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**Who is Lonely in the EU's Loneliest Nation?:
A Post-pandemic Examination of Loneliness among the Adult Population in
Ireland, and Associations with Mental Health**

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Abstract: This paper investigates the prevalence and correlates of loneliness in Ireland, a nation identified as having the highest reported rate of loneliness within the European Union in a 2022 survey. Utilising nationally representative cross-sectional data from the *Healthy Ireland* initiative, collected in 2021 and 2023, this research explores the demographic and psychosocial factors associated with loneliness and its impact on mental health and quality of life. In 2021, 5.9% of respondents reported experiencing acute loneliness (*often/always*), with 20.2% reporting experiencing loneliness *at least some of the time*. In 2023, these figures reduced to 3.9% and 13.7% respectively. Regression analysis revealed strong associations between frequent loneliness and being female, having few social supports, as well as probable mental health issues. There was also evidence that younger people (15-29 years), those with a disability, and those not born in Ireland had greater likelihoods of experiencing loneliness. Being married, in good health, and participating in social groups was protective against loneliness. Acute experiences of loneliness were estimated to increase the probability of mental health issues by 35.6 percentage points. Both frequent and occasional loneliness were negatively associated with quality of life, with the association being stronger for acute loneliness. These findings highlight the significant impact of loneliness on mental wellbeing and quality of life, emphasising the need for targeted interventions and policy development to strengthen social connections and promote mental health across all age groups in Ireland.

Keywords: Loneliness; Mental Health; Quality of Life; Social Connectedness; Ireland

JELs: I18, I31

1. INTRODUCTION

Ireland's designation as the EU's loneliest nation in the first Europe-wide survey on loneliness (Berlingieri et al., 2023), with 20% of the population reporting feeling lonely *most or all of the time* in the previous four weeks (compared to the European average of 13%), has brought the once-taboo subject of loneliness to the forefront of public and policy discourse. Loneliness is defined as the discrepancy between desired and actual social relationships (Peplau and Perlman, 1982). This is closely related to the concept of social connection, which encompasses the multifaceted ways individuals interact and relate, including both the quantity and quality of time spent together, as well as perceptions of support (Mahoney et al., 2024).

While the recent survey results have brought renewed focus to this issue, the challenge of loneliness in Ireland is not a new phenomenon. As early as 1954, Geary, (1954, p. 13) identified the “serious problem of loneliness as it affects elderly persons”, while Ward (1968) reported that one-in-ten housewives resettled in Dublin corporation housing estates experienced loneliness. Since these early observations, a substantial body of international research has established a strong link between loneliness and a lack of social connectedness and a range of adverse

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outcomes. These include poorer wellbeing, mental and physical health (Park et al., 2020), increased healthcare utilisation and associated economic costs (Christiansen et al., 2023), elevated mortality risk (Luo et al., 2012) - famously comparable to smoking up to 15 cigarettes daily (Holt-Lunstad et al., 2015), and diminished employee performance (Ozcelik and Barsade, 2018). Furthermore, these individual experiences have broader societal implications, potentially eroding social cohesion and community trust (d'Hombres et al., 2021; Hertz, 2020), and negatively impacting economic growth (Burlina and Rodríguez-Pose, 2023; Hertz, 2020).

The confluence of this growing evidence base, and the acute experience of loneliness and social isolation during the COVID-19 pandemic has spurred greater policy attention, with loneliness now widely recognised as a critical public health issue (Ernst et al., 2022). The UK government's pioneering establishment of a Minister for Loneliness in 2018 marked a significant turning point, and since the pandemic, interest in addressing loneliness and social isolation has surged. International bodies such as the European Commission (Schnepf et al., 2024) and the World Health Organization (2023), through its Global Commission on Social Connection, have emphasised the importance of these issues. This growing recognition is further reflected in the elevation of social connection, previously a standalone domain within the OECD Well-being Framework, to a key area of policy and research focus (Kudrna et al., 2024; Mahoney et al., 2024), and underscored by the US Surgeon General's (2023a) influential advisory report on the crucial role of social connectedness.

In Ireland, the Loneliness Taskforce's (2018) report brought to the fore the country's 'loneliness epidemic,' advocating for enhanced governmental recognition and intervention. Since then, loneliness and social connectedness have gained increasing traction within key policy frameworks, evidenced by their inclusion in documents such as the *Roadmap for Social Inclusion* (Department for Social Protection, 2023), the Health Service Executive's *Mental Health Promotion Plan* (Doherty et al., 2022), the *Healthy Ireland* strategy (Department of Health, 2013), and *Connecting for Life: Ireland's National Strategy to Reduce Suicide* (Department of Health, 2015). However, this growing acknowledgement contrasts sharply with the current Programme for Government (Government of Ireland, 2025), which notably lacks substantive policy initiatives specifically targeting loneliness and social connectedness, despite a recent Seanad Éireann debate in May 2024 that underscored the issue's critical importance¹. This discrepancy raises concerns about a potential disconnect between parliamentary discourse, policy rhetoric, and concrete executive action.

Additionally, Irish research on this important subject has primarily focused on narrow sub-groups, such as older people, and to a lesser extent, adolescents (De Roiste, 2000; Drennan et al., 2008; Ward et al., 2019), leaving a significant gap in understanding loneliness across the general adult population. International evidence suggests that loneliness affects all age groups, with mid-life loneliness representing a serious and often overlooked problem (Infurna et al., 2024), with implications for work performance, relationships (Nowland et al., 2021), and even suicide (McClelland et al., 2020). The Loneliness Taskforce (2018) recommended that Irish research identify groups, demographics, and locations particularly vulnerable to loneliness, and further explore its effects on mental well-being. In response to this call, and to address existing knowledge gaps, this paper investigates the following research questions:

- 1) Who is reporting loneliness in contemporary Ireland?
- 2) Is reporting loneliness associated with mental health and quality of life?

By addressing these questions, this research aims to provide crucial evidence with significant social, economic, and policy implications. Understanding the factors contributing to loneliness and a lack of social connection is essential for developing targeted and effective interventions to mitigate the negative effects on individuals, communities, and the wider society and economy.

2. LITERATURE

To contextualise this study, this review first provides an overview of the international literature on factors associated with loneliness. It then explores the documented impact of loneliness on mental health. Finally, it synthesises the available evidence on this topic within the Irish context.

2.1. Factors associated with loneliness

Loneliness, a complex and pervasive experience, is influenced by a confluence of individual, social, economic, and technological factors (Barjaková et al., 2023; Cohen-Mansfield et al., 2016; Mahon et al., 2006; Pinquart and Sörensen, 2001; Solmi et al., 2020). Studies have identified several correlates of loneliness, including age (following a U-shaped pattern)(Graham et al., 2024; Solmi et al., 2020), female sex (McQuaid et al., 2021;

¹ <https://www.oireachtas.ie/en/debates/debate/seanad/2024-05-01/12/>

Pinquart and Sörensen, 2001), poor quality social contacts (Cohen-Mansfield et al., 2016; Dahlberg et al., 2022), lower socioeconomic status (McQuaid et al., 2021), and chronic medical conditions (Dahlberg et al., 2022; Theeke, 2009). However, the core of the issue often lies in the quantity and quality of social relationships, with marital status, living arrangements, and personal social network characteristics consistently emerging as strong predictors (Barjaková et al., 2023; Hussain et al., 2023). These findings align with social identity theory, which posits that loneliness arises from the loss or absence of important social group memberships and identities. The painful emotional experience of loneliness, therefore, stems not only from the lack or loss of group-based social connections, but also from the consequent loss of access to key psychological resources (Haslam et al., 2019; Hayes et al., 2022).

Demographic and socioeconomic factors play a significant role. Berlingieri et al. (2023) found elevated loneliness rates among younger individuals, those with low income and education, rural residents, individuals with immigrant parents, and those identifying as LGBT. Conversely, countries with higher socioeconomic indicators (income, education, employment, social participation etc.) tend to exhibit lower loneliness levels (Berlingieri et al., 2023; Surkalim et al., 2022). Rurality and population density can also contribute to feelings of isolation (Abshire et al., 2022; Berlingieri et al., 2023).

Existing research has predominantly focused on specific perceived vulnerable groups, namely older adults (Cohen-Mansfield et al., 2016; Dahlberg et al., 2022; Hussain et al., 2023; Pinquart and Sörensen, 2001) and, more recently, younger people (Alvarez et al., 2024; Lee et al., 2020; Mccrory et al., 2022; Siva, 2020). However, loneliness can affect any age group, where loneliness across the age profile of the population, including mid-life loneliness has been identified as a concerning, yet often overlooked, issue (Infurna et al., 2024). Middle-aged adults face unique stressors, navigating changing relationships with aging parents (e.g., increased caregiving responsibilities) and adult children (e.g., who may be facing employment or housing instability) (Fingerman, 2017; Infurna et al., 2020). Financial pressures, exacerbated by labour market volatility and shrinking social safety nets, further contribute to vulnerability (Infurna et al., 2020). Murthy (2017) also suggests that evolving work models, such as telecommuting and gig economy arrangements (Wang et al., 2022), while offering flexibility, can also inadvertently reduce opportunities for in-person interaction and relationship building. Even traditional office environments may not foster genuine connection, with employees often isolated despite physical proximity (Murthy, 2017).

The impact of digital interaction on loneliness is also a subject of ongoing debate (Mohan and Lyons, 2024; OECD, 2021; US Surgeon General, 2023b). While excessive internet and social media use has been linked to decreased life satisfaction and well-being, particularly among youth facing social pressures (Curran and Hill, 2019; Mccrory et al., 2022; Pittman and Reich, 2016), the relationship is complex. Paradoxically, some research suggests adolescent loneliness has decreased alongside increased smartphone access (Twenge et al., 2021), although causality remains unclear. Other studies indicate only minor, inconsistent changes in global well-being and mental health trends, challenging a direct link between internet or mobile broadband adoption and negative psychological outcomes (Vuorre and Przybylski, 2024). Furthermore, digital connections can complement traditional friendships and mitigate loneliness for marginalised groups, such as those with disabilities or those identifying as LGBT (Duplaga and Szulc, 2019; Mohan, 2023).

