support for structures and resources that might facilitate connection. Relatedly, with its strong focus on individual responsibility, neoliberalism might contribute to the stigma of loneliness. While individualism might protect from this stigma by presenting disconnection as normative (Barreto et al., 2022), political neoliberalism (which is not necessarily associated with cultural individualism) might increase the stigma associated with loneliness by locating loneliness as a problem of the individual, to be solved by individuals, rather than one that needs to be examined and addressed at the community level.

With its strong focus on individual responsibility, neoliberalism might contribute to the stigma of loneliness

Demographic diversity



Demographic diversity refers to the homogeneity or heterogeneity of people within a community. It can be considered both at the absolute level and in terms of how well any particular social group is represented.

Demographic diversity

Absolute diversity

Absolute demographic diversity refers to the likelihood that any two people randomly chosen from a given community or organisation will belong to the same social group. It can be measured and expressed through indices such as the Herfindahl-Hirschman Index, which can range from 0 (indicating complete diversity, where no two individuals are a member of the same social group) to 1 (indicating complete homogeneity, where all individuals are members of the same social group). Some scholars have suggested that increasing demographic diversity within communities may be tied to reduced social cohesion and, consequently, greater isolation and loneliness (Putnam, 2007). While some work has found this to be broadly true (Dinesen et al., 2020; Meer & Tolsma, 2014; Schaeffer, 2013), there are certainly caveats to consider. First, some work has shown that it is not absolute diversity per se, but rather change in absolute diversity that may drive reductions in social cohesion, particularly for those who remain in such neighbourhoods as they are changing (e.g., Laurence & Bentley, 2016). Second, time course becomes important when considering how increasing diversity affects social relationships within communities.

Across analyses of datasets from around the world, potential negative effects of increasing diversity on social cohesion were naturally ameliorated over time, taking on average between four and eight years to dissipate and reveal positive outcomes associated with intergroup contact (Ramos et al., 2019).

Other evidence from the United Kingdom implies that it might actually be low neighbourhood SES that is responsible for the association between diversity and social cohesion (Letki, 2008). In contrast to findings of negative effects of absolute diversity on social cohesion in neighbourhoods and countries, research in schools has sometimes found the opposite. For example, in a study conducted in the United States, greater absolute diversity within schools was tied to less loneliness among White as well as ethnic minority students (Juvonen et al., 2018). Students in more diverse schools also reported feeling less victimised by others and that teachers treated students more equally and fairly on average. These effects were modified by diversity within students' own courses, such that they were strengthened for students on more diverse courses and weakened for those on less diverse courses.

Demographic diversity

Group representation

While absolute diversity might imply something about conditions for members of marginalised groups in particular environments (e.g., that relatively diverse environments will be likely to be accepting of different customs, norms and identities), it does not always equate to adequate representation for members of those same groups (Purdie Greenaway & Turetsky, 2020). The "ethnic density" effect" refers to the fact that members of ethnic minority groups who reside in places with a greater proportion of members of their own ethnic group represented tend to report more positive wellbeing, including more social support (Halpern & Nazroo, 2000). Among adults, loneliness is lower in communities where there is geographic proximity to others of the same ethnic minority background in the United Kingdom (Bécares et al., 2009) as well as other countries, such as the Netherlands and the United States (Tseng et al., 2021; Visser & El Fakiri, 2016b).

Simple increases in diversity do not always equate to positive representation for one's own social groups, once more suggesting the importance of creating environments that are safe for all social identities

Among adolescents, ethnic minority youth experience more loneliness in schools compared to White youth, but the disparity in loneliness is reduced when there are more youth in their class that share the same ethnicity (Madsen, Damsgaard, et al., 2016). While some previous research has, thus, found support for the "ethnic density effect" with regards to loneliness, some other studies have failed to do so (Benner & Wang, 2014).

However, effects of group representation on loneliness may be difficult to untangle from confounding factors to do with absolute diversity (i.e., factors that co-occur with low absolute diversity) and other neighbourhood characteristics. For example, living in small towns can be associated with both low absolute diversity and lack of representation:



I came to Manchester as a student and I think being different here is easier than being different in a small town.

(Kate, 20 year-old in Manchester; Batsleer et al., 2018)

What is certain is that simple increases in diversity do not always equate to positive representation for one's own social groups, once more suggesting the importance of creating environments that are safe for all social identities (Purdie-Vaughns & Walton, 2011).

Physical environment



The term 'physical environment' refers to how the places where we live, study, work, and engage in leisure activities are built and connected to each other.

