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RESISTIRÉ
Reducing gendered inequalities caused by COVID-19 policies

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List of acronyms

Abbreviation	Meaning
BAME	Black, Asian, Minority, Ethnic
CSO	Civil Society Organisation
EC	European Commission
EU27	The 27 European Union countries
GBV	Gender Based Violence
IOM	International Organization of Migration
ISTAT	Italian National Institute of Statistics
LGBTI+	Lesbian, Gay, Bisexual, Transgender, Intersex and others
LGBTQ+	Lesbian, Gay, Bisexual, Transgender, Queer and others
LISS	Longitudinal Internet Studies for the Social Sciences (Panel Project)
NGO	Non-Governmental Organisation
NR	National Researcher
RAS	Rapid Assessment Survey
SOM	The Society, Opinion and Media Institute, University of Gothenburg, Sweden
SPoD	Social Policy, Gender Identity and Sexual Orientation Studies Association, Turkey

Summary

This report provides an overview of the third cycle mapping of quantitative indicators, at both national and European levels within the RESISTIRÉ project. The goal of this mapping is to measure, monitor and analyse the economic, social and environmental impacts of COVID-19. National insights are derived from the mapping of Rapid Assessment Surveys (RAS), which are studies undertaken at fast pace to understand the impact of the pandemic. European-level insights come from reviews of the literature and analysis of Eurofound online survey "Living, working and COVID-19", a large-scale European survey collected online between 2020 and 2022. The report also demonstrates how we are addressing research gaps identified in the first and second cycle of RESISTIRÉ through ongoing quantitative analysis in collaboration with the authors of 'promising' mapped RAS and through the development of a mobile application (app) and web survey.

In line with the theoretical conceptualisation of the RESISTIRÉ project, the report builds on an intersectional, gender+ approach.[3] The first cycle report on quantitative indicators provided analytical insights on the impact of the pandemic across multiple domains of inequality (work and the labour market, the economy, the gender pay and pension gap, the gender care gap, gender-based violence, decision-making and politics, human and fundamental rights, and environmental justice).[4] In the second cycle, we turned our focus towards the inequality grounds underpinning the RESISTIRÉ project, providing an update of the quantitative mapping of both national and European indicators with an emphasis on the experiences of young/older people, single parents, migrants/refugees/asylum seekers and Lesbian, gay, bisexual, transgender and queer (LGBTQ+) communities.[5]

This third cycle report is focused on quantitative indicators (longitudinal RAS, RAS collaborations, EU data analysis and web/mobile app survey) from a gender+ perspective that help us study the evolution of the pandemic, from its outbreak until now. Thus, it is centred around longitudinal data and indicators that can provide long

3 Verloo, M., 2013. Intersectional and Cross-Movement Politics and Policies: Reflections on Current Practices and Debates. Signs: Journal of Women in Culture and Society 38, 893–915. https://doi.org/10.1086/669572
Walby, S., Armstrong, J., Strid, S., 2012. Intersectionality: Multiple Inequalities in Social Theory. Sociology 46, 224–240. https://doi.org/10.1177/0038038511416164
4 Stovell, C., Rossetti, F., Lionello, L., Still, A., Charafeddine, R., Humbert, A.L., Tzanakou, C., 2021. RESISTIRÉ D3.1 Summary report on mapping of quantitative indicators -cycle 1. Zenodo. https://doi.org/10.5281/zenodo.5541035
5 Stovell, C., Lionello, L., Rossetti, F., Charafeddine, R., Nugent, S., Still, A., Tanwar, J., Tzanakou, C., 2022. RESISTIRE D3.2 Summary report on mapping of quantitative indicators -cycle 2. Zenodo.

term insights into how the pandemic has affected inequalities at local, national and European level. This allows us to draw lessons for the future and identify 'better stories' that can be useful for addressing future crises.

Findings from third cycle

The mapping of longitudinal RAS has shown that they are by their design a useful methodological tool for gaining a dynamic, real-time sense of the effects of pandemic policies on individuals, providing insights into the ways in which inequalities have been exacerbated and new inequalities emerged. The RAS analysis highlighted the need for strengthening public services for vulnerable groups, which is tightly interwoven with the development of public policies and actions based on evidence-based research through an intersectional lens. Although most RAS included variables for sex or gender and many captured indicators relating to other inequality grounds, more often than not, gender+ analysis of the data was limited or non-existent.

However, we identified better stories in terms of how the longitudinal RAS during the pandemic have been agile, dynamic and flexible to capture a volatile and uncertain situation, exploring vulnerable groups and integrating gender+ and intersectional approaches in some cases. Thus, some of the longitudinal RAS mapped in this cycle modified their survey design in terms of focus and scope, target group, and data collection techniques and, in some cases, were able to provide a more cohesive view of intersecting inequalities during the pandemic (See Section 1, pages 14-16 for more information on the selection of the longitudinal RAS).

Through the RAS collaborations, the RESISTIRÉ project partners worked together with researchers to explore existing surveys from a gender+ perspective. Amongst the outcomes of these collaborations, new data have been collected and/or further analysis was undertaken to address the RESISTIRÉ research agenda from an intersectional perspective, producing results on the effect of the pandemic on care and domestic work division, resilience and mental health, access to health services, gender pay and pension gaps. These collaborations gave insights into some of the frontline workers' and vulnerable groups' experiences of the pandemic (Healthcare workers, migrants, those with mental health concerns, LGBTIQ+). They also provide methodological leverages to conduct gender+ research. The RAS collaborations enriched and increased the pool of secondary data that can be utilised in the future to investigate gender+ perspectives on the impact of COVID-19. They contributed towards supporting researchers, with different disciplinary and methodological backgrounds from academia and beyond, to understand how a gender+ approach and analysis can underpin their future research activities. These collaborations are a testament to how extra funding (in some cases), time and expertise can help towards more and better intersectional analysis (See Section 2, pages 33 for more information on the process of the RAS collaborations).

The EU level data analysis gave important insights into the inequalities experienced by different intersectional groups in employment, work/life balance, care and household work, trust in institutions, perceived health, and resilience. Moreover, the third cycle allowed us to observe the experience of these individuals over the course of three years, providing an insight into the struggles and the resilience experienced by the European population in the unravelling of a public health emergency which has radically changed how we live. While many European institutions offer large-scale surveys with the possibility of observing changes over time, our work was particularly interested in the experience of respondents during the pandemic, and only a few datasets have published results interpretable in this way at the time of writing. The "Living, Working and COVID-19" survey conducted by Eurofound provided a consistent set of interesting indicators collected since the beginning of the pandemic, allowing us to observe changes across intersectional groups based on two characteristics – sex and socio-economic status.[6] While in some areas signs of slow recovery are identifiable, the concomitance of multiple crises from spring 2022 has hindered major improvements in peoples' lives. From spring 2020 until spring 2022, there was a decline in the proportion of people who said they lost their job during the pandemic, and feelings of social exclusion were less widespread in spring 2022 than in spring 2021. However, in all the other areas investigated, a generalised worsening was observed, which was gradual during the two years but reached a peak in spring 2022. This helps us to conclude that the road to recovery is still long; that the compound effect of all indicators observed have likely had an impact on intersectional inequalities, stalling the progress observed in Europe prior to the pandemic; and that European resilience must be accompanied by support tailored to the needs of specific situations and individuals (See Section 3, pages 104-126 for the European level analysis).

Finally, the web and mobile app survey demonstrated how a gender+ perspective can be embedded within a research survey from the very beginning. The demographic questions captured various inequality grounds to allow for an intersectional data collection and substantial effort was undertaken to translate the content of the survey into fourteen languages to maximise responses from participants. We envisage that the RESISTIRE survey will also contribute to intersectional data analysis once the responses reach a sufficient number to allow for such analysis (See Section 4, pages 124-126 for information on the design of the web and mobile app survey).

Recommendations

- The integration of a gender+ perspective needs to take place from the very beginning of the survey design, rather than as a later addition. Within the RAS mapping, there were notable data gaps in relation to race, disability, sexual

[6] Educational level was used as a proxy for socio-economic status (see section 3: EU analysis for further specification on the use of educational level). The intersection between sex and educational level leads to the identification of four groups: females with less than a tertiary education; males with less than a tertiary education; females with tertiary education; males with a tertiary education.

orientation and gender identity. Questions that capture different inequality grounds are necessary and data collection should be designed in a way that is as accessible and inclusive as possible.

- Researchers should engage with various stakeholders (e.g., Civil Society Organisations (CSOs), or public authorities connecting data collection with service delivery) to ensure that hard-to-reach populations can participate in surveys.
- More funding, time and expertise in conducting gender+ analysis should be factored into the design of intersectional research studies. This was demonstrated by the RAS collaborations in how additional funding alongside the inclusion of an intersectional lens can lead to new results and findings.
- Collecting sociodemographic data related to migration status, race, ethnicity, sexual orientation, and sex could play a key role in the future of intersectional analysis at European level. Current European statistics collect this information only partially and sporadically, significantly hindering research on inequalities.
- Examples of good practice with careful research design underpinned by gender+ analysis should be more widely shared and appreciated to encourage further survey research from an intersectional lens.
- The availability of short training courses, methodological guides and statistical programs could encourage researchers to undertake quantitative intersectional analysis. Furthermore, researchers working on intersectionality need to highlight the added value of intersectional approaches in revealing issues and trends that should inform policy actions.

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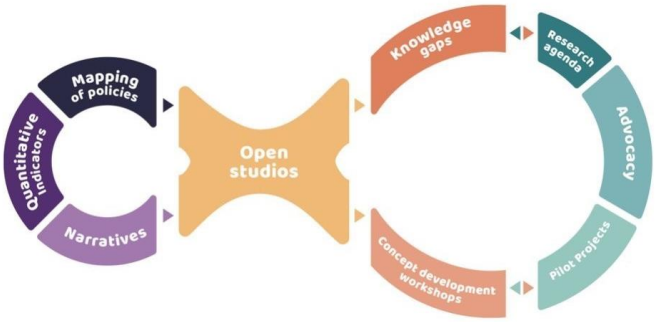
Introduction

The COVID-19 pandemic has brought to light the need to acknowledge pre-existing inequalities within vulnerable groups and develop policies and initiatives that can assist in building resilience for potential future crises. The third cycle of the RESISTIRÉ project therefore looks to the future within its conceptual framework by exploring the idea of 'better stories' within policies, individual experiences and quantitative mapping. 'Better stories' are a key aspect of the third cycle of research. They focus on the ways in which the pandemic can be seen as a catalytic moment for change - change that can influence not only institutional responses and individual agency, but also methodological design and data with gender+ design and analysis.[7]

The aim of RESISTIRÉ is to understand the unequal impacts of the COVID-19 outbreak and its policy responses on behavioural, social and economic inequalities in 30 countries, and to work towards individual and societal resilience. To meet this aim, RESISTIRÉ conducts policy analysis, as well as quantitative and qualitative research activities, to inform the design of innovative solutions. In this way, it responds to the outbreak through co-created and inclusive strategies that address old and new, durable and temporary inequality patterns in and across policy domains. RESISTIRÉ builds on an intersectional, gender+ theoretical approach[8]. The project focuses on inequalities and their intersections within domains: gender pay and pension gap, the gender care gap, gender-based violence, decision-making and politics, human and fundamental rights, and environmental justice, and specific inequality grounds (sex and/or gender, sexual orientation, ethnicity, race, nationality, class, age, religion/belief, disability, gender identity). The overall methodology of RESISTIRÉ is based on a step-by-step process running in three cycles over 30 months (April 2021-September 2023). All project activities are organised in these three cycles, feeding results into one another, including feedback loops between the cycles (see Figure 1). The project relies on an eleven-partner multidisciplinary and multisectoral European consortium, and a well-established network of researchers in 30 countries.

[7] Georgis, D. (2013). The Better Story: Queer Affects from the Middle East. New York: State University of New York Press.
[8] Verloo, M., 2013; Walby, S., Armstrong, J., Strid, S., 2012.

Figure 1: RESISTIRÉ methodological step-by-step three cycle process



In this third cycle, we are looking at quantitative indicators over time to understand how they might have changed during the pandemic and whether/how gender+ and intersectional approaches can provide useful insights into the pandemic. Through this focus, we envisage identifying better stories and lessons learnt regarding how to research and combat varying intersecting inequalities that may arise and be exacerbated through future crises. We are particularly interested in exploring further how methodological designs, approaches and datasets evolved during the pandemic and identifying good methodological practices and lessons for researching future crises from a gender+ and intersectional lens.