2.2. Does loneliness impact on mental health?

Loneliness, a subjective experience of social disconnection, has a demonstrably significant impact on mental health. A foundational study by Cacioppo et al. (2006) among middle-aged and older adults in the US established a robust link between loneliness and depression, evident in both cross-sectional and longitudinal data. Critically, this research highlighted a reciprocal relationship: loneliness exacerbates depressive symptoms, and conversely, depressive symptoms intensify feelings of loneliness, creating a detrimental cycle that undermines well-being. This finding has been corroborated by a substantial body of international research. Meta-analyses and systematic reviews consistently identify loneliness as a significant contributing factor to depression (Crewdson, 2016; Erzen and Çikrikci, 2018; Lambert Van As et al., 2022; Park et al., 2020; Wang et al., 2018). Furthermore, a growing body of evidence connects loneliness and a lack of social connectedness to diminished well-being and poorer mental and physical health outcomes (Park et al., 2020).

Loneliness is connected to poorer mental health through a complex interplay of psychological, biological, and socioeconomic mechanisms (reviewed by Hawkey and Cacioppo, 2010). Psychologically, loneliness can foster heightened sensitivity to social threats, leading to negative interpretations of social cues and an anticipation of rejection and exclusion, potentially manifesting as a self-fulfilling prophecy. This can be accompanied by disrupted emotional regulation (Patrichi et al., 2025), making it harder to manage stress and negative emotions, and contributing to feelings of hopelessness and helplessness. The experience of feeling unwanted or unloved can

further engender shame, guilt, and social withdrawal. Biologically, loneliness is associated with triggered inflammatory responses (Smith et al., 2020), increasing the risk of cardiovascular disease and mental health disorders. Dysregulation of the hypothalamic-pituitary-adrenal axis results in elevated cortisol levels (Haucke et al., 2022), which can negatively impact mental and physical health. Alterations in brain structure and function, particularly in social cognition and emotion regulation areas, contribute to heightened sensitivity to social threats and difficulties in social connection. Furthermore, poor sleep quality and disruption are linked to loneliness and poorer mental health conditions (Hom et al., 2020). Socioeconomically, poverty and a lack of resources can limit opportunities for social connection and support networks (Eckhard, 2018). Experiences of social inequality and discrimination, particularly among minority groups, can lead to feelings of marginalisation and exclusion (Priest et al., 2017). Changing social structures, including increased urbanisation and a decline in traditional community networks (Bantry-White et al., 2018), alongside the rise of technology, potentially reducing face-to-face interactions (Leonard et al., 2024), also contribute to social isolation and its subsequent impact on mental well-being.

The COVID-19 pandemic provided a stark illustration of the impact of loneliness on mental health. Numerous studies conducted during this period revealed that individuals experiencing loneliness were particularly vulnerable to psychological distress (Liu et al., 2021; Okruszek et al., 2020; Palgi et al., 2020). This vulnerability was further compounded by socioeconomic factors, with low income exacerbating the negative mental health effects of loneliness (Liu et al., 2021).

A recent study by Hong et al. (2023) further clarifies the distinct yet intertwined roles of loneliness and social isolation. While both were associated with various physical health outcomes and health behaviours, social isolation emerged as a stronger predictor of mortality risk, whereas loneliness proved to be a more potent predictor of psychological outcomes. This research underscores the importance of differentiating between loneliness (the subjective feeling of being alone) and social isolation (the objective lack of social contact). Hong et al. (2023) concluded that loneliness and social isolation exert independent effects on health and well-being, thus requiring distinct interventions to effectively improve population health. In summary, the evidence overwhelmingly supports the conclusion that loneliness has a substantial and detrimental impact on mental health, often contributing to depression and other forms of psychological distress. Moreover, the interplay between loneliness, social isolation, and socioeconomic factors necessitates a nuanced approach to understanding and addressing this complex issue.

2.3 Extant Irish based evidence on loneliness, social connection and mental health

Research on loneliness, social connection, and mental health in Ireland has predominantly focused on older adults. Early work by Treacy et al. (2004) using a mixed-methods approach, found generally low loneliness scores among older Irish adults, with romantic loneliness, particularly among older women, being most prevalent. Social loneliness, linked to poor health, limited transport, and rented housing, was the next highest, while family loneliness was associated with being single or widowed, though having more children was protective. Despite the fact that the majority (73%) of older people had strong local support networks, nearly 10% experienced social isolation and higher loneliness. Drennan et al. (2008), also using the same survey data, identified age, poor health, rural living, and infrequent contact with friends as predictors of social loneliness, while family loneliness was predicted by rural living, being male, low income, widowhood, lack of transport, infrequent family contact, and caring responsibilities.

The advent of The Irish Longitudinal Study on Ageing (TILDA) marked a significant advancement in research on loneliness and social isolation among older adults in Ireland, generating a substantial body of in-depth research. Barrett and Mosca (2013) found that older Irish return migrants experienced greater social isolation than those who never migrated, although loneliness levels did not differ significantly. Kamiya et al. (2014) linked adverse childhood experiences, such as poverty and parental substance abuse, to increased loneliness in older age, along with being never married or widowed and poor later-life health. Ward et al. (2019) reported that approximately one-third of adults aged 50+ experienced emotional loneliness at least some of the time, with 7% often feeling lonely, particularly those with lower education, living alone, or in poor health. Loneliness was more strongly linked to depression than social isolation, and affected over 75% of the loneliest individuals with clinically significant depressive symptoms. Santini et al. (2016) identified loneliness as a key link between poor relationships/social isolation and depression/anxiety, with men appearing more affected. Using longitudinal TILDA data, Domènech-Abella et al. (2019), found a reciprocal relationship between loneliness and depression/anxiety, with loneliness being the stronger driver.

Ward et al. (2021), linked TILDA and mortality data and found that both loneliness and isolation, particularly when experienced together, were associated with increased mortality risk, especially from cardiovascular causes. Ward et al. (2023) showed that while loneliness and depression were stable before the COVID-19 pandemic, both

dramatically increased during its early months. In a cross-country study, Mc Hugh Power et al. (2019), found that older Irish adults were less likely to feel lonely despite social isolation compared to Swedish counterparts, but social asymmetry (the difference between isolation and loneliness) affected brain function in both groups.

An alternative quantitative study of older people employed data from Ireland's *Healthy and Positive Ageing Initiative* (Gibney et al., 2019), uncovered higher loneliness scores among older adults in poorer health, those living alone, materially deprived, or never/formerly married. Loneliness was also linked to difficulties with transport and accessing social services, barriers to community activities, lower social engagement, and perceived ageism. The association between loneliness and depression was bi-directional. Additionally, Bailey et al. (2021) documented that 57% of older patients attending ambulatory medical services during the pandemic reported experiencing loneliness, with one-in-eight reporting feeling lonely 'very often'.

In a qualitative study of a befriending scheme in Donegal, McHugh Power et al. (2017) reported that social connection was crucial for avoiding and alleviating loneliness, which was attributed to the absence of others, inactivity/boredom, and perceived threats to personal safety. Social support and activity were viewed as potential antidotes. Other qualitative research on older people by Bantry-White et al. (2018) suggested that loneliness and isolation in rural Ireland reflected community struggles and anxieties about modernisation.

Another group which has received scholarly attention in terms of loneliness in the Irish context are adolescents and young people. Adolescence has been described as "the loneliest developmental period" (Hartog, 1981) when physical and psychological changes tend to isolate individuals from each other and raise questions relating to core issues of self-hood, such as, identity. Construed by many as a period of inner turmoil and alienation, it is a time, some argue, when loneliness is highly prevalent and particularly intense as compared to other age periods (Woodward and Frank, 1988). De Roiste's (2000) cross-sectional survey of Irish secondary school students examined peer-related loneliness (related to peer attachment or rejection) and parent-related loneliness (resulting from changing family roles and emotional distancing). The study indicated a significant decrease in both types of loneliness across adolescence, suggesting that early adolescence is a more vulnerable period for experiencing loneliness.

The *Growing Up in Ireland* study, a longitudinal cohort similar to TILDA, documented loneliness among 20-year-olds (O'Mahony et al., 2021). This report, focusing on mental health, found 22% of participants exhibited high depressive symptoms, with sleep and loneliness key contributing factors. Nearly 30% of the 20-year-olds reported experiencing restless sleep and/or loneliness *at least some of the time* (1-2 days) in the week prior to the interview, with an additional 20% reporting these issues more frequently (3-4 days or more).

In a study of acute adolescent psychiatry referrals from presentations to a hospital Emergency Department in Ireland during the COVID-19 period, McLoughlin et al. (2023) reported that the restrictions exacerbated isolation and loneliness among vulnerable Irish teens and limited opportunities for building peer support.

Qualitative research has explored the experiences and causes of loneliness among young Irish adults (18-25) (Kirwan et al., 2023). Participants viewed loneliness as common, universal, and potentially a consequence of normal development, even describing it as unavoidable. They also acknowledged the influence of societal and self-imposed expectations on young adult development, social lives, and experiences of loneliness.

Turning to other groups in the population, qualitative research by Cronin (2003) documented a sense of loneliness felt by first-time mothers in Ireland, while Byrne's (2018) Irish survey of mothers of young children, recruited via social media, found that single, stay-at-home mothers reported much higher levels of both stress and loneliness. In addition, a qualitative Irish study of those identifying as LGBT by Ceatha *et al.* (2019) emphasised the importance of LGBT communities for social connectedness, mental health and social wellbeing, also noting the potential of social prescribing to promote community involvement and combat social isolation.