Physical environment

Transport infrastructure

A key element of the built environment that patterns potential for social interactions is transport infrastructure. Lack of transport options can be very isolating, especially for those who live in areas that have few facilities for social activities:



[The cinema] is on a shopping estate by the motorway and there aren't any buses that go there anymore. So, you can't go to the cinema, you can't go bowling. The largest supermarket is also on that estate that you can't get to without a car. I don't drive any more so that's out.

(Participant in a study on mental health and loneliness; DCMS, 2022)

Public transport can be expensive and time consuming, which can preclude access to social activities:



[It] takes up so much time and costs so much and I also have to plan ahead to make sure I get good deals on train price. So, therefore, I don't always visit or see friends as much as I would like.

(Older female participant; Co-op and British Red Cross, 2016)

Having a car may be related to lower levels of loneliness for some people because it allows autonomy in visiting others and attending social events, but many people rely on public transportation for this type of mobility (Matsuda et al., 2019; van den Berg et al., 2016). A recent examination of the nine-euro rail pass policy in Germany demonstrated that it increased engagement with the rail network, particularly for lower SES people (i.e., those living on less than 1,250 euros per month), allowing for greater social participation and leading to reports of reductions in loneliness (Hille & Gather, 2022). Another quasi-experimental study from the United Kingdom found that use of a free bus programme for older adults was associated with reductions in loneliness, potentially because it increased monthly volunteering as well as contact with children and friends (Reinhard et al., 2018). Research suggests that access to public transportation may be especially vital for the social lives, and thus loneliness, of those with limited mobility, including those with disabilities (Bezyak et al., 2020) and older adults (Lyu & Forsyth, 2022). However, some studies have failed to find an association between access to public transportation, in the form of self-reported distance from public transportation, and loneliness (e.g., Buecker et al., 2021). It may be that operationalizing access as simple proximity to public transportation overlooks other critical aspects of transportation infrastructure, such as affordability, connectivity and usability.

Physical environment

Housing

The built environment is also shaped by housing, which can take many forms and serve (or inhibit) many public social functions. Simple classifications such as rural versus urban do not seem to best capture risk for loneliness (e.g., Buecker et al., 2021; Menec et al., 2019), although some work has found that greater residential density is tied to higher loneliness (e.g., Hammoud et al., 2021; Lai et al., 2021). Crucially, it may be that community planning and design can shape the possibility of loneliness within specific geographic spaces, whether they are relatively remote or not. An important factor in community planning is providing adequate public space in which residents can gather without risk of disruption, such as traffic or crowd interference. As reported by a male participant in his 70s, reflecting on what would help him feel less lonely:



I would like to live in a smaller street where you can have a relationship with neighbours, where children can play outside.

(British Red Cross, 2019)

Such public gathering spaces within communities promote both *strong* and *weak* ties, decreasing social isolation and loneliness (MacIntyre & Hewings, 2022).

Relatedly, co-housing design, which originated in Northern Europe (Sargisson, 2012) and has been more recently adopted with some enthusiasm in the United Kingdom (Wang et al., 2021), has shown promise in decreasing loneliness by increasing opportunities for interaction and thereby social capital within communities (Warner et al., 2020). A central element of co-housing is the inclusion of shared public space for gathering and engaging in joint activities. Although much past research on cohousing has focused on older adults, this approach may also hold promise for members of other marginalised groups as they may also face disparities in social capital as will be reviewed in the following section. The proportion of renters within a community may also pattern loneliness at the structural level, both because renters tend to be lonelier than homeowners on average and because renters may be on precarious contracts which lead to instability within community social networks (Morris & Verdasco, 2021).

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Physical environment

Green space

Public space within communities can take on many different forms, but increasingly research points toward the specific need for green space in order to ensure that urban design is attentive to social welfare. Green space has been shown to benefit mental health and wellbeing (Wendelboe-Nelson et al., 2019) and some research now points toward a protective role in loneliness as well (Astell-Burt et al., 2022). However, an experimental study in the United States found causal evidence for restorative effects of green imagery (relative to urban imagery) on mood, but not loneliness (Neale et al., 2021), suggesting that it may not be passive exposure to, but rather active engagement with, or in, green space that provides social benefits. Importantly, these social benefits of green space rely upon individuals feeling safe enough in these spaces to utilise them regularly and without anxiety (Hong et al., 2018). However, evidence shows that members of marginalised groups, including women in the United Kingdom (Foster, 2004), may be less likely than members of dominant groups to feel safe in such spaces.

Additionally, researchers have suggested that physical environments that are meaningful (and therefore restorative and inviting) for one social group might not be so for another (Morton et al., 2017). For example, while green coastlines are very typical of the UK and therefore inviting for British people, this might be less the case for migrants in the UK who originate from countries with very different landscapes (and possibly temperatures).