Thus, this report is comprised of four sections:

- A section which focuses on the longitudinal nature of local and national Rapid Assessment Surveys (RAS) across 30 European countries. A more detailed mapping of selective longitudinal RAS is presented on the basis of a) capturing hard to reach and vulnerable groups; b) intersectional design; c) data collection at different points in time throughout the pandemic; and/or d) large representative samples
- A section on RAS collaborations with the RESISTIRÉ project that aimed to harness the potential for further development and analysis of COVID-19 RAS from a gender+ approach. Seven collaborations are outlined, highlighting the purpose, nature and outcomes of each collaboration.
- A section on European analysis looking at change over time during the pandemic, focusing on data from four survey rounds of the Eurofound online survey "Living, working, and COVID-19" from an intersectional lens of sex and educational level.
- A section with a preliminary analysis of the RESISTIRÉ mobile app and web survey, which was launched during the second cycle and has surveyed participants throughout Europe regarding their pandemic experiences.

Section 1: Mapping longitudinal RAS

By Audrey Harroche, Alexis Still, Charikleia Tzanakou

1.1 Introduction

This section is focused on the quantitative mapping of Rapid Assessment Surveys (RAS) throughout Europe. In this final cycle, this mapping has focused on longitudinal studies, since they can provide insights into how individuals and groups can recover from the COVID-19 crisis. These studies can reveal dynamic trends over time, which is crucial to understand inequalities' transformations and how they can be tackled, especially in the disruptive context of crises where changes occur quickly.

Building upon previous RAS mappings, these longitudinal surveys have been analysed in regards to the evolution of their methodology and results over different waves. Furthermore, their analysis shows what can subsequently be learnt in terms of how to research and combat varying intersecting inequalities that may arise and be exacerbated through future crises. In this cycle, we looked more closely at whether these longitudinal RAS have taken a gender+ approach, the methodological aspects of the surveys in regards to their content and successive waves, and changes to their design over time. A key aspect of analysing these RAS was to explore whether there are good methodological practices and lessons for researching future crises, as well as lessons and recommendations that are provided by the RAS findings.

The key aims of the RAS mapping in the third cycle are:

- To gain a deeper understanding of the findings and methods of 'longitudinal' RAS mapped in the first and second cycles
- To explore how inequalities have changed during the pandemic, identifying better stories in longitudinal RAS findings (e.g., signs of reducing inequalities over time or groups who have not experienced negative outcomes during the pandemic)
- To get an insight into experiences of vulnerable groups through different stages of the pandemic.
- To identify methodological good practices and lessons for investigating and addressing future crises

These RAS have been selected on the basis of a) capturing hard to reach and vulnerable groups; b) intersectional design; c) data collection at different points in time throughout the pandemic; and/or d) large representative samples. Many of the mapped RAS were established during the early stages of the pandemic in 2020 and developed successive waves to capture change over time. These RAS often had gender+ questions and concerns within them, however did not focus on these issues as their main aim and therefore often did not provide in-depth data on gender+ inequalities. While this lack of gender+ analysis among the RAS may be due to timing or funding constraints that

restricted their ability to report on intersectional inequalities, it highlights that numerous datasets are available across Europe that could offer the potential for further analysis into the effects of multiple inequalities during the pandemic.

1.2 Methodological notes

In the first cycle of the RESISTIRÉ project, a mapping of RAS in 30 countries was undertaken by National Researchers (NRs) including RESISTIRÉ partners (For a full list of National Researchers per country in the third cycle, please refer to Appendix 1.1)[9]. RAS are studies conducted on the initiative of lobby groups, scientists or official agencies that provide swift, research-based assessments of a particular phenomenon, in this case the impact of the COVID-19 pandemic and associated policies. In total, 291 national RAS were mapped in the first RESISTIRÉ cycle (a full explanation of this process is included in the first cycle report)[10] and in the second cycle, NRs reported updates to 61 of these RAS. Additionally, 25 new 'promising' studies were identified that had not been mapped in the first cycle, bringing the current number of mapped RAS to 316[11]. It is important to note that these mapping exercises are not designed to create a comprehensive database of all pertinent RAS but instead provide a snapshot of the studies available at a national level. Within the report, we refer to mapped RAS according to their country code and number (e.g., UK01). Further details about the RAS referenced in the report are included in Appendix 1.2.

Having previously assessed the mapped RAS from the perspective of domains of gender inequalities[12], in the second cycle we focused on the mapped RAS that offer insight into four inequality grounds: age, sexuality and gender identity, nationality and relationship status. In this third cycle, we turn our focus to the longitudinal RAS mapped in the first and second cycles to provide a more in-depth exploration of their methodological processes and findings.

For the purposes of this task, we have defined 'longitudinal' as any study that has collected data on several occasions (waves) during the pandemic from March 2020. This does not have to be a panel study returning to the same participants in each wave. We also include in this definition any studies that have conducted follow-up surveys on a similar theme (e.g., investigating a new population or exploring an area of the previous study in more depth).

NRs were required to perform three tasks for the third cycle in regards to the RAS. The first was to verify which of the previously mapped RAS should be considered longitudinal, based on the broad definition outlined above. To do this, NRs checked the

9 See Footnote 4 and 5 for details of National Researchers from previous cycles.
10 Stovell et al., 2021.
11 Stovell et al., 2022.
12 Stovell et al., 2021.

information they previously provided in the first two cycles and undertook further desk-based research on the RAS, if necessary. The next step was to identify which of the confirmed longitudinal RAS would then be reported on in greater detail. NRs were asked to complete reports on two longitudinal RAS, with priority given to those RAS that took a gender+, intersectional approach, focused on a vulnerable or hard-to-reach population, or had an innovative methodological approach. If only two longitudinal RAS had been identified, the NR was asked to map both, and if no longitudinal RAS were identified, the NR was asked to undertake a search for one longitudinal study on the effects of COVID-19 from their country and report on that.

Priorities for selection:

1. a gender+, intersectional approach
2. focus on a vulnerable hard-to-reach population
3. one or more of the following:
    - large, representative sample
    - several waves of data collection
    - recent results
    - easily accessible information for completing the questions in the grid

The reporting grid for the longitudinal RAS asked for further information on the methodology and findings of the study. NRs explained why they had chosen the RAS and provided details about the features that make the RAS longitudinal, such as the dates of follow up waves, and any changes to the design or focus of the study. The grid then required details of any gender+ or intersectional approaches evident within the survey design or data, and a brief summary of the findings across the different waves, with specific attention paid to persistent or exacerbating inequalities. The reporting grid then moved on to ask whether there were any good practices or 'better stories' within the survey design, such as successful strategies to reach vulnerable populations, and whether there were aspects of this study that could provide useful lessons for researching future crises. Finally, NRs were asked to reflect upon the findings and recommendations of their chosen RAS in order to consider how to avoid the exacerbation of inequalities in crises such as the pandemic.

1.3 Results

The results are based on 101 RAS identified by the NRs. Across the three cycles, NRs reviewed RAS more closely and identified new surveys. The number of longitudinal surveys identified by each NR spanned from one to seven, with the most longitudinal studies reported in Belgium, Czechia and France (seven in each country), and the least in Cyprus, Hungary, Serbia, Slovakia, and Turkey with only one confirmed longitudinal RAS each.

1.3.1 What do the longitudinal RAS tell us about inequalities during the pandemic?

The longitudinal RAS mapping provided insights into how inequalities evolved during the pandemic and also allowed us to identify how they can be useful methodological tools for investigating inequalities over time during crises. Thus, they have been invaluable in drawing lessons for conducting quantitative intersectional research for future crises. The longitudinal RAS have provided useful information on which individuals have been the most affected by the pandemic over time and which inequalities have been exacerbated or were newly created during the pandemic.

A British RAS showed that individuals with a combination of intersecting identities were particularly at risk during COVID-19, such as working-class women who suffer financially and immigrant men who experience poor mental health (UK04). A survey from Poland indicated that the vulnerable groups who suffered a deterioration of work conditions were women, people with children, people with a low income, residents of rural areas, the middle-aged population, and people suffering from chronic illnesses (PL11). A Serbian study focused on mental health shows similar findings as well as identifying vulnerabilities related to age and the location of residence. It found that the youngest and oldest generations as well as people living in the largest cities were particularly vulnerable (SER01). A survey conducted in Turkey with migrants emphasised that elderly refugees were the most at-risk group, followed by people with chronic diseases, and children (TR09). A RAS led in Ireland also points out the vulnerability of the LGBTQ+ community (IE07).

The longitudinal RAS show that the pandemic reinforced inequalities that were already present. There was evidence that economic disparities (FR05, GER01, IS04, CZ02, SER01, IT02, PL04), and gender inequalities (IS04, SI08, CZ02, IE02, SER01, IT02, PL04, LT03) were in particular worsened during the crisis. For instance, research in Germany and Croatia demonstrated that measures taken by governments and companies to compensate for the economic damages of the pandemic were mostly applicable to qualified employees, skilled workers, and administrative departments, rather than less skilled and therefore lower paid workers (GER01, HR09). The use of longitudinal survey design has therefore allowed for a dynamic, real-time sense of the effects of pandemic policies on individuals, hence allowing for an analysis into the ways in which inequalities

have been exacerbated as a direct result of government action. A survey methodology implementing several waves of data collection also allowed analysis of issues such as gender inequalities in the workplace. A Spanish RAS led by Deusto University showed that the changes in the management of work, especially the importance of teleworking, reinforced the gender division of labor as the pandemic progressed (ES03). In Turkey, the struggles experienced by refugees were also exacerbated by the lack of accessibility to benefits and services due to limited language capabilities and reliance on digital devices (TR09). A survey in Poland showed that the extra care work for children and relatives that the pandemic has generated was carried out predominantly by women affecting their private and professional life. They reported increased social isolation and a general trend towards the re-traditionalisation of their role (PL04).

Many RAS also pointed to the emergence of new inequalities. Accessing digital resources and knowing how to use them was a key issue during lockdowns impeding elderly populations' access to information, services, and social contacts (NL06) or working-class children and students' ability to attend classes (SI08). Different RAS showed that language inequalities also acted as barriers to accessing public services and benefits (FR05, TR09).

Deterioration of mental health is one of the key findings across several RAS. A Belgian study showed that front-line workers experienced deterioration of their mental health conditions due to their work, especially in the healthcare sector where women are overrepresented (BE05). An Austrian study on sexuality during COVID-19 concluded that women, people with care responsibilities, and LGBTQ+ people experienced new forms of pressure, worries, fears, and psychological struggles (AT01). An Irish RAS researching LGBTI+ lockdown experiences showed that the well-being of young people from this group had deteriorated during the pandemic. They struggled with anxiety, stress, depression, acute loneliness, suicide ideation and self-harm with some of them experiencing homelessness or a hostile home environment. Another key finding of this survey is that Black and South Asian LGBTQ+ people were more than twice as likely to experience violence or abuse during lockdown compared to white LGBTQ+ people (IE07). Students were also reported as a population that experienced new struggles, especially with mental health as many of them were in a precarious situation during the crisis (FR05, IS04). A French study highlighted the sustained psychological repercussions of the pandemic with a long-lasting increase in mental health issues (FR05). However, a better story can be identified in Sweden where people reported only minor detrimental effects on mental health during COVID-19, which can be attributed to the less severe restrictions adopted by the government (SE11).

The restrictive measures were demonstrated to have some negative social repercussions especially to vulnerable groups. A study conducted in the Netherlands showed that the elderly population suffered more severely than other inequality groups from isolation and loneliness (NL06). An opinion survey in Latvia showed that the effectiveness of restrictive measures was short-lived. The number of respondents who were satisfied with the restrictions and considered them adequate decreased over time while the level of

distrust in institutions and the unwillingness of the population to comply grew (LV08). Other RAS conducted in Italy, Austria, Czechia, and Croatia identified a decrease in the level of trust in public institutions over time (AT10, CZ04, HR09, IT02). However, in Sweden a high level of trust in institutions was measured along with the reduction in the politicisation of trust in institutions (SE11).

