

Loneliness and social connectedness: insights from a new EU-wide survey

HIGHLIGHTS

- A new EU-wide survey yields insights into how feelings of loneliness are related to the size and quality of social relationships, to major life events and to other important factors.
- In 2022, more than one third of respondents were lonely at least sometimes and 13% were lonely most of the time.
- The prevalence of loneliness decreases with increased age, income, and education.
- Having several meaningful relationships is associated with lower loneliness levels, but the frequency of contact also matters.
- People experiencing major life events such as separation, job loss or finishing their studies are more often lonely.

Background

Social connections are fundamental for individual well-being. Loneliness, the feeling of lacking meaningful social interactions, has been recognised as a serious public health issue. The increased risk of loneliness associated with prolonged lockdowns and self-isolation during the COVID-19 pandemic has brought attention to the problem, with media reports describing an ‘epidemic of loneliness’. The topic has raised concern among citizens and policymakers across Europe. However, the magnitude of the phenomenon and its determinants are not well understood.

Loneliness has been found to be associated with various factors, including poor health and low social connectedness; however, distinguishing determinants of loneliness from its consequences is a complex task. Nonetheless, identifying key factors associated with loneliness, as in this policy brief, can refine our understanding of the phenomenon and help identify areas of interest for further study.

The first-ever EU-wide survey on loneliness (EU-LS), carried out as part of a European Parliament pilot project by the European Commission’s Joint Research Centre (JRC) in collaboration with the Directorate General for Employment, Social Affairs & Inclusion (DG EMPL), provides a detailed overview of loneliness in the European Union. Data on more than 20 000 Europeans was collected at the end of 2022 from an online consumer panel. The survey provides answers to key questions such as

which socio-demographic groups are most lonely, and yields a detailed view of respondents’ social interactions, health, social media use and social attitudes. The relationship between loneliness and these aspects will be addressed in this and three other upcoming policy briefs. The present policy brief focuses on social relationships and life events.

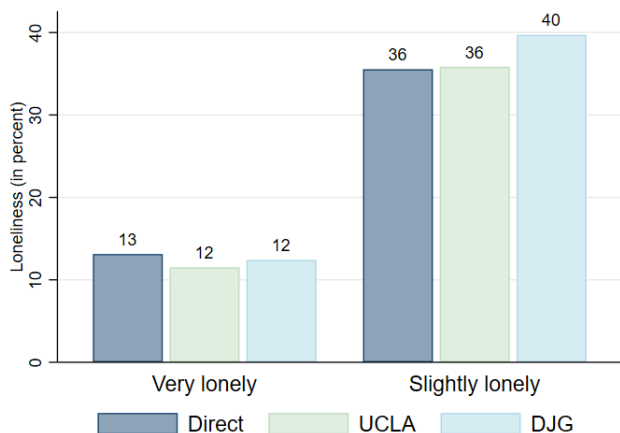
What is loneliness and how should it be measured?

Loneliness is a subjective feeling defined as an unmet need in terms of quantity or quality of social interactions. Being lonely is a negative feeling, conceptually distinct from being alone. The extent of loneliness is elicited either using direct survey questions, or scales based on multiple items. Survey participants rate each item on a scale typically indicating to what extent a statement applies. Answers are then assigned a weight and aggregated. The final score can be interpreted as a measure of the extent of the feeling or can be dichotomised for a simple categorisation into lonely and not lonely.

In the EU-LS, respondents were asked to answer one direct question and two scales, each comprising several items to measure loneliness (see Box 1 for a description of the scales). The inclusion of multiple measures, a unique feature of the EU-LS, allows researchers to compare loneliness levels across scales and individual characteristics. The direct question asks the respondent to report on the frequency of feelings of

loneliness over the preceding 4 weeks¹. Figure 1 reports the average share of respondents feeling lonely by loneliness measure and level of loneliness. Percentages are similar across measures by level. All correlations between the measures are above 0.6.

Figure 1 – Share of lonely respondents according to different loneliness measures



Source: EU-LS. For the direct measure, 'slightly lonely' refers to being lonely at least some of the time, while 'very lonely' refers to being lonely most or all of the time. See Box 1 for the measurements used for the UCLA and DJG scales.