Green space has been shown to benefit mental health and wellbeing and some research now points toward a protective role in loneliness as well



Social environment



We use the term 'social environment' to refer to the functioning of communities, such as how cohesive they are and how much they focus on mutual help.

Social environment

Social cohesion

Of all structural factors, social cohesion within a given community may be one of the most direct determinants of loneliness and other social outcomes for residents. Social cohesion is closely related to the concept of social capital, with components that include levels of trust and norms of reciprocity within a community or organisation (Kawachi & Berkman, 2014). Although social cohesion has been defined in many different ways (Fonseca et al., 2019), trust and reciprocity are certainly central. Consistently, research demonstrates that greater trust in others, including neighbours or society more broadly, is associated with less Ioneliness (e.g., Buecker et al., 2021; Lay-Yee et al., 2022; Qualter et al., 2021; Rapolienė & Aartsen, 2022). However, even individuals residing in communities with high degrees of social cohesion may still report loneliness, since cohesion can emerge around a narrow set of common characteristics, and therefore does not guarantee the inclusion of everyone. Notably, neighbourhood cohesion may affect loneliness differently for those higher and lower in personal SES.

Partly, this may be because individuals with lower SES are less likely to participate in local activities (Marmot, 2002). Many researchers argue that the community context expressed by high overall social cohesion and civic participation only benefits people from dominant social groups and those who can exploit local social capital (e.g., by having the resources and ability to join local groups); members of marginalised groups often have limited resources to take up such opportunities or are actively excluded from them (Arneil, 2006; Offer, 2012). However, in contrast to such speculation, a recent study in Hong Kong demonstrated that the inverse association between neighbourhood social cohesion and loneliness was stronger for older people with lower personal SES (Yu et al., 2021). Of course, differences in the importance of personal SES to social cohesion and loneliness could also be influenced by cultural factors, such as individualism and collectivism, that have not been examined in past work.

Social environment

Community belonging

Closely related to social cohesion, the sense that one belongs in one's community also strongly affects loneliness (Marquez et al., 2022). Identification is a central element of social group membership (Leach et al., 2008), and those who identify strongly with their local communities may experience greater belonging and less loneliness. Recent evidence from the United Kingdom shows that community identification decreases loneliness by increasing perceptions of social support from neighbours (McNamara et al., 2021), linking belonging and social cohesion. Identity and belonging may be particularly important for communities going through a process of urban regeneration, with sense of identity more likely to be strengthened when regeneration is initiated via bottomup rather than top-down approaches (Heath et al., 2017). Sense of belonging has also been shown to reduce loneliness for older adults living in both local communities and residential care homes in Spain (Prieto-Flores et al., 2011). In general, members of marginalised groups may benefit from community belonging, although this is often denied to them in both explicit and implicit ways.

Recent evidence from the United Kingdom shows that community identification decreases loneliness by increasing perceptions of social support from neighbours

For example, students from lower SES backgrounds at elite universities in the United States tend to use public spaces less often than their higher SES peers (most likely because they do not feel that these spaces are "for them"), and this difference shapes gaps in belonging (Trawalter et al., 2021). Feeling welcome in a community has to do with a number of different factors, but it is clearly a powerful determinant of social behaviour and, as a result, potentially loneliness.



Area deprivation



Communities also differ in the extent to which they are prosperous or deprived, which is associated with the availability of resources that can facilitate interactions (e.g., safe and welcoming playgrounds).

Area deprivation

Crime rates

People need to feel safe within their local community to reap the potential social benefits of public spaces. Living in communities with higher crime rates does not signal safety and can therefore limit social participation, particularly for those who may feel most physically vulnerable, such as women, older adults, people living with disabilities and those with chronic health conditions (Cossman & Rader, 2011; Iudici et al., 2017), or those who are socially vulnerable, such as ethnic minorities and people with low SES (Rader et al., 2012). For example, older adults living in neighbourhoods in the United States that are higher in crime report experiencing greater social isolation and, as a result, more Ioneliness (Portacolone et al.,

"

I don't think anything can make me feel more connected [to my neighbourhood], as I don't like the sort of people who live here... this is a rough area.

(Young mother in a study conducted in the UK; Co-op and British Red Cross, 2016)

While general crime rates certainly limit social participation unequally for members of marginalised groups, a form of crime that specifically targets members of marginalised groups are hate crimes. Not only do hate crimes negatively impact those who are personally victimised, but research also suggests that they can discourage social participation for others belonging to the same social group (Paterson et al., 2019). For example, sexual minorities living in Canada reported that examples of hate crimes within the community caused them to feel low self-worth and fear, resulting in greater likelihood of concealing their sexual orientation and being more cautious in, or even avoiding altogether, public spaces (Bell & Perry, 2015).