The finding that Ireland ranked as the loneliest EU nation in 2022 (Berlingieri et al., 2023), with 20% of respondents reporting feeling lonely most or all of the time, prompted a policy document to explore the contributing factors (McHugh Power and Swader, 2025). The authors posit that Ireland's demographics, specifically its young age profile and rural character, coupled with both inward and outward migration patterns, may explain the high prevalence of loneliness. They propose that these factors are potentially compounded by a deficit in social infrastructure, including accessible social spaces and opportunities for recreational, cultural, and sporting activities that foster social connection, thereby creating an environment conducive to loneliness. It is worth noting, however, that another study, conducted by Meta and Gallup (2023) using global survey data from the same year (2022), reported a lower loneliness prevalence for Ireland, with 13% of Irish respondents identifying as "very" or "fairly" lonely.

In terms of the state of mental health in the nation, Hyland *et al.* (2022) examined a range of indicators of mental health using a nationally representative cross-sectional survey. Their analysis revealed a relatively high prevalence of mental health disorders compared to international estimates, with 42.5% of the sample meeting the criteria for a disorder and 11.1% reporting a lifetime history of attempted suicide. The study identified younger age, shift work, and exposure to trauma as independent risk factors for mental health disorders, while university attendance was associated with a lower likelihood of having a disorder. On the other hand, the most recent 2024 *Healthy Ireland* survey indicates that the proportion of the population experiencing probable mental health problems (12%), remains elevated compared to the 2016 baseline (10%). A notable increase in probable mental health problems was observed during the pandemic in 2021 (15%). While this figure decreased by three percentage points in 2023 (12%), it has since plateaued (Government of Ireland, 2024).

In summary, this review has explored the multifaceted nature of loneliness, documenting contributing factors, its impact on mental health, and the specific evidence base within the Irish context. Internationally, loneliness is understood as a complex experience shaped by individual, social, economic, and technological factors, with the quality and quantity of social relationships being particularly salient. Gender, age, socioeconomic status and rurality also play significant roles. The influence of digital interaction on loneliness remains a subject of debate. Critically, loneliness has a demonstrably detrimental impact on mental health, contributing to depression and other psychological distress, often in a reciprocal relationship. The COVID-19 pandemic highlighted this vulnerability, particularly amongst those with lower socioeconomic status. Irish research on loneliness has largely focused on older adults, revealing the prevalence of both loneliness and social isolation, and exploring their association with factors such as age, health, marital status, and rural living. Studies using TILDA data have been particularly informative, highlighting the complex interplay between loneliness, social isolation, and mental health outcomes. Research on loneliness among Irish adolescents and young adults suggests a peak during early adolescence, with contributing factors including sleep, life transitions and societal expectations. Studies have also examined loneliness in other groups, such as new mothers and the LGBT community. Recent national data reveals a complex picture, with varying estimates of loneliness prevalence and a fluctuating but persistently elevated rate of probable mental health problems. These findings underscore the need for a nuanced understanding of loneliness in Ireland, considering the interplay of diverse contributing factors and their impact on different population groups.

3. METHODS

This research uses two waves (2021 and 2023) of *Healthy Ireland*, a nationally representative telephone survey of the Irish population aged 15 and over (Government of Ireland, 2023, 2021). The survey was commissioned by the Department of Health, with ethical approval from the Royal College of Physicians of Ireland, and survey fieldwork was conducted by Ipsos MRBI. The 2021 wave marked the first time the survey, which began in 2015, included questions on loneliness and social connectedness, and these questions feature every two waves. The 2021 data was collected in the period October 2020 to March 2021, a period marked by significant COVID-restrictions, recruiting 7,454 participants (achieving a 51% response rate). The 2023 wave (ninth in the series), collected data from October 2022 to April 2023, comprising 7,411 interviews (50% participation). The data is available to other researchers upon application to the Irish Social Science Data Archive. To address potential bias from differential response rates (e.g., lower participation among young men), survey weights were applied. The weights were based on Central Statistics Office information including the 2022 Census, and adjusted for age by gender, education, work status, and region, ensuring the sample best reflects the population.

The first research question of this study is concerned with levels of loneliness in Ireland. *Healthy Ireland* participants were asked to report ‘Have you often felt lonely in the previous four weeks?’ with five possible responses, ‘Often or always’, ‘Some of the time’, ‘Occasionally’, ‘Hardly ever’ or ‘Never’. Two binary outcome variables were created from the responses to this question. The first, ‘Often/always lonely’ was set equal to one where ‘Often or always’ lonely is reported, zero otherwise. This indicates those who experience the most acute levels of loneliness. A second, ‘Sometimes/often/always lonely’ is set equal to one where either ‘Often or always’ or ‘Some of the time’ lonely is reported, zero otherwise. This second outcome therefore represents a broader categorisation of loneliness.

Since the two loneliness variables represent binary dependent variables, logistic regression models are employed to examine the factors which predict the likelihood of reporting the two loneliness outcomes. In the first model specification loneliness is modelled as a function a variety of demographic factors (gender, age category, country of birth, region of residence), socio-economic characteristics (marital status, having responsibility for children under 18 years, educational attainment, employment status), as well as health and disability. Two other control variables which indicate the level of social participation and social connectedness a person has are also afforded by the survey and included in the model, namely participation in social groups and whether the respondent reports they have few people to count on (two or less people) if they have serious personal problems. A second

specification of the model also includes ‘probable mental health problem’ as a control variable to investigate its potential association with loneliness, acknowledging that other scholars in this field have reported a bi-directional association between loneliness and mental health (Gibney et al., 2019; Ward et al., 2023). A year dummy was also included to capture the association between the COVID-19 pandemic period, as represented by the year 2021, and the outcomes of interest.

The second research question concerned with whether experiences of loneliness affect mental health outcomes, examines whether the *Healthy Ireland* participant was likely to have a mental health problem as indicated by their Mental-Health Inventory-5 score, as well as their reported quality of life. The Mental Health Index (MHI-5) is used to measure negative states of mental health (Ware Jr., 1999). Respondents were asked five questions relating to their negative mental health over the past four weeks. The questions included the extent to which they felt “downhearted and blue”, “worn-out”, “tired”, “so down in the dumps that nothing could cheer you up” and been a “very nervous person”. The scores were used to calculate an MHI-5 score for each respondent, where scores can range from 0-100. Lower scores indicate greater levels of psychological distress, and a cut-off point of a MHI-5 score of 56 or lower is used to indicate a probable mental health problem (Government of Ireland, 2023)².

Healthy Ireland respondents were asked ‘How would you rate your quality of life at the moment?’ with five responses from ‘Very good’ (1), to ‘Very poor’ (5). The outcome variable ‘Good quality of life’ was created, where the respondent selected ‘Very good’ or ‘Good’ as their response, this was set equal to one, zero otherwise.

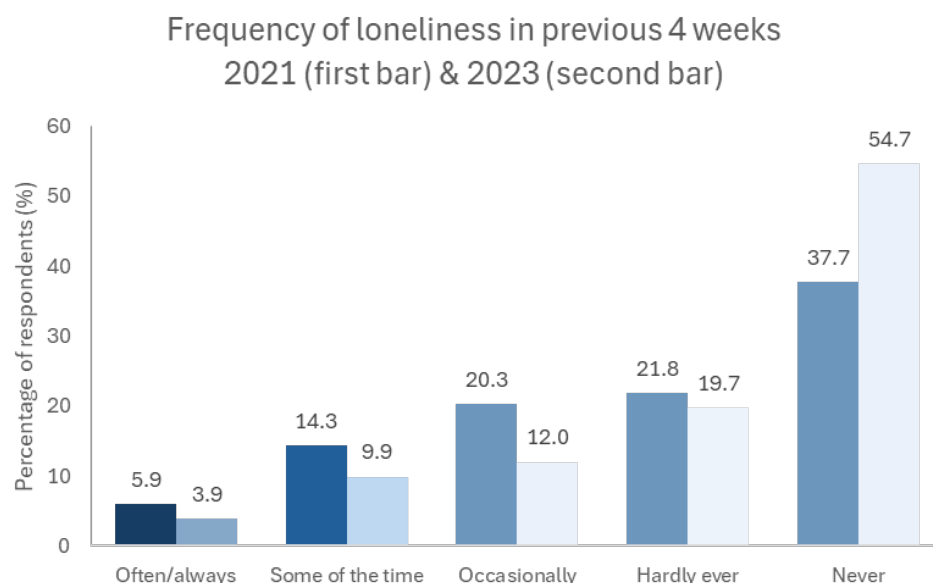
The binary dependent variables of ‘Probable mental health problem’ and ‘Good quality of life’ are also modelled as logistic regression models, where the exposure variables of interest concerning frequency of loneliness, i.e., reporting ‘Often/always lonely’, or reporting ‘Sometimes/often/always lonely’. These were modelled separately as models (1) and (2) respectively. The covariates in the previous models examining the predictors of loneliness were also included as control variables.

The analytical sample included 14,620 individuals with complete data for all variables employed in the models (98.4% of the original collected sample). All analyses were conducted using STATA 17, with statistical significance determined at the $p < 0.05$ level. Pairwise correlation between the variables investigated in this study are presented in the Appendix Table A-1. Separate analysis of the models using the individual year data for 2021 and 2023 are presented in the Appendix Tables A-2 to A-6.

4. RESULTS

Figure 1 presents the distribution of reported loneliness frequency over the past four weeks in 2021 and 2023. In 2021, 20.2% of respondents reported experiencing loneliness at least some of the time, with 5.9% reporting ‘often or always’ and 14.3% reporting ‘some of the time’. By 2023, this overall proportion decreased to 13.7%, with 3.9% reporting ‘often or always’ and 9.9% reporting ‘some of the time’.

Figure 1: Prevalence of experiencing loneliness



² Also see McHugh and Walsh (2024) for a recent application of MHI-5 in the Irish context.

Figure 2 illustrates a shift in mental health and well-being between 2021 and 2023. In 2021, 15% (approximately one-in-six) of the sample indicated a probable mental health problem. By 2023, this figure decreased to 12.5% (one-in-eight), suggesting an improvement in mental health. This positive trend is reinforced by the increase in reported good quality of life, from 74.4% in 2021 to 85.8% in 2023.