As visible in the figure, the share of respondent feeling slightly lonely (36 to 40% depending on the measure) is much higher than the share of very lonely respondents (12 to 13%), suggesting that measurement choices matter in quantifying loneliness. For ease of interpretation, Figures reported below will focus on 'very lonely' respondents according to the direct question and, for simplicity, refer to them as lonely.

Who is lonely?

While there is broad agreement in the literature that loneliness is particularly prevalent in the young, scholars disagree on whether older people are also particularly affected. Some studies find a U-shaped relationship in which loneliness is high both among young adults and older adults [1], while others find a continued decrease in loneliness with age [2, 3]. Evidence is also mixed on whether men or women are more likely to report being lonely [4].

Figure 2 illustrates results from the EU-LS on the prevalence of loneliness by age and gender. We find the prevalence of loneliness to be decreasing with age, with the lowest levels among the oldest respondents. This, however, does not mean that loneliness among the elderly is not a problem as the consequences of loneliness may differ by age. On average, women are more likely to be lonely, but when looking at gender differences by age, these differences are not statistically significant.

The high prevalence of loneliness among the young may have been amplified by the Covid-19 pandemic. Indeed, previous JRC work shows that the share of people aged 18–25 reporting that they frequently felt lonely more than doubled between 2016

and spring 2020, while the increase in loneliness for people older than 65 was much smaller [5].

Box 1: Loneliness scales

De Jong-Gierveld (DJG) 6-item scale

Respondents were asked about the extent to which the following items applied to them:

- I experience a general sense of emptiness.
- I miss having people around.
- I often feel rejected.
- There are plenty of people I can rely on when I have problems.
- There are many people I can trust completely.
- There are enough people I feel close to.

There were three possible answers for each item (yes, more or less, or no). These are dichotomised following the authors' instructions [10]. The 6 binary variables are added up to build a 0–6 scale that is used to define the slightly lonely (4 or more) and the very lonely (=6).

University of California Los Angeles (UCLA) 3-item scale

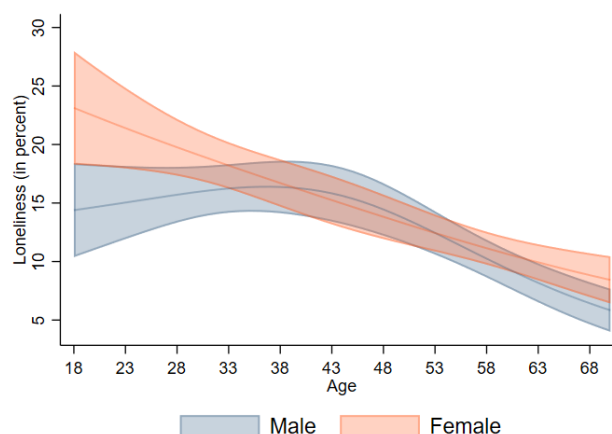
Respondents were asked the following three questions:

- How often do you feel that you lack companionship?
- How often do you feel left out?
- How often do you feel isolated from others?

Possible answers were: hardly ever (1), some of the time (2), or often (3). These are added up to build a 3–9 scale that is used to define the slightly lonely (6 or more) and the very lonely (8 or 9).

For all items, in both scales, respondents had also the possibility not to provide an answer. These respondents are excluded from the analysis.

Figure 2 – Probability of being lonely by age and gender



Source: EU-LS. Predicted values from a logistic regression with being lonely most or all of the time as the dependent variable. The red and blue lines show how the probability changes with age for men and women respectively. The lines show fitted values and 95% confidence intervals. See the Quick Guide for details.

¹ This direct question, 'How much of the time, during the past 4 weeks, have you been feeling lonely?', was asked with the same wording in the Survey on Income and Living Conditions in 2018 (ad hoc module on material deprivation, well-being and housing difficulties).

Box 2: JRC's previous work on loneliness

Given the importance of the topic, the JRC has long been studying the prevalence of loneliness in the EU. A study from 2018 found that loneliness was more prevalent in Eastern and Southern Europe than in Western and Northern Europe [6]. Moreover, a recent study has found that during the Covid-19 pandemic the incidence of loneliness increased in all countries and for most socio-economic groups, but in particular for the young and those not living with a partner [5]. Further studies investigated the role of school in mitigating this feeling [11] and the incidence (and consequences) of loneliness among older adults [12].