1.3.2 Features of longitudinal RAS

Longitudinal survey design

The survey design varied across longitudinal studies in terms of the number of waves, frequency of collecting responses and overall duration of the fieldwork. Many of the mapped RAS were established during the early stages of the pandemic in 2020 and developed successive waves to analyse change over time (AT01, AT10, CY01, EE01, FI02, FR01, FR05, LV10). One especially detailed survey from Austria entitled the 'Austrian Corona Panel Project (ACPP)' has undertaken 33 successive waves of data collection starting in March 2020 and often utilised the same participants in each wave to allow cohesive exploration of change over time in regard to individual experiences of the pandemic. This survey was conducted every week initially from March to May 2020, and then surveyed participants every other week in June and July 2020, and subsequently once a month from August 2020 to June 2021. After June 2021, the survey was undertaken six more times. Almost 16% of respondents have been present in all 33 waves so far (AT10). Another ongoing survey from Finland entitled 'Citizens Pulse' undertaken by Statistics Finland explored the role of the pandemic in regard to mental health issues, working conditions, home life, childcare and public attitudes towards government policy (FI02). This survey was first conducted in April 2020 and has been repeated approximately once a month since then.

Many of the longitudinal RAS had distinct survey waves throughout the pandemic and have subsequently concluded data collection (BE04, BE05, CZ04, DK02, EE01, EE05, FR01, GER01, GER02, HR09, HU04, IS01, IS04, IE02, IE07, IT02, IT06, LT03, LV08, LU01, LU02, PL04, PT04, RO01, RO05, SI08, TR09). One RAS from Belgium measuring the effect of the pandemic on stress, relationships and intrafamily violence had three waves, one during the first lockdown in Spring 2020, one in Autumn 2020 and subsequently in Spring 2021. While this survey explored intersectional inequality grounds from the outset of data collection, it expanded its intersectional scope in the second wave by including questions on age, sexual orientation, religion and education level (BE04). In Luxembourg, a study on mental health surveyed participants one month after the start of containment measures in Spring 2020 and two weeks after the first assessment when containment measures were being relaxed again (LU02). While the two survey waves took place in quick succession and it has now concluded, the strategic timing of the survey waves allowed for analysis of how government policies directly affected mental health. Seventeen of the RAS were identified by NRs to still be ongoing, and therefore

have been able to survey the effects of the pandemic for a longer period of time (AT10, CY01, CZ02, DK02, DK06, EE01, ES03, ES05, FI02, FI09, FR05, HR07, IS09, PT07, SE12, SI10, UK04). These surveys allow for a more comprehensive view of the effects of the pandemic on vulnerable groups, especially the longer-term consequences of economic decline and policies such as forced isolation and social distancing.

Utilisation of pre-existing survey frameworks

Some of the mapped RAS were part of larger scale longitudinal studies that had been ongoing nationally for many years and often surveyed the same respondents and decided to provide a COVID-19-focused survey to their respondents from 2020 (DK06, ES03, IS09, NL02, PL11, UK04). This allowed for a comparative analysis between individuals' experiences before and during the pandemic. One such RAS was 'The Household Longitudinal COVID-19 Survey' from the organisation Understanding Society in the UK, which is part of an umbrella study and is the longest longitudinal household panel study of its kind, having been ongoing since 1991 (UK04). Similarly, two RAS from the Netherlands utilised the LISS Panel, a panel study that has been ongoing since 2009 and is based on a true probability sample drawn from Dutch population registers (NL02, NL06). The 'COVID-19 Gender (IN)equality Survey Netherlands' has analysed six waves of LISS panel data so far since April 2020 and explored topics such as work/life balance, employment, mental health and childcare (NL02). The other RAS identified in the Netherlands was an academic study focused on the issues of loneliness and mental health in older adults aged 65-102 years during the pandemic (NL06). This RAS utilised the LISS panel to recruit their participants and was part of a larger study which had begun prior to COVID-19, which enabled comparing data to pre-pandemic measurements regarding the lives of vulnerable elderly people.

Another study that shifted the focus to inequalities during the pandemic was from Denmark, highlighting the changing levels of employment of non-Western immigrants (DK06). This RAS was carried out by Statistics Denmark every three to nine months and utilised the ongoing nature of their study to compare pre-pandemic and pandemic levels of unemployment among migrants, emphasising how non-Western immigrants were especially affected financially by COVID-19. Some established longitudinal RAS maintained the same format as they had previously, but simply added in extra questions regarding the pandemic. Examples include a pre-existing study from Sweden on public health (SE12), another from Sweden that monitored society, opinions and media (SE11) and one from Poland exploring 'current problems and events' in the country (PL11).

Those RAS that utilised pre-existing survey frameworks and already developed samples could build upon already well-established datasets and undertake detailed comparisons between pre-pandemic quality of life and specific issues that arose during COVID-19. Collaborating with well-established surveys implemented on a large scale is also an efficient way to reach representativeness of the general population leading to robust results (PL11, IT02). For example, the Italian National Institute of Statistics (ISTAT) used the following weighting method. A representative sample of the Italian population was

constructed by stratification with respect to the geographical area and municipal size (up to 50,000 inhabitants and over 50,000 inhabitants). The estimates produced by the survey are values of absolute and relative frequencies of qualitative variables and averages of quantitative variables, referring to individuals. The estimates are obtained using a calibration estimator, usually used by ISTAT in the household survey. The principle underlying any sample estimation method is that the units belonging to the sample also represent the population units not included in the sample. This principle is achieved by giving each unit in the sample a weight indicating the number of population units represented by that unit (IT02).

Longitudinal RAS using pre-existing frameworks adopted different approaches in terms of the focus and/or the target population of the data collection in relation to the pandemic. Some RAS, such as one of the surveys from the Netherlands, utilised a large-scale panel study for their sample and focused on one specifically vulnerable population; that of elderly people (NL06). Other RAS focused on broader issues which allowed for a comprehensive overview of the experiences of national populations but could not often provide targeted analysis for particular vulnerable groups, and thus subsequently could not offer specific, focused recommendations on how to cope with future crises for those who were worst affected. Thus, there were different implications in relation to the size, scope and focus of the RAS. Often the broad scale of these longitudinal studies lacked intersectional analysis on the combination of vulnerabilities that individuals experienced. Smaller scale, targeted surveys were more likely to provide more solution-focused recommendations across specific inequality groups, but had smaller, less representative samples.

As mentioned previously, longitudinal RAS utilising pre-existing survey frameworks can provide key insights into the lives of vulnerable groups prior and during the pandemic, especially regarding the consequences of national policies on individual lives.

1.3.3 Evolution of the RAS over time

One of the key findings from the mapping of the longitudinal RAS in the third cycle was that the research design of many longitudinal RAS changed over time in regard to their key focus, recruitment strategies, target populations, additional questions, and data collection methods.

Changing survey content to respond to a rapidly changing society

Several RAS changed the content of their surveys in subsequent waves or added supplementary questions. Some of these studies did so in response to their changing national social and political environments, such as surveys that altered or added questions as the nature of the pandemic changed in regards to vaccine availability (FR01, LT03, SE11), government interventions (for instance introduction of masks and social distancing) (GER04, HU04, IS01) and governmental policies (in relation to education and

work such as homeschooling and work at home guidance) (EE01, FI02, IT02, LV08). Other studies altered their focus in light of contemporary events, and included additional questions that allowed participants to reflect on their opinions and experiences of inflation, the cost of living and the war in Ukraine (EE01, GER04, RO05, SK04).

A few of the RAS teams modified the content of their survey in response to results from the first waves of data collection or feedback from academics and users. The Turkish Rapid Needs Assessment on the Impact of COVID-19 on Migrant and Refugee Populations undertaken by the International Organization for Migration (IOM) had a broader perspective in their second wave in order to include questions that covered challenges accessing social services during the pandemic (TR09). While initially respondents were asked to compare how the pandemic affected their ability to access social services compared to pre-pandemic, the second wave was more specific in detailing protection under sub-sections of access (education; health; basic needs; livelihoods), allowing the survey and needs assessment to create more targeted recommendations and programs.

Altering methodologies to increase survey participation

Data collection methods changed over time in some RAS to enhance wider participation and capture more information on participants from vulnerable groups. The 'Coronavirus SOM Survey' from the Society, Opinion and Media (SOM) Institute in Sweden was a special pandemic focused RAS that utilised a pre-existing survey in Sweden on society, opinions and media (SE11). The survey conducted two waves during the pandemic with slightly different questions between the first wave (April 2020) and second wave (April 2021) to reflect the changing nature of the pandemic. The key change was in shifting the data collection method from postal surveys in the first wave (2020) - complemented later on by an online survey option - to an online survey in the second wave (2021) - complemented later by a postal survey option. This resulted in a greater uptake in responses and a preference for respondents to complete the survey online, with 75% filling out the survey online in 2021 compared to 33% in 2020. Similarly, in the UK, the 'Household Longitudinal COVID-19 Survey', part of a larger umbrella study, also altered its data collection methods during the pandemic (UK04). Until May 2020, surveys had been conducted via the web, however in May and November 2020 they also conducted telephone interviews for those who did not regularly use the web and therefore were able to broaden their reach to elderly populations, and those without consistent digital access.

The design and focus of a Polish survey on 'Everyday life during the pandemic' changed across the survey waves, taking into account data trends from the initial waves. In the first and second waves, online questionnaires were conducted, however in the third wave participants were asked to respond to visual materials documenting the pandemic, specifically photography (PL04). Thus, survey closed questions were supplemented with

open questions which provided a space for respondents to share their concerns and experiences of everyday life during the pandemic. The photographs provided by the researchers were of differing aspects of the pandemic and aimed to evoke the spatial dimensions of the pandemic and the contextual nature of individuals' experiences. The combination of a survey with visual materials enriched the data from a gender+ perspective by encouraging individuals with intersecting vulnerabilities to share specific experiences of the pandemic such as family life and the home, and the reality of working during a crisis situation.

In response to capturing survey responses from hard-to-reach groups, research teams modified the RAS methodology to enhance participation from specific target populations. An Irish study on 'LGBTI+ Life in Lockdown' by charity BeLonG was not originally designed as a longitudinal RAS but reacted to the ongoing damaging nature of the pandemic on LGBTQ+ people by undertaking a second wave (IE07). Both waves included similar questions, but the method for recruiting participants changed in order to increase the diversity in the pool of respondents. In both waves social media channels related to LGBTQ+ in Ireland were utilised to advertise the project, however in the second wave the charity increased their outreach by working with local, regional and national organisations that provided services to or advocated for LGBTQ+ individuals. This meant that they were able to increase the sample size from 1855 to 3194 respondents. However, there were still limited responses from older individuals (65+ age group) and from non-white communities, which meant that researchers focused on analysis of data for younger groups (14-24 years old) and were unable to perform further intersectional analysis. This survey however, while not initially designed to be repeated over time, showed how research design can be adapted, in this case in response to a clear and identifiable need for capturing the needs and experiences of vulnerable groups as the pandemic progressed (IE07).

A survey that more purposefully chose to target children and young people was the UK household COVID-19 survey, which specifically targeted young people aged 10 to 15 with survey topics such as technology, friendship and socialising, family, wellbeing, school and health through a paper 'Youth self-completion' sub-survey during three of the nine survey waves (UK04). This allowed the researchers to utilise existing participant channels of parents or carers to reach young people within the household and gain an insight into their experiences during the pandemic.

A RAS from Portugal on the social and psychological health of LGBTQ+ young people in the pandemic undertook five waves but decided to broaden their age range to those aged 16-60 years old in their second and third waves from 16-35 years old in their first wave, and added questions regarding access to healthcare connected to gender affirmation, mental health issues, relationships and the use of the internet (PT07). These additional questions and broader target population allowed for a more in-depth analysis of the experiences of the LGBTQ+ population in Portugal and the consideration of intersectional inequalities, leading to recommendations that focused on assisting a highly vulnerable community.

One RAS from Sweden was criticised for the narrow sample population in regard to the age of respondents (SE12). The Public Health survey from Sweden targeted people aged 16-84 years old as part of their broader, long-term umbrella study however, for their 2021 COVID-19 specific study, a number of researchers pointed to the fact that the exclusion of people aged 84 years and above from the survey, who were the group most likely to be affected by COVID-19, was an example of ageist discrimination. As a result, an additional sample of 10,000 people over the age of 84 was also drawn (SE12).

Flexibility and adaptation of longitudinal methodology – a better story?