People need to feel safe within their local community to reap the potential social benefits of public spaces

Area deprivation

Socio-economic status (SES)

The structural factor that is perhaps most likely to be responsible for the effects of some, although not all, other structural factors on loneliness is SES. Structural levels of SES (e.g., average SES within a neighbourhood, community, country etc.) shape crime rates, transportation infrastructure, housing, green space, social cohesion and absolute diversity, among others. In fact, some of these other factors are even sometimes used as indicators of neighbourhood socioeconomic status or deprivation (e.g., Allik et al., 2016; Krieger et al., 2003), although average income, education and home ownership tend to be among the most common (e.g., Lovasi et al., 2008). Material deprivation tends to cluster disadvantage and limit social opportunity, especially for members of marginalised groups.

As with personal SES, structural levels of SES may affect loneliness through various mechanisms, such as by reducing social capital, or the extent to which individuals within a community have the resources to rely on each other (Wilkinson & Pickett, 2010). Importantly, there is some evidence that personal and structural SES can have independent effects on loneliness. For example, in a recent Danish study, people living in lower SES neighbourhoods were 1.5 times more likely to report feeling lonely compared to the general population, and this effect persisted after accounting for differences in personal SES (Algren et al., 2020). Other research at the country level suggests an interactive effect, such that lower personal SES is more related to late-life loneliness in societies with greater income inequality and less social welfare (J. Wu et al., 2022).

The role of structural factors Summary

In this section, we have reviewed evidence linking various structural factors to social inequalities in loneliness. Drawing upon theories of socioecological psychology and structural stigma, we categorised structural factors according to six key dimensions: Community attitudes, public policy, demographic diversity, physical environment, social environment and area deprivation. Each of these dimensions affects loneliness in unique and complex ways for members of different marginalised groups, but these factors are consistently (1) unequally distributed between environments in which members of marginalised and dominant groups tend to live and/or (2) specifically target members of marginalised groups with harmful effects.

Discussion and recommendations

This review summarises evidence for social disparities in loneliness, making it clear that loneliness is patterned by social group membership. This suggests that it is not possible to prevent or address loneliness merely with interventions that target individual factors such as biased cognitions or poor social skills. To be effective, interventions need to take into account that loneliness is disproportionally experienced by marginalised groups and need to address the factors responsible for these loneliness disparities.

This review highlights the existence of direct evidence for loneliness disparities, but to effectively address these, loneliness needs to be monitored regularly and in ways that allow appropriate comparisons between marginalised and dominant social groups. This requires regularly collecting relevant data using measures that are both appropriate for the populations assessed and comparable across populations.

We have demonstrated that loneliness disparities emerge in part from mechanisms of marginalisation operating at the interpersonal level, such as peer exclusion, bullying, and discrimination. These have direct effects on loneliness, by pushing people aside and separating them from potential social connections. In addition, interpersonal exclusion increases loneliness through negative effects on wellbeing and social interactions. This evidence of the importance of interpersonal mechanisms further highlights how addressing loneliness requires intervention in the social environments where people live, including schools, workplaces, and neighbourhoods.

Evidence for the interpersonal factors that produce loneliness disparities is ample, but for some mechanisms there is as yet only indirect evidence. Research needs to continue unveiling these interpersonal mechanisms and to do so by attending to the specificities of each particular social group.



This review also lays out structural factors that disproportionally affect loneliness in marginalised social groups, contributing to loneliness disparities. These structures largely overlap with those that lead to other inequalities, such as health inequalities. Importantly, structural factors are both very powerful in their effects, and very amenable to intervention, so they can and must be changed to address loneliness and social inequalities. It must be noted, however, that this is not merely about changing policies and codes of practice, but also about implementing them effectively and monitoring their implementation.

More research needs to be carried out on how structural factors affect loneliness, with attention to specific groups affected within those structures. Research needs to produce more direct evidence for the effects of social structures on loneliness, for which partnerships between researchers and public bodies might be necessary.

Finally, more research is needed on specific social groups, particularly those at the intersection of multiple marginalised identities, such as disabled women, and sexual minorities who are also minoritised on the basis of ethnicity.

Conducting this review highlighted the value of different types of evidence (e.g., qualitative, quantitative) and the crucial importance of engagement with affected communities to understand specific lived experiences and obstacles to social connection. Research and practice need to listen more closely and openly to those with lived experience and develop mechanisms that can facilitate effective consultation.



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