Apart from age and gender, several other individual characteristics are found to be associated with loneliness. Previous JRC studies find that the share of people reporting being lonely varies greatly by income level and work status [6]. Richer respondents are less likely to be lonely than those in lower income deciles and loneliness is more prevalent among the unemployed and students than among those who work. Education also matters, with higher education being negatively correlated with loneliness. Results from the EU-LS confirm these findings.

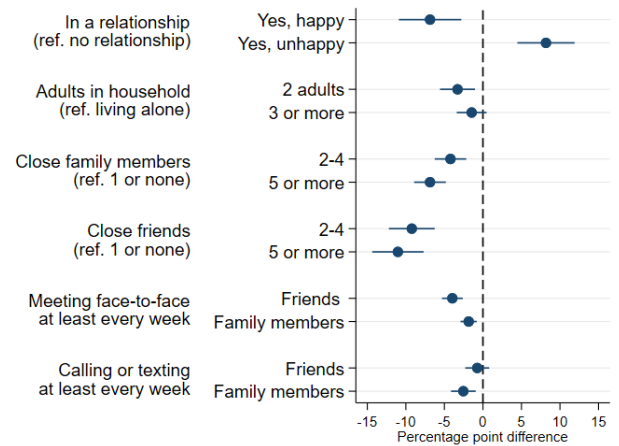
In addition to these individual characteristics, the literature has found loneliness to be associated with the number and quality of social relationships, as well as with major life events. This will be discussed in the following subsections.

The importance of social relationships

The quantity and quality of social relationships are key factors to prevent or reduce the feeling of loneliness. Most risk factors of loneliness ultimately come down to social interactions and personal relationships [7, 8]. The EU-LS contains extensive information about the quantity and quality of social relationships as well as about the frequency of social interactions. Figure 3 reports the main associations between these measures of social connections and whether an individual feels lonely most or all of the time. It is important to bear in mind that the relationship between social contacts and loneliness may be bidirectional: social connectedness can reduce loneliness but loneliness may also reduce the number and quality of social relationships.

Being in a relationship is associated with lower loneliness if individuals are **happy in their relationship** (-7 percentage points compared to singles). Those in unhappy relationships are more likely to be lonely than singles. Consistently, individuals **living with another adult** are 3 percentage points less likely to report loneliness compared to those living alone. Having a **close relationship with several friends and family members** not in the household is also linked to a substantially lower risk of loneliness compared to having just one close contact or none (-4 to -11 percentage points, depending on the number of close contacts). Finally, the **frequency of contacts with family members and friends** also matters: individuals who meet family members and friends at least once a week are 2 to 4 percentage points less likely to be lonely. At least for family members, this also applies to exchanges via phone, the internet or social media.

Figure 3 – Loneliness and social contacts

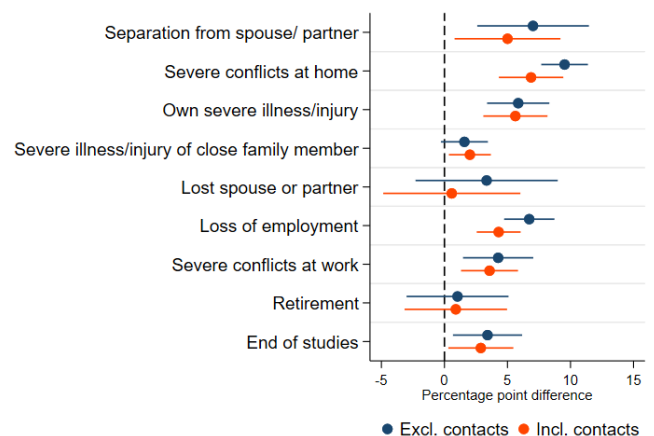


Source: EU-LS. Coefficients from a multivariate regression with being lonely most or all of the time as dependent variable. The lines show 95% confidence intervals. See the Quick Guide for details on the estimation. A negative percentage point difference shows that the group is less lonely than the reference group indicated in parenthesis.