A key benefit of the use of longitudinal methodology is the ability to adapt and change when issues are identified with the initial survey wave(s). As evidenced in the sections above, researchers were able to respond dynamically to gaps in their data collection, the changing course of the pandemic and feedback from users and other researchers to enhance their data. Thus, a 'better story' produced by the analysis of longitudinal RAS is how they have often been highly flexible in adjusting their methodologies to capture a highly volatile and uncertain pandemic environment. The survey questions changed over time, and/or were added, according to the current events and the research findings. Many RAS were designed with government policies in mind to cope with the succession of extraordinary measures put in place to address the virus spread such as lockdowns, restrictions on movement, and vaccines availability (CZ02, GER02, FI02, DK02, RO01, HU04, IS01, ES03, IT02, LV08). Their evolutive nature also allowed some RAS to focus on specific groups that have experienced the adverse effects of the pandemic more than others. For instance, the German "Corona Online Survey'' researched workers' experiences during COVID-19 and found that self-employed people were significantly more affected than other workers. Consequently, the fifth wave (out of eight) focused on this subcategory of workers. In total, the survey collected responses from 1,350 self-employed individuals, 208 of whom had already been considered in the first wave (GER02). The case of the RAS Kansalaispulssi (Citizens' Pulse) undertaken by the Finnish government demonstrates that this kind of methodological plasticity is useful to research undertaken during events such as the pandemic and the Russo-Ukrainian War. This RAS was initially developed in April 2020 in order to study mental health, well-being, working conditions, and opinions on COVID-19 policies and their effects on respondents' lives. The questions were adapted in 2022 to evaluate the effects of the Russo-Ukrainian War on the Finnish population (FI02). This demonstrates how RAS can be developed quickly yet still be utilised consistently in a flexible and dynamic way.

While these adaptive surveys are very useful for grasping changes occurring during crises, their methodology may not be the most suitable for tracking developments in comparison to the pre-crisis period. The questions posed were specifically geared towards the COVID-19 crisis, making the data often incomparable with surveys

administered prior to the pandemic. As previously discussed, to compensate for this limitation some NRs recommended combining the RAS with a pre-existing longitudinal societal study as a way of using reliable data and comparing the status quo with the times before and after (DK06, ES03, FI02, IS09, IT02, NL02, PL11, UK04).

The impact of funding on survey design

We also observed methodological changes to longitudinal RAS due to funding. In Slovenia, a survey undertaken on behalf of the National Institute of Public Health focusing on the effects of the pandemic was extended because a different market research agency with greater resources was able to take over the project from the original survey leaders, which allowed for a more comprehensive analysis of the effects of COVID-19 over time. After 12 initial waves, an additional 14 waves were introduced and conducted by the new research agency, allowing for 26 waves altogether (SI10). A survey on Love, Intimacy and Sexuality during the pandemic led by a university in Austria changed its regional focus in its first and second wave from Germany and Austria to Germany, Austria and Switzerland due to funding opportunities provided to survey Swiss citizens (AT01). A RAS from Belgium focusing on the effects of the pandemic on stress, relationships and intrafamily violence was identified as promising after its initial data collection by the State Secretary and was therefore offered national funding to run again with two further survey waves (BE04).

These examples highlight that some of the RAS can be extended and improved with the right funding, input and guidance. As explored later in our reporting on the RAS collaborations, the influx of further funding and expertise can extend the opportunities for intersectional data collection and analysis provided by longitudinal surveys.

The longitudinal RAS that were explored in greater detail during this cycle showed a clear level of responsiveness on behalf of the researchers in aligning survey content in reaction to government policies regarding the health, social and economic effects of the pandemic and current global events. Subsequent waves also responded to participant feedback and gaps within the data by adjusting methodology, forms of recruitment and target population.

1.3.4 Evidence of gender+ research design

Several longitudinal RAS had a clear gender+ approach, including those with intersectional design approaches, recruitment strategies targeting vulnerable and hard-to-reach groups and topics specifically relevant to those suffering from the effects of gender+ inequalities.

A survey from Finland explored the effects of the pandemic on rates of domestic violence and has been continually gathering data since the start of the pandemic

through shelters and helplines led by the Finnish Institute for Health and Welfare (FI09). Intersectionalities between gender, ethnicity, class and age are analysed using this data, and there is further potential for gender+ analysis using the dataset as it is updated, also allowing for analysis throughout the pandemic and 'post' pandemic.

Another survey, the COVID-19 Impact Survey (CY01) from Cyprus conducted gender+ analysis considering socioeconomic background, age, disability and race/ethnicity investigating issues related to gender-based violence, the gender care gap and mental health. With a large sample of 10,000 participants, this survey was largely representative and featured individuals from various geographic locations and backgrounds.

One RAS that focused explicitly on the intersection of multiple inequalities was from IOM in Turkey, and sought to assess the needs of migrants and refugees during the pandemic through a gender and inclusion lens, engaging with women, LGBTQ+ individuals, persons with disabilities and medical conditions, GBV survivors, indigenous populations and ethnic minorities, allowing for a longitudinal analysis of the effects of the pandemic on the most vulnerable populations (TR09).

CoviPrev: A RAS with an intersectional approach
An interdisciplinary project from France entitled 'CoviPrev' explored behaviour and mental health during the pandemic in four survey waves in May 2020, June 2020, June 2021 and September 2022, and is still ongoing (FR05). This RAS is based on an interdisciplinary research project covering social and medical issues and combines a serological[13] study of the state of COVID-19 infection of the respondents with a survey of health and living conditions. The survey was run by telephone or online. The sample was extracted from a national tax and housing database (Fideli) and responses are crossed with housing, tax and social security data. The study is a collaboration between researchers from the public medical research organisation Inserm and the public, social and health statistics agency Drees, and sampled 371,000 participants over the age of 15 from not only France but also the French overseas territories of Martinique, Guadeloupe and la Réunion. This RAS was selected to be explored in greater detail due to its high-quality analysis, and its intersectional approach, with a specific focus on the inclusion of individuals from various ethnic origins and its gender+ analysis (ethnicity, age and socioeconomic deprivation).

Several of the RAS focused on issues of sex, gender and sexuality during COVID-19, providing an insight into the specifically gendered aspects of the pandemic in relation to care, mental health and wellbeing, and gender-based violence. Regarding sexuality, three RAS in particular explored gender and gender identity alongside demographic variables to allow gender analysis. A civil society organisation in Ireland led a survey on 'LGBTI+ Life in Lockdown: One Year Later' with two waves (September 2020 and April-May 2021), centered around the mental, physical and sexual health of LGBTQ+ people in Ireland, as well as their home environment and housing (IE07). The survey envisaged the participation of respondents of different genders and identities/expressions, with varying sexual orientations, races, ethnicities and age that would enable intersectional analysis. However due to the recruitment methods of social media outreach, older age groups were largely excluded and therefore underrepresented in the data. This meant that the intersectional analysis of the effects of the pandemic from this survey was limited and did not capture the breadth of the LGBTQ+ community in Ireland. Similarly, a RAS from Portugal focused on the social and psychological health of LGBTQ+ individuals, issues relating to age, mental and physical health, housing and family, but did not include other inequality grounds such as race/ethnicity, religion or disability (PT07). A RAS from Austria entitled 'Love, Intimacy and Sexuality in times of Corona' focused on the individual experiences of women, men and those from the LGBTQ+ community in regards to their romantic relationships during the pandemic (AT01). The survey also investigated the dynamic interrelationship between love, intimacy and sexuality with demographics such as age, living conditions and education. While this RAS collected

[13] The examination of antibodies and other substances in the serum (the clear liquid part of the blood).

intersectional data, the analysis seems to be lacking regarding how multiple intersecting inequalities affected individual experiences during the pandemic.
A RAS in Latvia presented data through an intersectional perspective, highlighting the differences in public attitudes towards COVID-19 in regards to individuals' age, sex, language and employment (LV08). Similarly, in Romania, there was a RAS which focused on living and working during COVID-19 and provided an intersectional analysis between gender and age, specifically in relation to work-life balance, the gender care gap and employment security (RO05). The UK Household Longitudinal COVID-19 Survey is a long-running survey that altered its focus to COVID-19 to explore participants' experiences of the pandemic (UK04). The survey used demographic variables including age, gender, race/ethnicity, socioeconomic status, religion and immigration and asked specific questions that allowed for further analysis of gender+ inequalities on topics such as pregnancy and fertility, care and support, mental health, financial assistance, domestic work, homeschooling and food insecurity and nutrition.

Intersectionality challenges of longitudinal RAS

It has been challenging to identify longitudinal RAS that could provide rich data to conduct intersectional analyses. There seemed to be two key challenges: a) missing data on various inequality grounds and b) lack of intersectional analysis even when relevant data existed.

Many longitudinal surveys were conducted using representative samples, thus aiming to study the effect of the pandemic on the overall population. While longitudinal RAS had standard demographic variables such as sex, gender, age and socioeconomic background, a comprehensive gender+ approach was often lacking with no specific attention paid to intersecting inequality grounds (BE04, BE05, CZ02, CZ04, DK02, GER01, GER02, HU04, IS01, IT02, IT06, LU01, LU02, NL06, RO01, SI08). One such RAS from the Czech Republic utilised quota sampling covering the general population, making it difficult to identify the extent to which the pandemic affected specific vulnerable populations and lacked data on inequality grounds such as disability, sexuality and race/ethnicity (CZ02). Similarly, a survey from Italy entitled 'The Diary of the Italians' collected and presented data regarding gender, age, working conditions and educational level, and highlighted how women were particularly affected during the pandemic in relation to gender-based violence, the gender care-gap and homeschooling issues. However, the RAS was not designed with a gender+ approach and thus it was not possible to explore intersectional perspectives in their data (IT02).

Some datasets provided by the RAS were identified by NRs as allowing for intersectional analysis, such as a survey from Finland on citizens' experiences of the pandemic, that asked participants questions on several background variables such as sex/gender, age, financial situation, childcare, educational background and parental concerns (FI02). Similarly, a study from Poland on 'Everyday life in times of the pandemic' (PL04) and another on 'The professional situation of Poles during the pandemic' (PL11) covered multiple demographic questions that serve as a basis for intersectional analysis. A RAS

from France regarding housing during COVID-19 covered numerous issues aside from accommodation and living conditions, including employment, physical and mental health, culture, sociability and masks and vaccinations (FR01). This survey gathered detailed information on the demographic variables of participants such as their age, sex, socioeconomic status, and educational level. While researchers on these surveys conducted gender analysis in regard to their key topics, they often did not analyse the data from a gender+ lens.

Although many longitudinal RAS were chosen to be mapped in the RESISTIRÉ project due to their gender+ focus, some RAS analysed in this report centered around one inequality domain and did not undertake intersectional analysis. Compared to other inequality grounds, there is marginal focus in the RAS regarding race, with only three surveys specifically analysing the differing effects of the pandemic on non-white individuals (DK06, IE07, UK04). There are also few surveys that discuss sexuality and gender identity which point to a clear omission of data on these issues across Europe.

The lack of gender+ analysis among the RAS may be due to timing, technical expertise or funding constraints that restricted their ability to report on intersectional inequalities. Nevertheless, this highlights that numerous datasets are available across Europe that offer the potential for further analysis into the effects of multiple inequalities during the pandemic.

1.4 Lessons for addressing future crises

Four main recommendations can be drawn from the analysis of these longitudinal RAS regarding managing future crises.

Firstly, many of these studies highlight the role of public services during the COVID-19 crisis and recommend strengthening them. This is critical to prevent harmful effects on frontline workers and vulnerable groups who depend the most on these services. During the pandemic, public services were put to the test, with their role being even more prevalent than before. They had to implement change rapidly while dealing with more users. For instance, regarding gender-based and domestic violence, formal structures were especially necessary for victims who were even more isolated from potential help providers, given the importance of social distancing measures at play at the time (BE04). Furthermore, some RAS insisted on the necessity to invest in these structures outside of crises to make them more resilient and adaptive when it is the most needed (FR05, IT06, LU02). This aspect is especially put forward regarding digitalisation. From guaranteeing education (IT06) to assisting the homeless (FI09), digital access to services was central during the pandemic, given the impossibility of face-to-face interactions. However, to be able to rely on digital resources during future crises, it is necessary to improve digitalisation in the public sector while closing gaps in digital inequalities (BE04, IT06). RAS in different countries also call for a strengthening of childcare structures to prevent exacerbation of gender, social, and territorial inequalities during crises (AT10, IT06,

NL02, RO05).