Figure 2: Prevalence of probable mental health problem and reported good quality of life

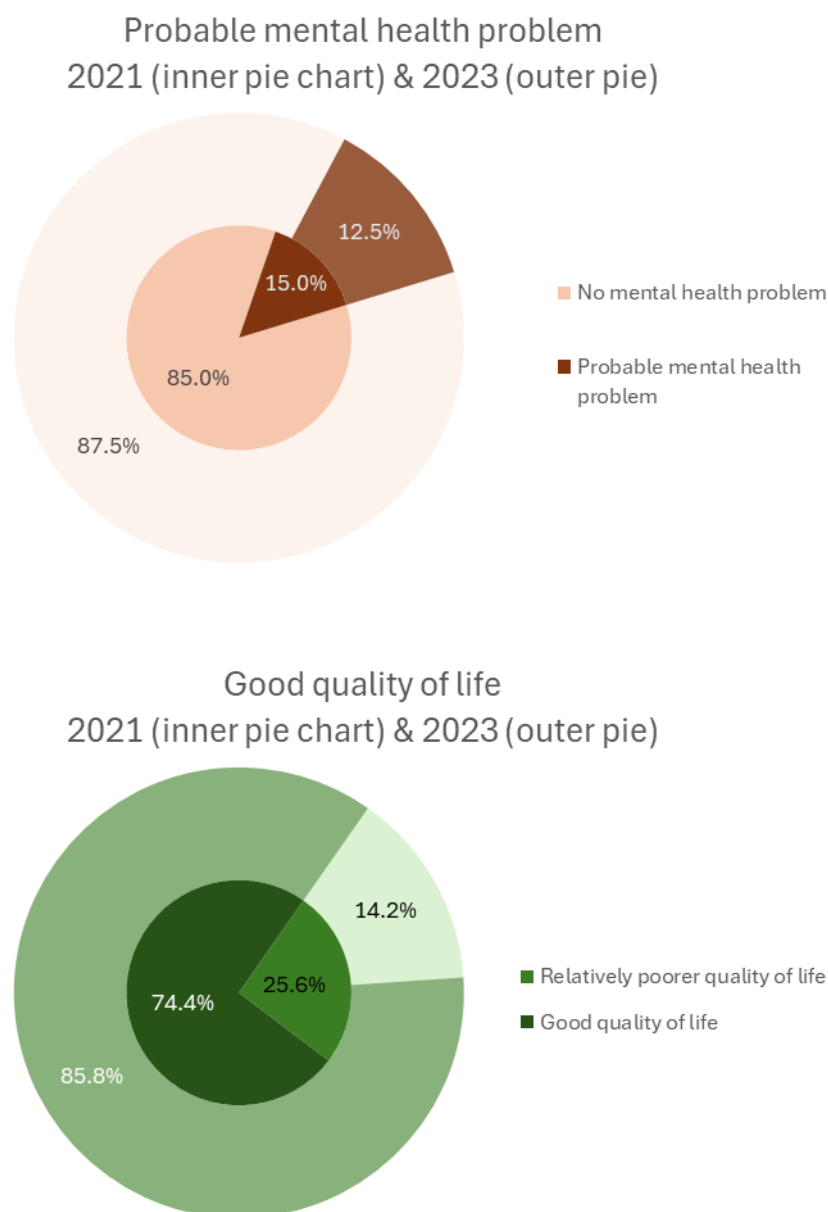


Table 1 summarises the weighted sample characteristics for 2021 and 2023, providing an overall average. The sample exhibited a balanced gender distribution. Regarding key demographics: While most respondents reported good health, 21.2% indicated a disability. Nationality data revealed that 18.6% were born outside Ireland, and the most common marital status was married, with 28.5% responsible for children under 18. Employment varied, with 55.5% employed, 21.9% engaged in home duties or other non-employed states, 11.5% retired, and 5.6% each for students and the unemployed. Educationally, 31.1% held a university degree. Geographically, 28.6% lived in the Dublin region. In terms of social engagement, 31.4% participated in clubs or groups, while 26.0% reported limited social support.

Table 1: Characteristics of the sample

Variables (%)	2021	2023	2021-23
Often/Always lonely	5.9	3.9	4.9
Sometimes/often/always lonely	20.2	13.7	16.9
Probable mental health problem	15.0	12.5	13.7
Good quality of life	74.4	85.8	80.1
Female			50.9
<i>Age category</i>			
15-29 years			22.9
30-49			36.0
50-64			23.1
65+			18.0
Good health			82.0
Disability			21.2
Not born in Ireland			18.6
<i>Marital status</i>			
Single			40.8
Married/civil partnership			51.0
Separated/divorced			5.5
Widowed			2.7
Has children under 18			28.5
<i>Employment status</i>			
Working			55.5
Unemployed			5.6
Student			5.6
Retired			11.5
Looking after the home/other			21.9
<i>Region</i>			
Dublin			28.6
Rest of Leinster			27.0
Munster			26.9
Connaught/Ulster			17.6
<i>Highest educational achievement</i>			
Less than Leaving Certificate			28.6
Leaving Certificate			40.3
Degree (graduate/postgraduate)			31.1
Participate in social groups			31.4
Few people to count on (none/one or two)			26.0
N	7306	7314	14620

Table 2 presents the factors estimated to predict both acute and broader experiences of loneliness. Gender, age, health, relationships, employment, social connections, and mental health are all estimated to play significant roles. Specifically, being female was greater associated with reports of loneliness, while older age groups (50-64 years, and 65+ years) were significantly less likely to report experiencing loneliness than young people (15-29 years). Good health was estimated to be protective against loneliness, while disability increased the risk. Marriage decreased loneliness compared to being single. Unemployment and home duties were linked to greater loneliness, though this link was less strong when accounting for mental health. Social group participation reduced loneliness, while having few social supports strongly increased it. Critically, probable mental health issues were a strong predictor of both acute and at least sometimes experiencing loneliness, increasing the likelihood by 14.0 percentage points and 27.3 percentage points, respectively. Finally, the 2021 indicator, reflecting the impact of the COVID-19 restrictions, showed a 2.3 percentage point greater association with acute loneliness, and a 6.4 percentage point higher association with broader reports of loneliness.

An interaction of the 2021 COVID-19 year with the female dummy, shows that compared to males, females had a significantly higher probability of reporting more severe loneliness during this period, as depicted in the margin's plots in Figure 3. The stronger effect of the COVID experience on loneliness for young people is also evident.

Table 2: Estimation results on loneliness, 2021 & 2023

	Often/always lonely		Sometimes/often/always lonely	
	(1)	(2)	(1)	(2)
Female	0.021*** (0.005)	0.012** (0.005)	0.049*** (0.008)	0.033*** (0.008)
<i>Age category (Ref: 15-29 years)</i>				
30-49	-0.013 (0.008)	-0.010 (0.007)	-0.025+ (0.014)	-0.021+ (0.013)
50-64	-0.026** (0.009)	-0.014+ (0.008)	-0.061*** (0.015)	-0.042** (0.014)
65+	-0.029** (0.010)	-0.008 (0.010)	-0.088*** (0.017)	-0.053** (0.016)
Good health	-0.047*** (0.010)	-0.022*** (0.008)	-0.010*** (0.014)	-0.059*** (0.013)
Disability	0.030*** (0.008)	0.012+ (0.007)	0.076*** (0.012)	0.043*** (0.012)
Not born in Ireland	0.019** (0.006)	0.021** (0.006)	0.017+ (0.010)	0.021* (0.010)
<i>Marital status (Ref: single)</i>				
Married/civil partnership	-0.028*** (0.006)	-0.020*** (0.006)	-0.061*** (0.011)	-0.046*** (0.010)
Separated/divorced	0.006 (0.013)	0.007 (0.011)	0.024 (0.020)	0.025 (0.019)
Widowed	0.041+ (0.024)	0.054* (0.024)	0.076* (0.032)	0.093** (0.029)
Has children under 18	0.001 (0.007)	0.002 (0.006)	-0.016 (0.011)	-0.014 (0.010)
<i>Employment status (Ref: working)</i>				
Unemployed	0.028* (0.010)	0.014 (0.009)	0.047** (0.017)	0.022* (0.015)
Student	0.021 (0.014)	0.017 (0.013)	0.010 (0.022)	0.002 (0.021)
Retired	-0.009 (0.006)	-0.013+ (0.007)	0.005 (0.015)	0.0002 (0.014)
Looking after the home/other	0.019** (0.007)	0.011+ (0.006)	0.031** (0.012)	0.018 (0.011)
<i>Region (Ref: Dublin)</i>				
Rest of Leinster	-0.0002 (0.006)	0.004 (0.006)	-0.016 (0.010)	-0.007 (0.010)
Munster	0.005 (0.006)	0.008 (0.006)	-0.016 (0.010)	-0.009 (0.010)
Connaught/Ulster	0.0004 (0.007)	0.005 (0.007)	-0.0009 (0.012)	0.010 (0.012)
<i>Highest educational achievement (Ref: less than Leaving Certificate)</i>				
Leaving Certificate	-0.006 (0.007)	-0.004 (0.006)	-0.016 (0.011)	-0.012 (0.011)
Degree (graduate/postgraduate)	-0.002 (0.007)	0.004 (0.007)	-0.028* (0.012)	-0.017 (0.011)
Participate in social groups	-0.014** (0.005)	-0.008* (0.005)	-0.030*** (0.009)	-0.019* (0.008)
Few people to count on	0.037*** (0.006)	0.020*** (0.005)	0.094*** (0.010)	0.066*** (0.009)
Probable mental health problem	/	0.140*** (0.011)	/	0.273*** (0.016)
Year dummy – 2021 (ref: 2023)	0.025*** (0.005)	0.023*** (0.005)	0.069*** (0.008)	0.064*** (0.006)
Pseudo R ²	0.127	0.234	0.099	0.158
Log-likelihood	-2458.7	-2179.9	-6003.4	-5607.1
N	14,620	14,620	14,620	14,620