Loneliness and major life events

Major life events, such as the loss of the partner or of a job, may disrupt one's social network and substantially increase the risk of loneliness [9]. Respondents were asked whether they experienced major events in the past year, with a focus on events with the potential of reducing the quantity or quality of social relationships. Figure 4 shows that especially events within the household, such as the presence of **conflicts at home** or **separation from a partner**, are associated with a higher risk of loneliness (respectively -10 and -7 percentage points compared to those not experiencing any of the events reported in the figure). Those experiencing **health shocks**, such as a severe illness or injury of oneself or a close family member, are also 2 to 6 percentage points more likely to feel lonely.

Figure 4 – Loneliness and life events



Source: EU-LS survey. Coefficients from a multivariate regression with being lonely most or all of the time as dependent variable. Blue dots refer to coefficients from a regression not including the measures of social contacts reported in Figure 3, while orange dots are results including these measures. The lines show 95% confidence intervals. See the Quick Guide for details on the estimation. The reference group is the one of those not experiencing any of the events.

QUICK GUIDE - Data used in this policy brief comes from the first-ever EU-wide survey on loneliness (EU- LS) carried out as part of a European pilot project by the JRC in collaboration with DG EMPL. The survey was conducted in November and December 2022 and targeted the general population aged 16 and above in all 27 EU Member States. Data were collected for a total of 25 646 respondents recruited from established consumer panels, with approximately 1 000 respondents per country except for Cyprus, Luxemburg and Malta (503, 370 and 529 respondents respectively). Figures presented in the policy brief refer to a smaller sample of 23 061 respondents for whom information on loneliness (see Box 1), age, education and gender was available.

Quotas based on the population of each Member State were used for sample selection from the online consumer panels. Quotas reflected the target population in terms of age, gender, educational attainment and NUTS region of residence based on available data from Eurostat. Moreover, *ex post* weights were calculated to account for possible further underrepresentation of the abovementioned socio-demographic groups. All figures report results using EU-27 weights.

Figure 2 shows separate predicted values for men and women's likelihood of being lonely as a function of their age. The dependent variable is a binary variable denoting whether one reports being lonely most or all of the time over the previous 4 weeks. Model fitting was obtained via a logistic regression with cubic splines in age. No other control variables were included in this regression.

Figures 3 and 4 show coefficients (average marginal effects) from a multivariate logistic regression. The dependent variable is a binary variable denoting whether one reports being lonely most or all of the time over the previous 4 weeks. Apart from the variables reported, other explanatory variables include age, gender, highest education and country fixed effects. Standard errors are clustered by country. Detailed results are available upon request.

Loneliness may also be triggered by work-related events. Individuals who **lost their job** or experienced **conflicts at work** are more likely to feel lonely (respectively, +7 and +4 percentage points). Individuals experiencing major changes in their professional status and activities may also be at a higher risk of feeling lonely. While we find no association between retirement and loneliness, those who **finish their studies** are 3 percentage points more likely to feel lonely. This may be due to the disruption of the social network respondents had at school or university.

Social relationships are often very important in coping with major life events and big shocks. Figure 4 shows that the magnitude of the relationship between events and loneliness is generally smaller when accounting for the measures of social contacts presented before. However, life events also affect the quality and number of social contacts. How social connections and interventions help in coping with major life events is an important question that may be addressed by future studies using longitudinal data.

Conclusions

The new EU-LS allows for an in-depth exploration of loneliness and its potential determinants in the EU. For the first time across the whole EU, loneliness is measured in several ways, allowing for comparisons across scales.

The data from over 20 000 respondents reveals robust patterns: the prevalence of loneliness decreases with age; it is broadly similar among men and women. Both the number and the quality of social relationships are important: having several close friends and family reduces the chances of being lonely, but being single is better than being in an unhappy partnership. Many adverse life events, such as experiencing a separation or a job loss, increase the probability of loneliness.

These findings support policymakers in identifying those in need of targeted loneliness interventions.

Related work

This policy brief is part of a series of publications related to the European Parliament pilot project 'Monitoring Loneliness in Europe', initiated by the European Parliament and implemented jointly by the Directorate-General for Employment, Social Affairs and Inclusion and the Joint Research Centre. More information can be found at [EU Science Hub – Loneliness](#).

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