Secondly, many RAS advocate for public policies to better consider vulnerable groups and intersecting inequalities. These longitudinal RAS showed that during COVID-19, the most vulnerable groups were the most affected and also had specific needs that were not addressed. For example, the study in Turkey highlights that the needs of the refugee population must be addressed when managing crises (TR09). Another study conducted in Portugal indicates that most government measures targeted families assuming a traditional model, which led to marginalising many categories of people, such as sex workers and migrants. The authors of this study (PT07) highlight the need for inclusive crisis management as was also recommended by one of RESISTIRÉ factsheets where inclusive crisis management plans that build on a gender+ intersectional approach can be key in mitigating the exacerbation or creation of new inequalities[14]. Different RAS highlighted that mental health support should be available for vulnerable groups but also adapted to their specific requirements (AT01, BE04, GER02, IE07, LU02, PT07, SI10). Many RAS researching working conditions also recommended offering particular solutions to workers. More specifically, they advocated for policies to address the needs of those who just started to work, workers who were self-employed, people with migratory background, and people who had already been unemployed from the start of the pandemic; otherwise, compensatory measures benefitted highly skilled workers the most (GER01, HR09, RO05). In France and Iceland, research alerted public authorities to the lack of support given to students (IS04, FR05).

Thirdly, the analysis of RAS has demonstrated that CSOs and support networks can play a key role in developing and engaging with RAS that aim to capture vulnerable and hard-to-reach groups. Better collaboration between stakeholders who often conduct RAS (academic teams, governmental agencies etc.) with CSOs is necessary towards collecting and understanding intersectional experiences during crises. Support should also be directed towards charities, local initiatives, structures, and care networks that have known and worked with these groups for a long time in order to enable collective organising rather than only giving support on an individual basis (AT01, FR05, NL06, PT07, TR09). Drawing lessons from the HIV crisis, the author of an Austrian RAS states that effective pandemic management measures rely on non-stigmatising mitigation strategies which can only be put in place through community mobilisation and collective care practices (AT01).

Finally, the fourth recommendation noted across many RAS is the necessity to conduct research during crises to inform public authorities, especially through an intersectional lens. Most of the RAS call attention to the need to reflect and learn from the COVID-19 crisis without neglecting its long-lasting effects that still need to be assessed (IS09, IT02, LT03, SER01). Most surveys researching people's opinions on the measures taken during

[14] Altinay, A.G., Türker, N., Ensari, P., Adak, H., 2022. RESISTIRÉ Factsheet 8 Crisis Management for All: Inclusive, Multi-Actor Crisis Management. Zenodo. https://doi.org/10.5281/zenodo.7053650

COVID-19 highlight the need for more transparency, better communication, and accountability from governments that data-driven public policies can support (AT10, CZ04, LT03, RO05).

What methodological lessons can we learn from the RAS during the pandemic to enhance intersectional analysis?

There were two key methodological lessons from the longitudinal RAS conducted during the pandemic that could enhance intersectional data collection and analysis. The first lesson relates to the significance of integrating a gender+ perspective when designing the surveys' background questions. It is at this stage that studies can lay the foundations for intersectional analysis by integrating questions on sex and/or gender, sexual orientation, ethnicity, nationality, social class/socioeconomic background, age, religion/belief, dis/ability etc. The RAS mapping showed that when these questions were included, the surveys generated a wealth of intersectional data (AT01, CY01, LU01, RO05, SI10, TR09, UK04). Otherwise, even with a good population representation and a high number of waves, sometimes data on vulnerable groups do not seem to be captured (e.g., CZ04) which is more than a missed opportunity given that they are at risk to be impacted to a greater extent during crises. The use of background questions also contributed to making the RAS results comparable and hence cumulative. The Turkish branch of the IOM used IOM global rules, principles, and techniques which are based on United Nations' documents in order to make their results comparable to the ones of other studies (TR09). It was highlighted that making the surveys accessible in open access was a good way to share methodologies. Therefore, analogous studies can be designed and implemented in different contexts and expand global understanding of the crisis through comparative work.

The second methodological lesson drawn from the longitudinal RAS concerns the need to ensure that data collection is as accessible and inclusive as possible. The COVID-19 pandemic showed that the most affected groups can also be the hardest to reach, and the pandemic further complicated data collection due to restrictive measures as many surveys had to be administered online. That was the case for the elderly population, for example. Some RAS made sure that the questionnaires were not only available online but also through paper or phone (e.g., NL06, PL11). For a Serbian RAS, elderly people in the community were recruited by letter, followed by a telephone call or house visit (SER01). Translating the surveys was also identified as a good practice in order to include migrant groups (AT01, CY01). Another way to successfully collect data from hard-to-reach groups was to connect participation to the RAS with service delivery or government/NGO support. For example, the Turkish IOM sampled their beneficiaries for recruitment. The survey was conducted in the native languages of the target group by social workers and psychologists from the Psychosocial Mobile Teams (PMTs). Having the survey conducted by experts that beneficiaries already knew made it easier to reach out to more marginalised populations. Before conducting the interviews, the social workers were trained to handle potential conflicts sensitively. They were also taught

about commonly used colloquial expressions that people might use to describe their mental health and psychosocial support issues. (TR09). Other RAS have also used interviews, and mixed methods, in order to better explore a subgroup or to access hard-to-reach groups (AT10, DK02, FI02).

Section 2: RAS Collaborations

By Audrey Harroche, Alexis Still, Charikleia Tzanakou, Anne Laure Humbert, Clare Stovell, Federica Rossetti, Lorenzo Lionello, Rana Charafeddine

This section presents the collaborations between the RESISTIRÉ project partners and researchers from across Europe to explore existing surveys from a gender+ perspective. Initially, we envisaged that a small number of RAS collaborations- collaborations between stakeholders responsible for RAS and the RESISTIRÉ team – would share and disseminate their existing findings to inform RESISTIRÉ activities and outputs. However, this scope was extended since we conducted an extensive mapping of RAS across the three cycles (see previous section and previous deliverables)[15] that met this objective. We have thus utilised these collaborations to develop new research activities that address data knowledge gaps and relevant research questions outlined in the research agendas[16] emanating from the RESISTIRÉ project.

What is the purpose of collaborations?

One of the key findings in the first and second research cycle was that, although most RAS included variables for sex or gender and many captured indicators relating to other inequality grounds, more often than not, gender+ analysis of the data was limited or non-existent. This appeared to be a missed opportunity and it was considered important for RESISTIRÉ to utilise the RAS collaborations to contribute towards more and better gender+ analysis in existing and future RAS activities. This enriches and increases the pool of secondary data that can be utilised in the future to investigate gender+ perspectives on the impact of COVID-19. It also contributes towards enabling and supporting researchers, with different disciplinary and methodological backgrounds from academia and beyond, to understand how a gender+ approach and analysis can underpin their future research activities.

Within a gender+ perspective, RAS collaborations in this section contribute towards addressing research questions and knowledge gaps within various policy domains, including care, work, pay and pension, human rights and health and GBV. Collaborations could take many forms and this depended on the nature of the RAS, as well as the willingness and the resources of the RAS authors. However, two main collaboration approaches were adopted:

a. Influencing (modifying/adding) questions in current and future waves of the RAS to collect data that addresses the RESISTIRÉ research agenda and allows for gender+ analysis in relation to the impact of the pandemic.
b. Conducting gender+ analysis on existing RAS data to provide new insights and

[15] Stovell et al., 2021; Stovell et al., 2022.
[16] Živković, I., Kerremans, A., Denis, A., 2021. RESISTIRÉ - Agenda for Future Research - 1st Cycle. Zenodo. https://doi.org/10.5281/zenodo.5846267 ; Sandström, L., Strid, S., 2022. RESISTIRÉ Agenda for Future Research - cycle 2. Zenodo. https://doi.org/10.5281/zenodo.7043345

better understanding of the pandemic's impact from a gender+ lens.

Seven collaborations were established, three were already in place for cycle two and four more have been added since then. Summaries of the purpose, nature and outcomes of these collaborations now follow.

2.1 Rapidly formed COVID-19 teams in the NHS: implications for leadership, team-working, career intentions and individual mental health (NHS COVID Teams)

Institution	*Department of Psychology, Health and Professional Development, Oxford Brookes University*
Funders	*ESRC, UK*
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Update

This collaboration was set up in cycle two to align with one of the key aspects of RESISTIRÉ's first cycle research agenda: inequalities relating to health and healthcare.[17] This survey also aligns with key topics in the second cycle research agenda on the intersection between care and work, intersectional perspectives on the experience of work during and after the pandemic, and barriers and facilitators to fair recovery.[18]

The 'NHS COVID-19 teams' study is a UK-wide, two-phase study looking at how both permanent and deployed staff developed teamwork and team bonding, and how their work and experiences affected their mental health, retention and future career intentions (for more information see the second cycle report).[19] The RESISTIRÉ research agenda stresses the importance of taking the (gendered) perspectives of healthcare workers into account and encourages decision-makers to draw on their experience to increase preparedness for future crises and improve conditions within the sector. This study has highlighted how healthcare workers in particular have taken on some of the heaviest burdens of the pandemic and there is a clearly observable gender divide, as women held the majority of high-risk healthcare positions.

Researchers in the UK leading this study collaborated with the RESISTIRÉ project to modify some and include new questions to ensure that gender+ implications – in relation to social support, gender-based violence and care – can be considered and analysed in the future.

[17] Živković et al., 2021.
[18] Sandström & Strid, 2022.
[19] Stovell et al., 2022.

The survey was administered between 17 January and 31 March 2022 and received 458 valid responses. The findings presented in this report consist of the initial analysis of the survey results and highlight the new data that have been gathered regarding gendered experiences of healthcare workers and intersectional inequalities affecting healthcare personnel during the COVID-19 pandemic.

Burnout by gender, minoritised ethnic group and staff grade

There is a clear difference between women and men in terms of burnout, and this is likely to have long-term consequences in regards to job performance and retention. Burnout was measured on a scale that consisted of 7 items, asking respondents to rate the following statements: whether their work is emotionally exhausting; whether they are burnt out because of their work; whether their work frustrates them; whether they are exhausted at the thought of another day/shift at work; whether they are worn out at the end of their working day/shift; whether every working hour is tiring for them; and whether they do not have energy for family and friends during leisure time. The scores are rated on a 5-point Likert scale range from 0 (no burnout) to 10 (always feeling burnout), in increments of 2.5. Not only are women more likely to experience burnout overall ($p<0.01$), they are also more likely to score higher on every item except for feeling frustrated by work (Table 2.1.1). Staff from a white background were overall more likely to experience burnout ($p<0.05$), and this was mostly related to being more likely than staff from minoritised ethnic groups to feel worn out, exhausted or frustrated. It is important to note that staff with minority background were more likely to be shielded from the most high-risk COVID work, due to higher infection risks. Grade did not matter overall, though junior staff were more likely than senior staff to feel worn out or exhausted ($p<0.01$ and $p<0.05$ respectively). However, there were no differences by age.

Table 2.1.1: Average burnout among women (n=391) and men (n=64); white (n=379) and minoritised ethnic group (n=75) staff; and junior (n=307) and senior (n=104) staff

			p			p			p
…work emotionally exhausting?	Women	6.71	***	White	6.64		Junior	6.60	
	Men	5.82		Minoritised ethnic group	6.33		Senior	6.68	
…burnt out because of your work?	Women	6.43	**	White	6.35		Junior	6.39	
	Men	5.70		Minoritised ethnic group	6.20		Senior	6.20	
…work frustrates you?	Women	6.55		White	6.68	***	Junior	6.56	
	Men	6.37		Minoritised ethnic group	5.73		Senior	6.59	
…exhausted at the thought of another day/shift at work?	Women	6.41	***	White	6.38	**	Junior	6.48	**
	Men	5.27		Minoritised ethnic group	5.60		Senior	5.84	
…worn out at the end of your working day/shift?	Women	7.31	***	White	7.34	***	Junior	7.44	***
	Men	6.37		Minoritised ethnic group	6.40		Senior	6.73	
…every working hour is tiring for you?	Women	5.47	***	White	5.40		Junior	5.55	
	Men	4.57		Minoritised ethnic group	5.10		Senior	5.00	
…energy for family	Women	5.8	**	White	5.75		Junior	5.90	

and friends during leisure time?		5						
	Men	5.20		Minoritised ethnic group	5.80		Senior	5.53
Overall	Women	6.39	***	White	6.36	**	Junior	6.42
	Men	5.61		Minoritised ethnic group	5.88		Senior	6.08

** p<0.05; *** p<0.01

A key aim of the additional questions is to further examine how to prevent healthcare staff from burnout, and hence make the profession more attractive and resilient to crises such as the COVID-19 pandemic. Our analysis shows a moderate correlation (r=0.39) between burnout and extraordinary work-related experiences during the COVID-19 deployment that staff could not be prepared for (e.g., family liaison duties, increased mortality of patients, experienced colleagues being seriously ill).