Figure 3: Loneliness during COVID-19: interactions by female and age categories

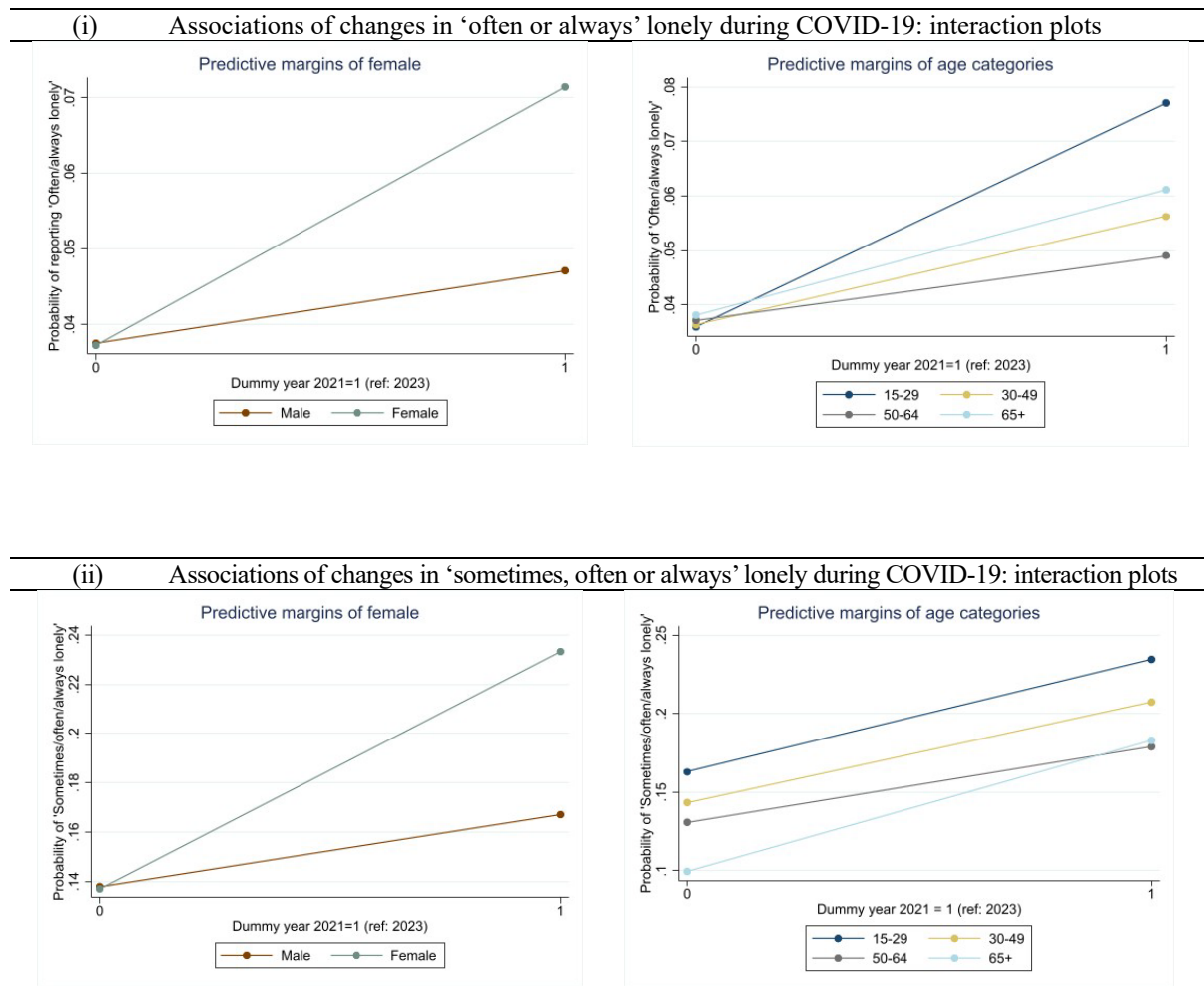


Table 3 presents the associations between loneliness, mental health, and quality of life. Individuals who frequently felt lonely had a 35.6 percentage point higher probability of experiencing probable mental health problems compared to those who were less frequently or never lonely. Being female, younger, having a disability, being unemployed, engaging in home duties, and having few social supports were positively associated with probable mental health problems. Conversely, being married, having good health, achieving a degree, living outside of the area of the capital city of Dublin, and participating in social groups were negatively associated. The association between loneliness and probable mental health problems was smaller (a 21.2 percentage point increase) when a broader definition of loneliness (at least experiencing this sometimes) was examined.

Loneliness was negatively associated with reported quality of life. Frequently feeling lonely was associated with a 22.4 percentage point lower probability of reporting good quality of life, while experiencing loneliness at least some of the time was associated with a 17.5% percentage point lower probability. Many of the associations between quality of life and the control variables mirrored those observed for probable mental health problems, but in the opposite direction.

Table 3: Estimation results on mental health, 2021 & 2023

	Probable mental health problem		Good quality of life	
	(1)	(2)	(1)	(2)
Often/always lonely	0.356*** (0.026)	/	-0.224*** (0.025)	/
Sometimes/often/always lonely	/	0.212*** (0.012)	/	-0.175*** (0.012)
Female	0.042*** (0.007)	0.039*** (0.007)	-0.006 (0.008)	-0.001 (0.008)
<i>Age category (Ref: 15-29 years)</i>				
30-49	-0.006 (0.012)	-0.004 (0.012)	-0.025* (0.013)	-0.026* (0.013)
50-64	-0.048*** (0.013)	-0.044** (0.013)	-0.017 (0.014)	-0.021 (0.014)
65+	-0.094*** (0.014)	-0.088*** (0.014)	0.049** (0.015)	0.042** (0.015)
Good health	-0.091*** (0.013)	-0.084*** (0.012)	0.250*** (0.015)	0.239*** (0.015)
Disability	0.087*** (0.012)	0.078*** (0.011)	-0.076*** (0.012)	-0.069*** (0.011)
Not born in Ireland	-0.015+ (0.008)	-0.010 (0.008)	0.006 (0.010)	0.004 (0.010)
<i>Marital status (Ref: single)</i>				
Married/civil partnership	-0.038*** (0.009)	-0.033*** (0.009)	0.048*** (0.010)	0.043*** (0.010)
Separated/divorced	-0.008 (0.016)	-0.009 (0.015)	-0.0008 (0.019)	0.001 (0.018)
Widowed	-0.051** (0.019)	-0.052** (0.018)	-0.001 (0.024)	0.002 (0.023)
Has children under 18	-0.008 (0.009)	-0.005 (0.009)	0.024* (0.010)	0.021 (0.010)
<i>Employment status (Ref: working)</i>				
Unemployed	0.066*** (0.015)	0.065*** (0.015)	-0.059*** (0.016)	-0.057*** (0.016)
Student	0.023 (0.019)	0.029 (0.020)	0.010 (0.023)	0.005 (0.023)
Retired	0.020 (0.014)	0.016 (0.013)	-0.050** (0.015)	-0.047** (0.014)
Looking after the home/other	0.031** (0.010)	0.031** (0.010)	-0.057*** (0.012)	-0.056*** (0.012)
<i>Region (Ref: Dublin)</i>				
Rest of Leinster	-0.027** (0.009)	-0.023* (0.009)	0.002 (0.010)	-0.001 (0.010)
Munster	-0.027** (0.009)	-0.021* (0.009)	0.005 (0.010)	0.001 (0.010)
Connaught/Ulster	-0.038*** (0.010)	-0.039*** (0.010)	0.048*** (0.011)	0.047*** (0.011)
<i>Highest educational achievement (Ref: less than Leaving Certificate)</i>				
Leaving Certificate	-0.015 (0.010)	-0.014 (0.010)	0.004 (0.010)	0.003 (0.010)
Degree (graduate/postgraduate)	-0.039*** (0.011)	-0.034** (0.011)	0.0005 (0.011)	-0.003 (0.011)
Participate in social groups	-0.031*** (0.008)	-0.030*** (0.008)	0.038*** (0.009)	0.036*** (0.008)
Few people to count on	0.063*** (0.008)	0.054*** (0.008)	-0.063*** (0.009)	-0.054*** (0.009)
Year dummy – 2021 (ref: 2023)	0.014+ (0.007)	0.008 (0.007)	-0.111*** (0.008)	-0.105*** (0.008)
Pseudo R ²	0.199	0.216	0.192	0.207
Log-likelihood	-4692.3	-4595.1	-5900.9	-5792.0
N	14,620	14,620	14,620	14,620
Notes: Statistical significance denoted by p-values: +p<0.1, *p<0.05, **p<0.01, ***p<0.001. Estimates are presented as average marginal effects. Robust standard errors in parentheses. Estimation results on the mental health and quality of life outcomes for the sample of the individual years of 2021 and 2023 are presented in the Appendix, Tables A-3 and A-5.				

5. DISCUSSION

5.1. Summarising and explaining the research findings

This study examined trends in loneliness, mental health, and quality of life within a representative Irish sample between 2021 and 2023. Notably, frequent loneliness (often or always) decreased from 5.9% in 2021 to 3.9% in 2023, while those experiencing loneliness at least some of the time fell from 20.2% to 13.5%. These *Healthy Ireland* survey results indicate a lower prevalence of acute loneliness compared to a 2022 EU survey, which reported 20% of Irish respondents feeling "lonely most or all of the time" (Berlingieri et al., 2023). However, we also note a separate 2022 Meta and Gallup global survey found approximately 13% of Irish respondents reported some degree of loneliness (6% "very lonely," 6% "fairly lonely") (Meta and Gallup, 2023).