Experiences of violence and care responsibilities

However, an individual's ability to respond to the crisis might have been affected by gendered factors, both within the workplace and in the home. In this analysis, we therefore examine the extent to which experiences of physical violence – from patients/relatives or from co-workers/managers – and care responsibilities at home, affect burnout. We are interested in differences across groups, and therefore include variables for sex, ethnic background, grade and age into our analysis.

Experiences of violence were coded from 1 (never) to 5 (always). The average score for experiences of violence from patients or relatives was 2.25, with no difference between women and men, between white and minoritised background staff, or by age (Table 2.1.2). However, junior staff were slightly more likely to experience violence from patients and relatives than senior staff ($p<0.05$). Experiences of violence from colleagues or managers was lower, with an average of 1.64. Furthermore, there were no statistically significant differences by sex, ethnicity, grade nor age.

Table 2.1.2: Experiences of violence among women (n=387) and men (n=61); white (n=373) and minoritised ethnic group (n=74) staff; and junior (n=304) and senior (n=101) staff

			P		p			p
Experiences of violence from patients or relatives	Women	2.23		White	2.28	Junior	2.31	**
	Men	2.26		Minoritised ethnic group	2.07	Senior	2.09	
Experiences of violence from colleagues or managers	Women	1.63		White	1.66	Junior	1.59	
	Men	1.67		Minoritised ethnic group	1.50	Senior	1.67	

** p<0.05; *** p<0.01

Note: The question on violence and harassment were posed as follows: "How often, if at all, did you experience physical violence, harassment or abuse from co-workers and managers?" and "How often, if at all, did you experience physical violence, harassment or abuse from patients or relatives?" (Experiences of violence were coded from 1 (never) to 5 (always)

In total, n=221 people responded to the question asking them about how much impact their work on a COVID-19 ward has on their care responsibilities (e.g., for children or elderly). This was rated on a four-point scale, from 0 (no impact) to 3 (major impact). The impact of care responsibilities was roughly the same for women and men, between staff from a white or minoritised ethnic background, and between junior and senior staff (Table 2.1.3). However, age seems to be an important variable (Figure 2.1.1), with impact highest among child-bearing age (30 to 49) and rising again for staff aged 60 and over ($p<0.05$). These life periods might correspond to peak demands for childcare and care for elderly relatives respectively.

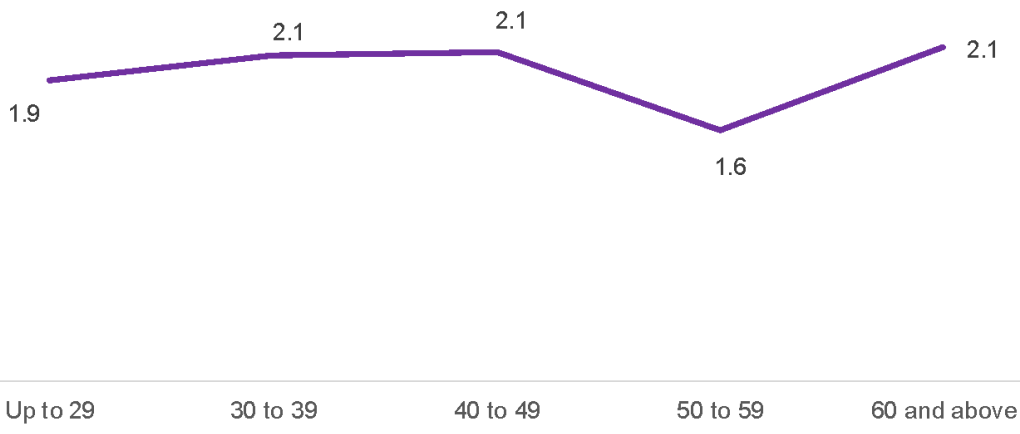
Table 2.1.3: Impact of care responsibilities among women (n=198) and men (n=20); white (n=182) and minoritised ethnic group (n=36) staff; and junior (n=141) and senior (n=57) staff

Women	2.02	White	1.99	Junior	2.06
Men	1.80	Minoritised ethnic group	2.08	Senior	1.88

** p<0.05; *** p<0.01

Note: The question on care responsibilities was posed as follows: "If you have care responsibilities (e.g., for children or elderly), how much did your work on a COVID-19 ward impact on those responsibilities?" Care impact was rated on a four-point scale, from 0 (no impact) to 3 (major impact). If the participants answer with minor, moderate or major impact, then it triggered the following open-ended question] "Could you please tell us in a few words how your work impacted your care responsibilities?"

Figure 2.1.1: Impact of care responsibilities by age groups (n=220)



Multivariate analysis: exploring the relationship between burnout, experiences of violence and caring responsibilities

Finally, this analysis uses a multivariate analysis to first, understand the extent to which sex, ethnicity, grade and age are related to burnout (Model 1), and second, to examine to what extent this is related to differences in experiences of violence (Models 2 and 3) and care responsibilities (Model 4). Burnout is considered as a pseudo-linear measure, and therefore the use of an Ordinary Least Square (OLS) multiple regression model is an appropriate first stage analytical approach. Coefficients are interpreted as the change in the burnout score, with a one-unit increase in selected variables, all other variables being held constant.

Model 1 does not provide a strong fit and suggests that sex is the only predictor that has a statistically significant effect on burnout. Being a man, compared to a woman, is associated with a decrease of 0.607 in the overall burnout score ($p<0.05$). As a result, no interaction terms for testing potential intersectional effects are added to this analysis. Model 2 adds the variable measuring experiences of violence from patients or relatives, and though the fit is weak, it is higher than Model 1. The results suggest that experiencing violence from patients or relatives is associated with an increase of 0.793 in the burnout score ($p<0.01$), while being a man continues to be associated with lower burnout ($p<0.01$). A potential moderation effect was considered (not presented) but suggested that the interaction between sex and experiences of violence from patients and relatives was not statistically significant.

Model 3, which adds experiences of violence from colleagues or managers, has a weaker fit than Model 2, but a slightly higher fit than Model 1. It also confirms that experiences of violence from colleagues or managers are associated with an increase of 0.108 in the burnout score ($p<0.01$), and being a man is associated with lower burnout ($p<0.01$). A possible moderation was examined (not presented) but suggested that the interaction between sex and experiences of violence from colleagues and managers was not statistically significant. Model 4 does not have a strong fit and shows that people who report an impact from their care responsibilities have an increase of 0.589 for each additional increment in the scale measurement ($p<0.01$). Including this factor, the effect of sex is no longer significant, but ethnicity and age become significant predictors of burnout experience. Being from a minoritised ethnic background, compared to be from a white background, is associated with a decrease of 1.022 in the burnout score ($p<0.01$). Similarly, each additional year of age is associated with a decrease of 0.031 in burnout ($p<0.05$), or equivalently 0.310 for each decade. Moderations were examined, and the first one – i.e., the interaction between ethnicity and impact of care responsibilities – was not statistically significant. The second moderation examined, however, suggested that the interaction between age and impact of care responsibilities was statistically significant ($p<0.05$). The coefficient (not presented) is positive, suggesting that the impact of care responsibilities on burnout increases with age.

Table 2.1.4: Regressing burnout scores on sex, ethnicity, grade and age (Model 1), experiences of violence (Models 2 and 3) and impact of care responsibilities (Model 4)

	Model 1			Model 2			Model 3			Model 4		
	β	SE	p	β	SE	p	β	SE	p	β	SE	p
Constant	6.913	.362	***	5.048	.400	***	5.828	.379	***	6.881	.625	***
Sex (ref: women)	-.607	.284	**	-.711	.266	***	-.756	.274	***	.312	.441	
Ethnicity (ref: white)	-.408	.258		-.259	.240		-.296	.247		-1.022	.336	***
Grade (ref: junior)	-.279	.225		-.112	.211		-.351	.216		-.242	.288	
Age	-.009	.009		-.009	.008		-.012	.009		-.031	.013	**
Violence from patients or relatives				.793	.093	***	.741					
Violence from colleagues and managers								.108	***			

Impact from care responsibilities							.589	.144	***
Adjusted R-square	.017		.170		.122		.133		
F-statistic	2.746	**	17.396	***	12.110	***	6.955	***	
n	406		400		400		195		

** p<0.05; *** p<0.

Conclusions and key points

Through this collaboration we have responded to RESISTIRÉ's research agenda in regard to their emphasis on deepening understanding on inequalities relating to health and healthcare. In particular, through our cooperation with the project we have added additional survey questions on the experiences of individuals with the impact that their work has had upon care responsibilities and their experiences of violence. By analysing this new data in line with demographic data gathered on sex and other characteristics, we have been able to provide evidence of the clear gendered and intersectional inequalities experienced by those working in healthcare.

While these data will be the subject of further analyses, our key take-aways from this are as follows:

- When controlling for other factors, women experience more burnout than men, but other variables such as ethnicity, grade or age are not statistically significant.
- Violence from patients and relatives has a stronger effect on increasing burnout than violence from colleagues and managers, though both are statistically significant.
- Sex does not moderate the relationship between experiences of violence and burnout.
- Perceived impact of care responsibilities is positively associated with burnout, and this effect increases with age.

2.2 COVID-19 Gender (In)equality Survey, Netherlands

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Funders	*ODISSEI, the Faculty of Social and Behavioural Sciences at Utrecht University and the Department of Public Administration at Radboud University Nijmegen*
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Update

This collaboration was set up in cycle two to address a lack of data and analysis on the gender pay and pension gap in the context of the pandemic, a gap which was identified in the research activities of the first cycle of RESISTIRÉ. The COVID-19 Gender (In)equality Survey Netherlands (CoGIS - NL) study is a longitudinal, representative and probability-based survey-study focusing on the national impact of the COVID-19 pandemic in terms of paid work, childcare and household tasks, as well as wellbeing. Researchers in the Netherlands leading CoGIS-NL collaborated with the RESISTIRÉ project to include a set of questions (presented in the figures below) on current and pre-pandemic perceptions of financial security in the sixth and final wave of the survey in April 2022, which enabled investigation of the long-term impact of the pandemic on pay and pensions from a gender+ perspective (see the second cycle report for further details about the CoGIS-NL study and establishment of this collaboration)[20]. The sample consists of 1,014 respondents.

The findings presented in this report consist of descriptive and inferential analyses. Following the RESISTIRÉ's gender+ approach, the descriptive analyses compare the answers to these questions across gender, education level, and migration background. In addition to the descriptive analyses, we ran a set of multivariate analyses to evaluate the effect of gender, migration background, and education on the ability to fulfil these financial security measures. We also looked into the probability of experiencing a positive/negative change in the ability to meet these measures between pre-COVID-19 evaluations and evaluations in April 2022. Informed by a gender+ perspective, we investigated the extent to which gender interacts with migration and educational background.[21] However, the analyses did not show any significant interaction effects.

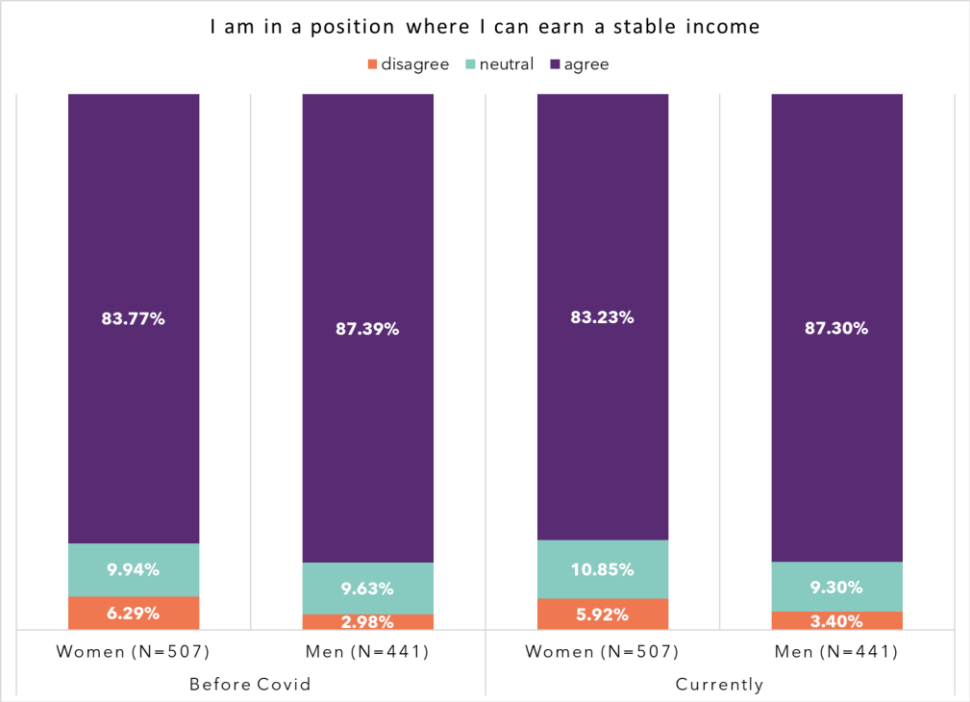
[20] Stovell et al., 2022.
[21] Stovell et al., 2022.

Descriptive Results

Ability to earn a stable income

Descriptive results show that, compared to men, a smaller share of women feel like they are in a position to earn a stable income both before COVID-19 and in April 2022.

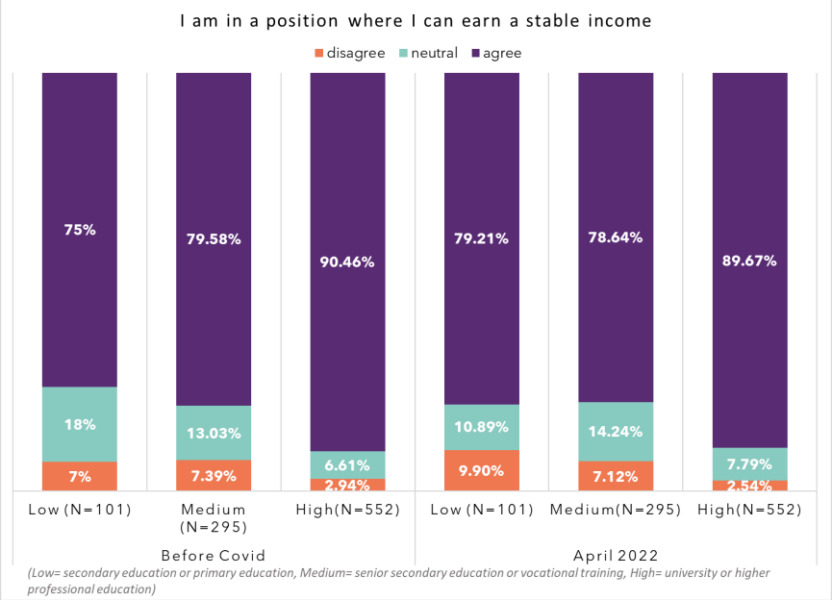
Figure 2.2.1 Ability to earn a stable income by gender.



Note: In April 2022, respondents from the CoGIS-NL study were asked to what extent they agree or disagree with the following statements, according to answer categories on a 7-point scale (completely disagree, disagree, somewhat disagree, neutral, somewhat agree, agree, completely disagree, not applicable): 1. Prior to the corona pandemic, I was able to: Earn a stable income with paid work or some other way. 2. Following the corona pandemic, in the next five years I believe I will be able to: Earn a stable income with paid work or some other way.

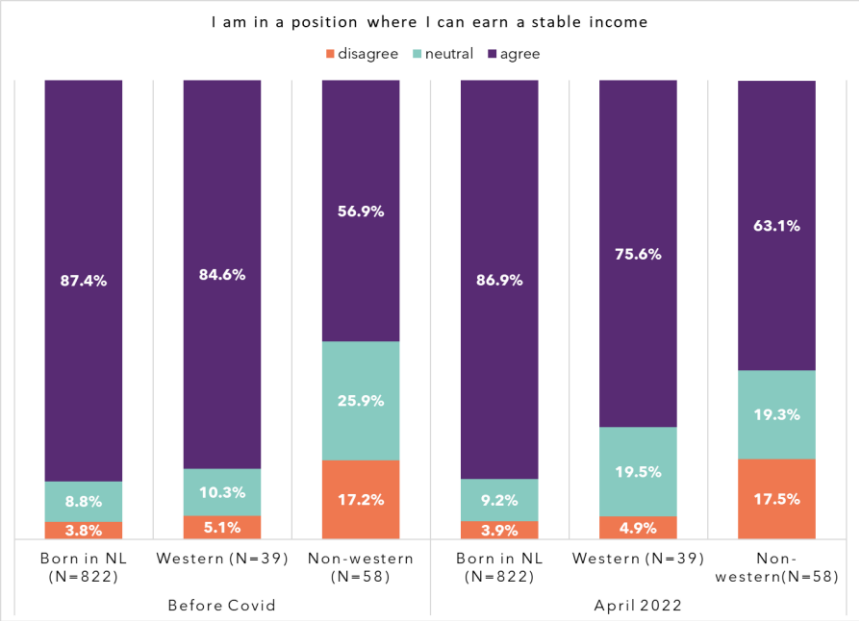
Across educational levels we see that the percentage of higher educated respondents who feel they are in a position where they can earn a stable income is considerably larger than the percentage amongst the medium and the lower educated. We also see no major differences in perceptions between pre-COVID-19 and April 2022. Only the percentage of lower educated respondents feeling like they are in a position to earn a stable income increased from 75% to 79%.

Figure 2.2.2 Ability to earn a stable income by educational level.



We find that migrants with a non-western background more often perceive that they are not in a position where they can earn a stable income compared to both migrants with a western background and individuals born in the Netherlands. A larger share of respondents with a non-western migration background (63%) felt like they were in a position where they could earn a stable income in April 2022 compared to before COVID-19 (57%). Reported ability to earn a stable income among migrants with a western background showed an opposite pattern. There were 85% who reported being able to earn a stable income before COVID-19 as opposed to 75% in April 2022.

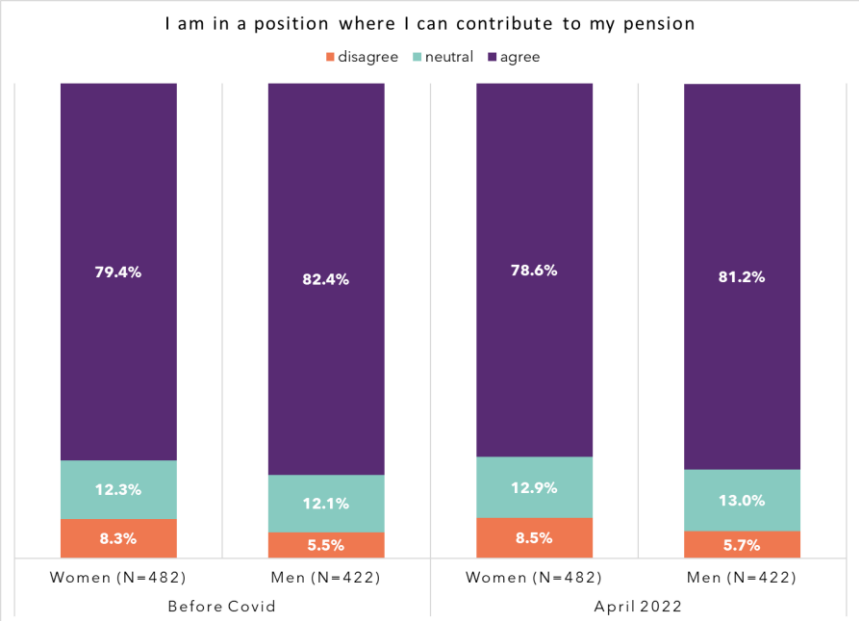
Figure 2.2.3. Ability to earn a stable income across migration backgrounds.



Ability to contribute to pension

The results show that 8.5% of women feel like they are not in a position where they can contribute to their pension compared to 5.5% of men. This difference remains practically unchanged between pre-COVID-19 perceptions and in April 2022.

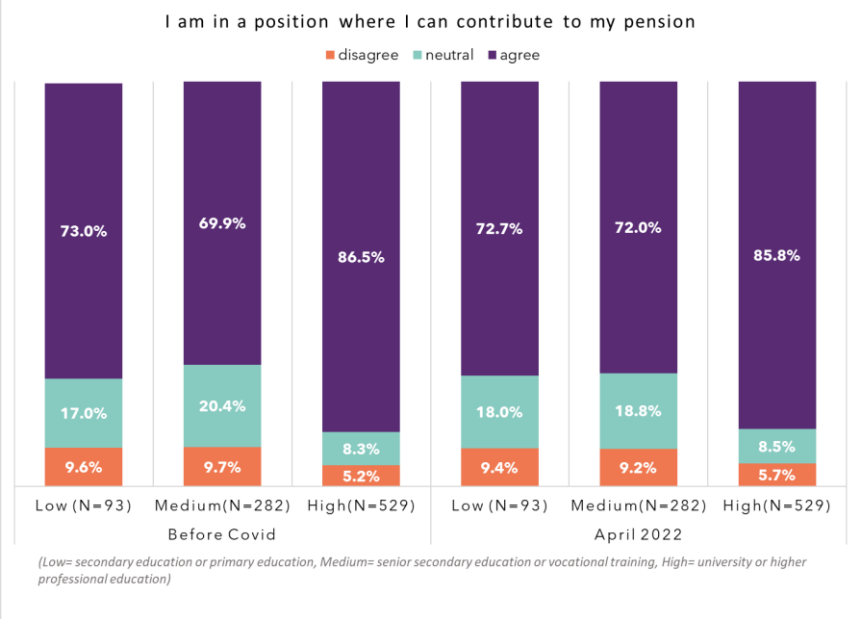
Figure 2.2.4. Ability to contribute to pension across genders.



Note: In April 2022, respondents from the CoGIS-NL study were asked to what extent they agree or disagree with the following statements, according to answer categories on a 7-point scale (completely disagree, disagree, somewhat disagree, neutral, somewhat agree, agree, completely disagree, not applicable): 1. Prior to the corona pandemic, I was able to: Contribute to an (occupational) pension and/or private pension funds. 2. Following the corona pandemic, in the next five years I believe I will be able to: Contribute to an (occupational) pension and/or private pension funds.

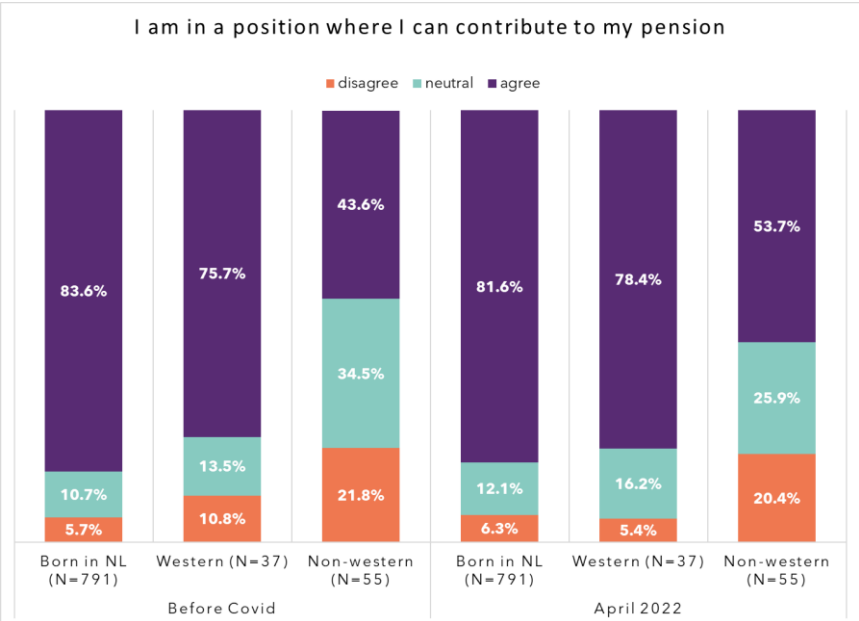
The perceptions of ability to contribute to pension are very similar amongst the lower and the medium educated, but with considerable differences to the higher educated. Higher educated respondents more often feel they are in a position where they can contribute to their pension compared to lower and medium educated respondents. The lower and medium educated more often feel they are not in a position where they can contribute to their pension. These differences are practically the same if we compare perceptions before COVID-19 and in April 2022.

Figure 2.2.5. Ability to contribute to pension across education levels.



We find large differences in the perceived ability to contribute to one´s pension between respondents with a non-western migration background on one side, and respondents born in the Netherlands and respondents with a western migration background on the other. Non-western migrants less often feel like they are in a position where they can contribute to their pension, although this percentage increased from 43% before COVID-19 to 53% in April 2022.