Within the current sample, combined using the 2021 and 2023 data, approximately 13.7% exhibited indicators of a probable mental health problem, a notably lower prevalence for the Irish population compared to the 42.5% reported by Hyland *et al.* (2022) who used a different methodology to assess mental health disorder. The present study indicates that the majority (80.1%) of respondents reported a good quality of life. Regarding social connectedness, 31.4% reported belonging to a club or group, while 26.0% indicated having few close confidants. In answering the first research question as to who is lonely in Ireland, analysis of the predictors of loneliness revealed that having few people to rely on and probable mental health issues were strongly associated with acute loneliness (feeling lonely often/always). Being married, compared to being single, was associated with a lower likelihood of experiencing loneliness, while unemployment and looking after the home were associated with higher likelihoods. Older age groups (50-64 and 65+) were less likely to report loneliness compared to younger respondents (15-29). Furthermore, in answering the second research question, individuals frequently feeling lonely had a 35.6 percentage point higher probability of experiencing mental health problems compared to those less frequently lonely. Loneliness, whether defined acutely or broadly, was negatively associated with reported quality of life, with frequent loneliness showing a stronger negative association.

The findings of this Irish study on the predictors of loneliness, and its association with mental health, and quality of life resonate with broader international research (Barjaková et al., 2023; de Maio Nascimento et al., 2024) and can be interpreted within the specific socio-cultural context of Ireland. The more recently observed relatively low prevalence of frequent loneliness in 2023 (3.9%) coupled with a larger proportion experiencing occasional loneliness (9.9%) suggests a complex interplay of factors. While a majority reported good quality of life (85.8%), the presence of probable mental health issues in 12.5% of the sample underscores the interconnectedness of these constructs.

Several factors may explain the observed associations. The strong link between loneliness and mental health is well-established (Cacioppo et al., 2006; Crewdson, 2016; Erzen and Çikrikci, 2018; Lambert Van As et al., 2022; Park et al., 2020; Wang et al., 2018). In Ireland, as elsewhere, social support networks play a crucial role in mental wellbeing (McLean et al., 2023; Portela et al., 2013; Van Lente et al., 2012). The finding that having few people to rely on is strongly associated with acute loneliness highlights the importance of these connections. This aligns with Putnam's (2000) social capital theory, which posits that strong social networks contribute to individual and societal wellbeing.

The observed tendency for females to report higher levels of loneliness is a complex phenomenon influenced by socio-psychological factors (McQuaid et al., 2021; Pinquart and Sörensen, 2001). While research presents some variability, key explanations emphasise differing social expectations and emotional processing. Women are often socialised to prioritise intimate relationships, making disruptions or perceived deficits in these connections particularly salient (Taylor et al., 2000). Furthermore, women may exhibit a greater propensity to recognize and articulate emotional experiences, including loneliness, compared to men, who might be constrained by traditional masculine norms (Borys and Perlman, 1985). Life course factors, such as widowhood and caregiving responsibilities, which disproportionately affect women, also contribute to social isolation. It is also important to acknowledge that the quality of social interactions, rather than mere quantity, holds significant weight for women (Antonucci and Akiyama, 1987), meaning that a lack of perceived emotional support within social networks can heavily contribute to feelings of loneliness.

The lower likelihood of loneliness among married individuals may reflect the buffering effect of spousal support, a finding consistent with other research (Gibney et al., 2019; Kamiya et al., 2014). Conversely, unemployment and undertaking home duties or other non-employed states, are often associated with financial strain and social isolation, and thus could increase vulnerability to loneliness (Morrish and Medina-Lara, 2021).

The relatively higher association of loneliness and mental health challenges among younger adults (15-29) aligns with emerging research (Berlingieri et al., 2023; Lee et al., 2020; Siva, 2020; Twenge et al., 2021). This could be linked to the unique challenges faced by young adults in contemporary Irish society, including pressures related to education, employment, and the housing crisis (Cullinan et al., 2022; Smyth and Murray, 2022; Waldron, 2021). Furthermore, the digital age, while offering new avenues for connection, can also contribute to feelings of inadequacy and social comparison among younger people, potentially exacerbating mental health difficulties (Mccrory et al., 2022; Pittman and Reich, 2016; Primack et al., 2017; US Surgeon General, 2023b).

Broader examinations of loneliness in Ireland highlight the weakening of community ties, changing lifestyles, and demographics (Mc Hugh Power et al., 2019). Traditional social circles, once largely defined by family, neighbours, and local communities, now require more deliberate effort to cultivate due to changing lifestyles. This observation is echoed by the Loneliness Taskforce (2018) which notes that Ireland's aging, increasingly urban, and individualised population experiences diminishing connections with their communities.

The negative association between loneliness and quality of life is also consistent with existing literature (de Maio Nascimento et al., 2024; Gerino et al., 2017; Jakobsson and Hallberg, 2005). Loneliness can erode an individual's sense of purpose, self-esteem, and overall wellbeing, impacting their perception of quality of life. The fact that reporting more severe loneliness experiences has a stronger negative association than 'at least some of the time' experiencing loneliness emphasises the cumulative and detrimental effects of perceptions of more severe social isolation. The demographic profile of the sample, including the proportion born outside Ireland (18.6%) and those reporting a disability (21.2%), suggests the need for further research exploring the specific experiences of these groups. These populations may face unique challenges related to integration, accessibility, and social inclusion, which could influence their experiences of loneliness and mental health (Gómez-Zúñiga et al., 2023; Salari et al., 2025).

5.2 Policy implications

The findings of this study have several important policy implications for Ireland relevant across government policymakers, public health practitioners and General Practitioners (GPs), as well as wider society with a stake in these areas e.g., community groups.

The established link between loneliness and mental health highlights the need for integrated mental health strategies that prioritise social connectedness (McHugh Power and Swader, 2025). Social prescribing, connecting individuals with non-clinical community supports like social groups and services, has emerged as a key treatment strategy for loneliness. It features prominently in the Irish Health Services Executive's *Mental Health Promotion Plan 2022-27* (Doherty et al., 2022) and has also been a component of the UK's loneliness strategy (Siva, 2020). Typically delivered by GPs in primary care, social prescribing targets individuals needing health or mental health support, including those experiencing loneliness, social isolation, or other social needs. While social prescribing offers potential benefits, its reliance has limitations (Jentoft et al., 2024; McHugh Power and Swader, 2025). In their analysis of the UK's policy response to loneliness, Jentoft *et al.* (2024), argue that many direct interventions, often implemented through social prescribing, place the onus of addressing loneliness on individuals themselves. This approach, though well-intentioned, risks framing loneliness as a personal failing rather than acknowledging its complex roots. Crucially, it often overlooks the social determinants of health that contribute significantly to loneliness, focusing instead on individual solutions.

Public health campaigns aimed at raising awareness of the detrimental effects of loneliness and promoting social inclusion could be beneficial (Ding et al., 2022). Such campaigns could help destigmatise loneliness in Ireland (Gibney et al., 2019), encouraging individuals to acknowledge their feelings and overcome reluctance to seek support. There may also be a case for tailoring public health campaigns to different age groups, recognising the unique challenges faced by younger adults for example. The findings suggest a need for targeted interventions aimed at supporting young people in navigating the transitions to adulthood, fostering healthy relationships, and mitigating the potential negative impacts of social media and digital platforms (Alvarez et al., 2024; Salazar de Pablo et al., 2020).

Prioritising policies that foster social capital and community engagement is also crucial. Investing in community infrastructure such as community centres, supporting voluntary organisations, and creating opportunities for social interaction can strengthen social networks and reduce social isolation. Dingle *et al.* (2021) suggest that interventions focusing on developing and maintaining positive group memberships and identities can effectively address loneliness and improve mental health. Furthermore, environmental factors, particularly the availability of social infrastructure, warrant consideration (McHugh Power and Swader, 2025). Swader and Moraru (2022) identify a potential deficit in Ireland's social resources, noting comparatively lower levels of public social infrastructure, and some of the lowest per capita expenditures on recreation, sports, and culture in Europe.

Given the association between unemployment and those undertaking home duties with loneliness, targeted support programmes for these groups are warranted (Morrish and Medina-Lara, 2021). These programmes should not only address financial needs but also focus on fostering social connections and promoting mental wellbeing. The findings of this work also highlight the need for further research focusing on specific demographic groups, including those born outside Ireland and individuals with disabilities. Understanding the unique challenges faced by these populations is crucial for developing culturally sensitive and accessible support services (Gómez-Zúñiga et al., 2023; Salari et al., 2025). Finally, the strong negative association between loneliness and quality of life suggests that interventions aimed at reducing loneliness may have broader benefits for overall wellbeing (Alvarez et al., 2024; Zagic et al., 2022). Policies that prioritise social connectedness and mental health could contribute to improving quality of life for individuals and communities across Ireland.

More broadly, Goldman *et al.* (2024) recently published a valuable set of recommendations for developing loneliness policies, based on a scoping review of the European policy landscape. As they advise, effective policies require the expertise of loneliness specialists, particularly in the formulation of overarching visions and strategies. Moreover, intervention research must acknowledge the diverse experiences and needs of individuals experiencing loneliness, recognising that no single intervention will be universally effective.

5.3 Strengths and weaknesses

This study possesses several strengths. Its use of a representative repeated cross-sectional sample allows for generalisability of findings to the Irish population, enhancing the study's external validity. The investigation of multiple interconnected constructs – loneliness, mental health (using the MHI-5, a validated instrument (Ten Have et al., 2024)), and quality of life – provides a more holistic understanding of wellbeing. Furthermore, the study's findings align with established international research, strengthening the validity of the observed associations. The exploration of specific demographic factors, such as gender, marital status, employment status, and age, offers valuable insights into potential risk and protective factors for loneliness. Finally, the study's discussion acknowledges the specific socio-cultural context of Ireland, grounding the interpretation of findings within a relevant framework.

However, the study also has limitations. The cross-sectional nature of the data limits the ability to draw causal inferences about the relationships between variables. While associations are identified, the directionality of these relationships remains unclear. For example, while the study finds a link between loneliness and mental health problems, it cannot determine whether loneliness leads to mental health issues or vice versa. Furthermore, the reliance on self-reported measures for loneliness, mental health, and quality of life introduces the potential for response bias. Participants may underreport or overreport certain experiences due to social desirability or recall issues (Gove and Geerken, 1977; van den Broek et al., 2024). Finally, the study could be strengthened by including more granular measures of social connection beyond simply belonging to a club or having people to rely on, as well as a validated instrument for loneliness such as the UCLA scale (Russell, 1996). Exploring the quality and nature of social relationships could provide a more nuanced understanding of the role of social support in mitigating loneliness (Ermer et al., 2020).

5.4 Future research directions

These findings suggest several promising avenues for future research. Longitudinal studies are needed to disentangle the causal pathways between loneliness, mental health, and quality of life, exploring how these factors evolve over time and influence one another. Given the relatively high prevalence of occasional loneliness, research should investigate the factors that differentiate those experiencing transient loneliness from those experiencing more persistent or frequent loneliness, identifying potential protective factors and risk trajectories. Further exploration of the unique challenges faced by young adults in Ireland is crucial, particularly examining the role of social media and digital technology in contributing to or mitigating loneliness in this age group. Further qualitative research could provide valuable insights into the lived experiences of young adults, capturing the nuances of their social interactions and perceptions of social connection in the digital age. Comparative studies across different age cohorts are also needed to understand the specific social and economic factors that contribute to loneliness at different life stages in the Irish context.

Moreover, research should focus on the experiences of specific demographic groups, including immigrants and individuals with disabilities to investigate the impact of social integration, accessibility, and cultural factors on loneliness and mental health within these populations. A deeper understanding of the mechanisms linking loneliness to mental health and quality of life is also needed. This could involve exploring the role of cognitive factors, such as rumination and negative self-perception, as well as the impact of social isolation on physiological processes, such as stress response and immune function. Finally, research should evaluate the effectiveness of different interventions aimed at reducing loneliness and improving mental wellbeing in the Irish context. This

could include examining the impact of community-based programs, social skills training, and interventions designed to promote social inclusion and reduce social isolation (for example, O'Shea and Léime, 2012). Such research should utilise rigorous methodologies, including randomised controlled trials, to determine the most effective strategies for addressing loneliness and its associated negative outcomes.

6. CONCLUSION

In conclusion, this study offers valuable insights into the prevalence and correlates of loneliness, mental health, and quality of life within the Irish population. The findings highlight the complex interplay between these constructs, emphasising the crucial role of social connections and support networks in individual wellbeing. While the relatively decreasing prevalence of frequent loneliness from 2021 to 2023 is encouraging, the ongoing presence of some experiences of loneliness in a substantial proportion of the sample, warrants attention. The strong associations observed between loneliness, mental health problems, and diminished quality of life underscore the need for targeted interventions and policy initiatives aimed at fostering social connectedness and promoting mental wellbeing across the lifespan. Further research is needed to elucidate the causal pathways between these variables and to explore the unique experiences of specific demographic groups, informing the development of appropriate support services within the Irish context.

The study's findings have significant policy implications for Ireland. The demonstrated link between loneliness and mental health necessitates integrated mental health strategies that prioritise social connectedness. Public health campaigns promoting social inclusion and tailored interventions for the mental wellbeing of younger adults are crucial. Policies that foster social capital and community engagement, alongside support programs for unemployed individuals and homeworkers, should be prioritised. Furthermore, research focusing on specific demographic groups, such as immigrants and individuals with disabilities, is essential for developing culturally sensitive support services. Finally, the strong negative association between loneliness and quality of life suggests that interventions aimed at reducing loneliness may have broader benefits for overall wellbeing, contributing to improved quality of life for individuals and communities across Ireland.

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APPENDIX

Table A-1: Pairwise correlations, 2021 & 2023

	Often/ always lonely	Sometimes/ often/ always lonely	Probable mental health problem	Good quality of life	Female	Age	Good health	Disability	Not born in Ireland	Marital status	Has children under 18	Employment status	Region	Education	Social group member	Few to count on
Often/ always lonely	1															
Sometimes/often/ always lonely	0.500*	1														
Probable mental health problem	0.334*	0.356*	1													
Good quality of life	-0.224*	-0.289*	-0.335*	1												
Female	0.049*	0.065*	0.075*	-0.023*	1											
Age	-0.043*	-0.053*	-0.069*	-0.028*	0.021	1										
Good health	-0.176*	-0.018*	-0.234*	0.350*	-0.014*	-0.203*	1									
Disability	0.142*	0.155*	0.217*	-0.254*	0.036*	0.221*	-0.532*	1								
Not born in Ireland	0.032*	0.015	-0.003	0.026*	0.006	-0.183*	0.057*	-0.061*	1							
Marital status	-0.033*	-0.039*	-0.070*	0.014	0.075*	0.543*	-0.093*	0.112*	-0.045*	1						
Has children under 18	-0.034*	-0.059**	-0.040*	0.070*	0.040*	-0.153*	0.103*	-0.106*	-0.079*	0.157*	1					
Employment status	0.083*	0.108*	0.119*	-0.174*	0.111*	0.289*	-0.271*	0.294*	-0.104*	0.073*	-0.280*	1				
Region	-0.005	-0.017	-0.046	0.045	-0.018	0.052*	0.019	0.007	-0.063*	0.027*	0.013	0.0001	1			
Education	-0.033*	-0.065*	-0.078*	0.102*	0.097*	-0.343*	0.213*	-0.188*	0.181*	-0.156*	0.186*	-0.341*	-0.061*	1		
Social group member	-0.058*	-0.084*	0.093*	0.124*	-0.040*	-0.071*	0.111*	-0.080*	-0.045*	-0.025*	-0.014	-0.066*	-0.006	0.142*	1	
Few to count on	0.011*	0.148*	0.147*	-0.137*	-0.024*	0.029*	-0.085*	0.067*	0.061*	0.027*	-0.011	0.065*	0.0006	-0.095*	-0.107*	1
Year: 2021	0.047*	0.086*	0.037*	-0.143*	-0.0004	-0.022*	0.054*	-0.092*	-0.085*	-0.068*	0.006	0.108*	0.001	-0.055*	-0.208*	0.050*

Table A-2: Estimation results on loneliness, 2021

	Often/always lonely		Sometimes/often/always lonely	
	(1)	(2)	(1)	(2)
Female	0.036*** (0.008)	0.025*** (0.007)	0.086*** (0.012)	0.067*** (0.012)
<i>Age category (Ref: 15-29 years)</i>				
30-49	-0.028* (0.013)	-0.023* (0.011)	-0.033 (0.020)	-0.029 (0.019)
50-64	-0.043** (0.014)	-0.031* (0.013)	-0.076*** (0.021)	-0.062** (0.020)
65+	-0.047** (0.016)	-0.024 (0.016)	-0.092*** (0.024)	-0.057* (0.023)
Good health	-0.042** (0.015)	-0.019 (0.013)	-0.112*** (0.023)	-0.073** (0.023)
Disability	0.050** (0.016)	0.024+ (0.013)	0.111*** (0.022)	0.072** (0.021)
Not born in Ireland	0.009 (0.010)	0.012 (0.009)	0.001 (0.016)	0.006 (0.015)
<i>Marital status (Ref: single)</i>				
Married/civil partnership	-0.024* (0.010)	-0.016+ (0.009)	-0.059*** (0.017)	-0.045** (0.016)
Separated/divorced	0.0003 (0.021)	0.010 (0.020)	-0.005 (0.034)	0.011 (0.032)
Widowed	-0.026 (0.044)	-0.012 (0.060)	0.034 (0.088)	0.074 (0.086)
Has children under 18	-0.004 (0.009)	0.0003 (0.009)	-0.034* (0.016)	-0.028+ (0.016)
<i>Employment status (Ref: working)</i>				
Unemployed	0.006 (0.013)	-0.004 (0.012)	0.040 (0.023)	0.019 (0.021)
Student	/	/	/	/
Retired	-0.020* (0.010)	-0.025* (0.010)	0.010 (0.024)	0.002 (0.023)
Looking after the home/other	0.010 (0.010)	0.004 (0.010)	0.009 (0.017)	-0.0004 (0.120)
<i>Region (Ref: Dublin)</i>				
Rest of Leinster	0.009 (0.009)	0.016 (0.009)	-0.006 (0.016)	0.008 (0.015)
Munster	0.018+ (0.010)	0.024 (0.009)	-0.013 (0.016)	0.0007 (0.015)
Connaught/Ulster	0.0150 (0.011)	0.020 (0.011)	0.010 (0.019)	0.023 (0.018)
<i>Highest educational achievement (Ref: less than Leaving Certificate)</i>				
Leaving Certificate	-0.006 (0.010)	-0.005 (0.010)	0.001 (0.017)	0.005 (0.016)
Degree (graduate/postgraduate)	-0.0007 (0.011)	0.006 (0.011)	-0.020 (0.018)	-0.008 (0.017)
Participate in social groups	-0.008 (0.009)	-0.006 (0.009)	-0.008 (0.015)	-0.003 (0.014)
Few people to count on	0.041*** (0.009)	0.022** (0.008)	0.094*** (0.014)	0.065*** (0.014)
Probable mental health problem	/	0.156*** (0.017)	/	0.283*** (0.022)
Pseudo R ²	0.094	0.190	0.079	0.133
Log-likelihood	-1477.5	-1320.6	-3379.8	-3179.5
N	7306	7306	7306	7306

Table A-3: Estimation results on mental health, 2021

	Probable mental health problem		Good quality of life	
	(1)	(2)	(1)	(2)
Often/always lonely	0.343*** (0.033)	/	-0.294*** (0.034)	/
Sometimes/often/always lonely	/	0.210*** (0.016)	/	-0.234*** (0.018)
Female	0.049*** (0.011)	0.044*** (0.011)	-0.015 (0.013)	-0.005 (0.013)
<i>Age category (Ref: 15-29 years)</i>				
30-49	-0.001 (0.018)	-0.002 (0.017)	-0.020 (0.021)	-0.020 (0.020)
50-64	-0.033+ (0.019)	-0.032+ (0.019)	-0.013 (0.022)	-0.019 (0.023)
65+	-0.086*** (0.019)	-0.086*** (0.019)	0.060* (0.024)	0.054* (0.024)
Good health	-0.090*** (0.020)	-0.079*** (0.020)	0.240*** (0.025)	0.221*** (0.024)
Disability	0.098*** (0.020)	0.087*** (0.018)	-0.083*** (0.021)	-0.070** (0.020)
Not born in Ireland	-0.018 (0.013)	-0.012 (0.012)	0.015 (0.016)	0.012 (0.016)
<i>Marital status (Ref: single)</i>				
Married/civil partnership	-0.356* (0.014)	-0.030* (0.014)	0.046** (0.016)	0.039* (0.016)
Separated/divorced	-0.048* (0.023)	-0.044+ (0.023)	0.005 (0.033)	0.002 (0.032)
Widowed	-0.081 (0.061)	-0.093* (0.046)	-0.045 (0.063)	-0.027 (0.066)
Has children under 18	-0.020 (0.013)	-0.016 (0.013)	0.032+ (0.017)	0.026 (0.016)
<i>Employment status (Ref: working)</i>				
Unemployed	0.067** (0.020)	0.060** (0.019)	-0.048* (0.022)	-0.040+ (0.022)
Student	/	/	/	/
Retired	0.037+ (0.022)	0.029 (0.021)	-0.056* (0.026)	-0.049+ (0.026)
Looking after the home/other	0.019 (0.014)	0.024+ (0.014)	-0.051** (0.019)	-0.054 (0.019)
<i>Region (Ref: Dublin)</i>				
Rest of Leinster	-0.051*** (0.014)	-0.046** (0.014)	0.036* (0.017)	0.032+ (0.016)
Munster	-0.056*** (0.014)	-0.048** (0.014)	0.029+ (0.016)	0.021 (0.016)
Connaught/Ulster	-0.056*** (0.016)	-0.054** (0.016)	0.079*** (0.018)	0.078*** (0.018)
<i>Highest educational achievement (Ref: less than Leaving Certificate)</i>				
Leaving Certificate	-0.010 (0.014)	-0.013 (0.015)	0.003 (0.017)	0.005 (0.017)
Degree (graduate/postgraduate)	-0.042** (0.016)	-0.038* (0.016)	-0.005 (0.018)	-0.010 (0.018)
Participate in social groups	-0.012 (0.013)	-0.137 (0.013)	0.047** (0.015)	0.048** (0.015)
Few people to count on	0.068*** (0.012)	0.060*** (0.012)	-0.084*** (0.014)	-0.072*** (0.014)
Pseudo R ²	0.172	0.186	0.124	0.144
Log-likelihood	-2556.1	-2512.4	-3635.6	-3553.6
N	7306	7306	7306	7306
Notes: Statistical significance denoted by p-values: +p<0.1, *p<0.05, **p<0.01, ***p<0.001. Estimates are presented as average marginal effects. Robust standard errors in parentheses.				

Table A-4: Estimation results on loneliness, 2023

	Often/always lonely		Sometimes/often/always lonely	
	(1)	(2)	(1)	(2)
Female	0.005 (0.006)	-0.002 (0.005)	0.009 (0.010)	-0.027 (0.009)
<i>Age category (Ref: 15-29 years)</i>				
30-49	0.003 (0.010)	0.004 (0.008)	-0.024 (0.019)	-0.018 (0.017)
50-64	-0.004 (0.011)	0.007 (0.009)	-0.052* (0.021)	-0.027 (0.020)
65+	-0.007 (0.015)	0.012 (0.011)	-0.082** (0.026)	-0.049+ (0.025)
Good health	-0.049*** (0.011)	-0.024*** (0.008)	-0.087*** (0.017)	-0.046** (0.015)
Disability	0.017* (0.008)	0.003 (0.007)	0.046*** (0.014)	0.019 (0.013)
Not born in Ireland	0.026*** (0.008)	0.028*** (0.007)	0.025* (0.013)	0.029* (0.012)
<i>Marital status (Ref: single)</i>				
Married/civil partnership	-0.030*** (0.007)	-0.022*** (0.006)	-0.065*** (0.013)	-0.050*** (0.013)
Separated/divorced	0.005 (0.013)	0.00004 (0.010)	0.037 (0.024)	0.027 (0.022)
Widowed	0.045+ (0.025)	0.052* (0.022)	0.085* (0.034)	0.095** (0.031)
Has children under 18	0.009 (0.010)	0.006 (0.008)	0.001 (0.014)	-0.002 (0.013)
<i>Employment status (Ref: working)</i>				
Unemployed	0.055** (0.019)	0.036** (0.013)	0.061* (0.028)	0.028 (0.023)
Student	0.037* (0.016)	0.030* (0.014)	0.015 (0.021)	0.006 (0.020)
Retired	-0.005 (0.009)	-0.007 (0.008)	0.008 (0.021)	0.004 (0.019)
Looking after the home/other	0.022* (0.010)	0.014+ (0.008)	0.055** (0.018)	0.035** (0.017)
<i>Region (Ref: Dublin)</i>				
Rest of Leinster	-0.011 (0.008)	-0.009 (0.007)	-0.029* (0.013)	-0.026* (0.012)
Munster	-0.008 (0.008)	-0.009 (0.007)	-0.022+ (0.013)	-0.023+ (0.012)
Connaught/Ulster	-0.014+ (0.008)	-0.009 (0.008)	-0.013 (0.015)	-0.004 (0.015)
<i>Highest educational achievement (Ref: less than Leaving Certificate)</i>				
Leaving Certificate	-0.007 (0.008)	-0.004 (0.007)	-0.033* (0.015)	-0.027+ (0.014)
Degree (graduate/postgraduate)	-0.004 (0.009)	0.002 (0.008)	-0.036* (0.016)	-0.027+ (0.015)
Participate in social groups	-0.016** (0.006)	-0.008 (0.006)	-0.040*** (0.010)	-0.027** (0.010)
Few people to count on	0.033** (0.007)	0.019** (0.006)	0.094*** (0.013)	0.067*** (0.012)
Probable mental health problem	/	0.123*** (0.014)	/	0.029*** (0.022)
Pseudo R ²	0.196	0.320	0.122	0.187
Log-likelihood	-964.4	-816.2	-2578.4	-2387.6
N	7314	7314	7314	7314

Table A-6: Estimation results on mental health, 2023

	Probable mental health problem		Good quality of life	
	(1)	(2)	(1)	(2)
Often/always lonely	0.397*** (0.041)	/	-0.130*** (0.003)	/
Sometimes/often/always lonely	/	0.213*** (0.019)	/	-0.109*** (0.015)
Female	0.033*** (0.009)	0.033*** (0.009)	0.007 (0.009)	0.007 (0.009)
<i>Age category (Ref: 15-29 years)</i>				
30-49	-0.018 (0.018)	-0.008 (0.017)	-0.026 (0.016)	-0.029 (0.016)
50-64	-0.071*** (0.018)	-0.057*** (0.017)	-0.014 (0.017)	-0.019 (0.017)
65+	-0.100*** (0.022)	-0.081*** (0.023)	0.021 (0.020)	0.013 (0.020)
Good health	-0.087*** (0.015)	-0.085*** (0.015)	0.240*** (0.018)	0.234*** (0.017)
Disability	0.077*** (0.014)	0.071*** (0.014)	-0.062*** (0.012)	-0.059*** (0.012)
Not born in Ireland	-0.014 (0.011)	-0.008 (0.011)	-0.007 (0.012)	-0.009 (0.012)
<i>Marital status (Ref: single)</i>				
Married/civil partnership	-0.040*** (0.011)	-0.037** (0.011)	0.046*** (0.011)	0.043*** (0.011)
Separated/divorced	0.023 (0.020)	0.014 (0.018)	-0.010 (0.019)	-0.003 (0.018)
Widowed	-0.039+ (0.020)	-0.039+ (0.020)	0.008 (0.021)	0.010 (0.020)
Has children under 18	0.002 (0.012)	0.003 (0.012)	0.017 (0.012)	0.016 (0.012)
<i>Employment status (Ref: working)</i>				
Unemployed	0.064** (0.024)	0.073** (0.023)	-0.084** (0.027)	-0.086** (0.026)
Student	0.018 (0.019)	0.029 (0.020)	-0.010 (0.021)	-0.015 (0.021)
Retired	0.009 (0.020)	0.00002 (0.020)	-0.028 (0.018)	-0.025 (0.017)
Looking after the home/other	0.046** (0.015)	0.039** (0.014)	-0.073*** (0.016)	-0.068*** (0.016)
<i>Region (Ref: Dublin)</i>				
Rest of Leinster	-0.004 (0.011)	0.0001 (0.011)	-0.028+ (0.012)	-0.031+ (0.011)
Munster	0.002 (0.012)	0.005 (0.012)	-0.014 (0.012)	-0.016 (0.011)
Connaught/Ulster	-0.020 (0.013)	-0.024+ (0.013)	0.021+ (0.012)	0.021+ (0.012)
<i>Highest educational achievement (Ref: less than Leaving Certificate)</i>				
Leaving Certificate	-0.018 (0.014)	-0.012 (0.013)	0.006 (0.012)	0.004 (0.012)
Degree (graduate/postgraduate)	-0.034* (0.014)	-0.028* (0.014)	0.006 (0.013)	0.004 (0.013)
Participate in social groups	-0.039*** (0.009)	-0.037*** (0.009)	0.022 (0.009)	0.020 (0.009)
Few people to count on	0.057*** (0.011)	0.046*** (0.011)	-0.043*** (0.011)	-0.036*** (0.011)
Pseudo R ²	0.239	0.256	0.263	0.273
Log-likelihood	-2102.0	-2054.7	-2212.3	-2181.6
N	7314	7314	7314	7314
Notes: Statistical significance denoted by p-values: +p<0.1, *p<0.05, **p<0.01, ***p<0.001. Estimates are presented as average marginal effects. Robust standard errors in parentheses.				