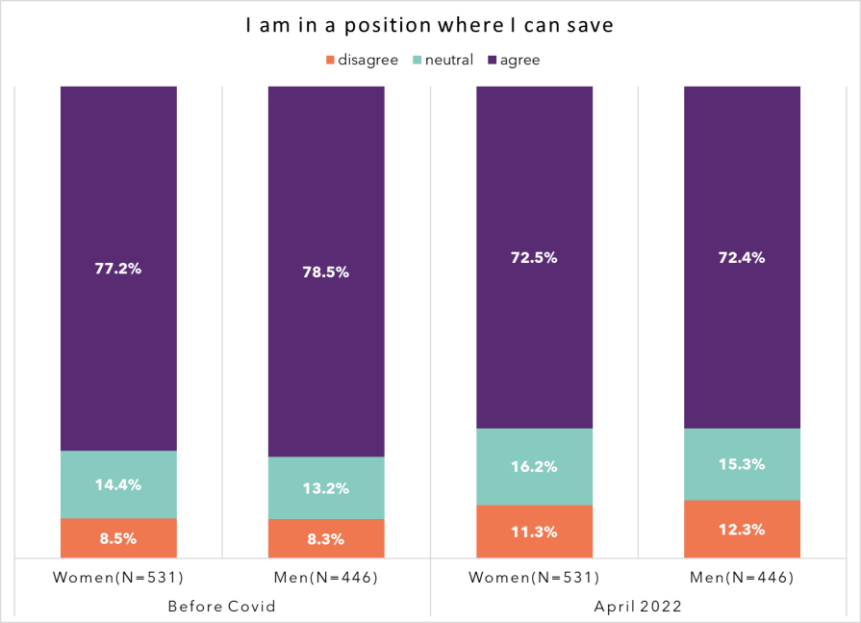
Figure 2.2.6. Ability to contribute to pension across migration background.



Ability to save

There are no large differences in the perceived ability to save between men and women both before the pandemic and in April 2022. Across both genders, the percentage of individuals feeling like they are in a position where they can save decreased by a similar amount from pre-pandemic perceptions to perceptions in April 2022.

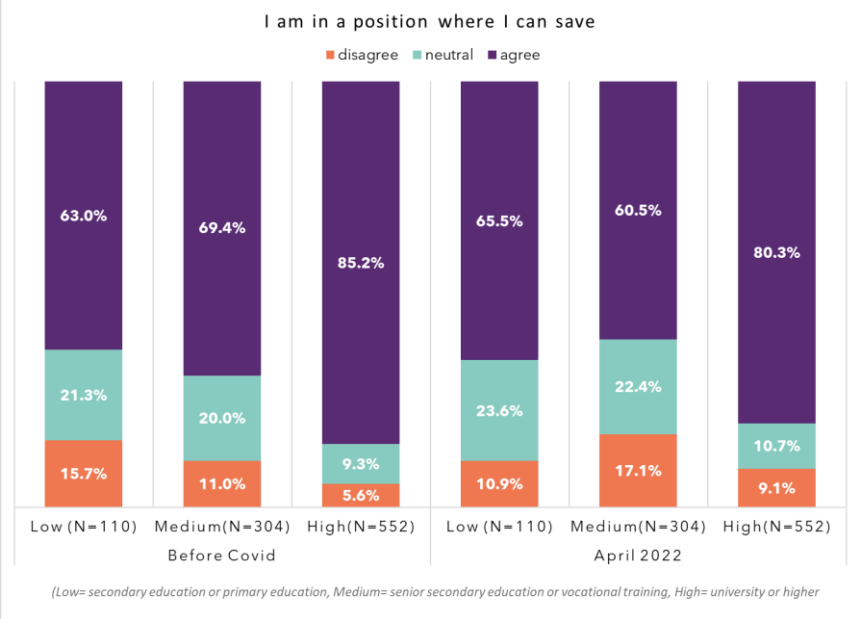
Figure 2.2.7. Ability to save across genders.



In April 2022, respondents from the CoGIS-NL study were asked to what extent they agree or disagree with the following statements, according to answer categories on a 7-point scale (completely disagree, disagree, somewhat disagree, neutral, somewhat agree, agree, completely disagree, not applicable): 1. Prior to the corona pandemic, I was able to: Save money. 2. Following the corona pandemic, in the next five years I believe I will be able to: Save money.

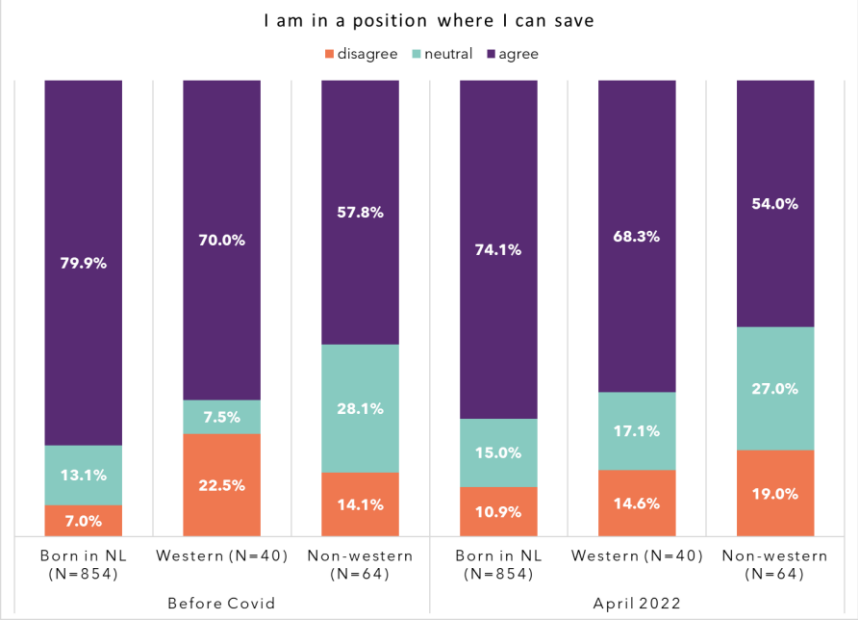
We find large differences in perceived ability to save between higher educated respondents on one side, and lower and medium educated respondents on the other. A considerably larger share of higher educated respondents feels like they are in a position where they can save, although this percentage decreased from 85% before COVID-19 to 80% in April 2022. We see an even larger decrease amongst medium educated respondents from 69% to 61%, and a slight increase from 63% to 65% amongst lower educated respondents.

Figure 2.2.8. Ability to save across education levels.



Migrants with a non-western background less often feel like they are in a position where they can save compared to migrants with a western background and individuals born in NL. Amongst all three groups, the percentage of individuals who feel like they are in a position to save is lower in April 2022 compared to before COVID-19.

Figure 2.2.9. Ability to save across migration backgrounds.



Results of multivariate analyses

Although the descriptive analyses show differences in these financial security measures

across gender, education, and migration background, the results of a multinomial logistic regression model show that keeping all other variables constant, migration background and education are the strongest and only significant predictors of the probability of being able to earn a stable income, contribute to one's pension, and save.

Gender

The analyses show that gender does not play a significant role in determining someone's ability to earn a stable income, contribute to their pension, or save. Even in a model only including gender as an explanatory variable, we found no significant effects. Additionally, we investigated whether gender moderates the effect of education level. These analyses showed no significant interaction effects, meaning that the negative relationship between having only lower education and the ability to earn a stable income, contribute to one's pension, or save, does not significantly differ between men and women. It is possible that the negative effect of having a non-western migration background differs between men and women. However, it was not possible to test for interactions between migration background and gender given the small number of respondents with a non-western migration background (N=46) and respondents with a western migration background (N=73).

Migration background

Holding gender and education constant, we find that, relative to respondents born in the Netherlands, respondents with a non-western migration background are:

- 30% less likely to feel like they are in a position where they can earn a stable income pre-COVID-19 and 23% less likely in April 2022.
- 40% less likely to feel like they are in a position where they can contribute to their pension pre-COVID-19 and 27% less likely in April 2022.
- 20% less likely to feel like they are in a position where they can save pre-COVID-19 and 18% less likely in April 2022.

Relative to being born in the Netherlands, we also find a significant negative effect of being a western migrant on the capacity to contribute to one's pension and the capacity to save relative to respondents born in the Netherlands. However, these effects are smaller compared to the ones of having a non-western migration background. Moreover, although non-western migrants are less likely to meet with these financial security measures both before COVID-19 and in April 2022, they are also more likely to experience a positive change in their position between these two periods. Specifically, they are 11% more likely to experience an improvement in their ability to earn a stable income, 12% more likely to experience an improvement in their ability to save, and 15% more likely experience an improvement in their ability to contribute to their pension relative to respondents born in the Netherlands.

Education Level

Holding gender and migration background constant, we find that, relative to higher educated respondents, lower educated respondents are:

- 18% less likely to feel like they are in a position where they can earn a stable income pre-COVID-19 and 14% less likely in April 2022.
- 17% less likely to feel like they are in a position where they can contribute to their pension pre-COVID-19 and 20% less likely in April 2022.
- 24% less likely to feel like they are in a position where they can save pre-COVID-19 and 15% less likely in April 2022.

We also find a negative effect of being middle educated relative to being higher educated. However, these negative effects are smaller than the negative effects of only having lower education. The results also show that lower educated migrants are 10% more likely to experience a positive change in their ability to save between pre-COVID-19 measures and April 2022.

Conclusion

Through this collaboration we have responded to RESISTIRÉ's research agenda and call for further understanding of intersectional gender differences in perceived income stability in the context of the pandemic. Results from the study confirm the existence of known inequalities in society: both before the COVID-19 pandemic and at the time of measurement (April 2022), higher educated respondents were better able than lower educated respondents to earn a stable income, to contribute to pensions and to save. Native Dutch and migrants with a western background reported similar advantages over migrants with a non-Western background.

While Dutch women receive lower pension payments and earn lower average incomes than Dutch men, suggesting the presence of both a gendered pension gap and a gendered pay gap, the results of this study suggest that these gaps do not translate into significant gender differences in the perception of being able to earn a stable income, to contribute to pensions and to save during the pandemic. Analyses of the combined effects of gender and education did not reveal any intersectional effects on respondent's ability to earn a stable income, to contribute to pensions and to save.

Overall, the study identified few changes in individual's capacity to earn a stable income, to contribute to pensions and to save money in April 2022 compared to pre-COVID. Two findings indicate that gaps in perceived income stability based on educational and migration background might have decreased slightly: (1) low educated respondents were more likely than medium and highly educated respondents to experience an improvement in their ability to save; (2) non-western migrants were more likely to experience an improvement in their ability to earn a stable income, to contribute to pensions and to save compared to native Dutch respondents. Overall, however, respondents reported minor differences in their perceived income stability between the two time points.

These results should be interpreted within the Dutch institutional and economic context

and in reference to the Dutch government's response to the COVID-19 pandemic. Prior to and during the pandemic, the Dutch economy performed strongly. The Dutch government was therefore capable of providing relatively strong employment protection during the pandemic. In the Netherlands, like many other European countries, primary employment protection consisted of a short-term work scheme (Noodmaatregel Ondersteuning Werkgelegenheid (NOW)). Under the NOW scheme, employers who expected to experience at least a 20% drop in turnover could apply for state aid in exchange for a moratorium on crisis-related lay-offs. Employees in firms participating in the NOW received their basic wages and continued to perform work duties as usual, when work was available. Consequently, the effects of the COVID-19 pandemic on unemployment were relatively limited.

As employment remained relatively stable, pension contributions, which are strongly linked to jobs in the Dutch context, were also stable. Employees continued to build future eligibility for state pensions, which are dependent on the number of years spent in paid dependent employment. Furthermore, workers contribute to their pension savings through occupational schemes, where contributions are deducted directly from gross salaries by employers. Ability to earn a stable income, to contribute to a pension and to save money are thus directly linked to employment levels. Within this context, it is difficult to explain the light improvement in financial stability reported by low educated workers and non-western migrants. Further research on this issue is needed, for example exploring the potential role of the growing labour shortage in the Dutch labour market.

2.3 Deustobarómetro Social, Spain

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Update

The collaboration was set up in cycle 2 to get a better understanding of the impact of telework on the lives of women and men and its relationship with the distribution of domestic and care tasks during COVID-19 lockdown, which contribute to research agendas of RESISTIRÉ (from cycles one and two) regarding telework and intersections of care and work. Deustobarómetro social is a project coordinated by the Deusto Team Social Values at the University of Deusto since 2013 and it is carried out by researchers affiliated with three different research teams (Deusto Social Values, Applied Ethics and Sociocultural Challenges). It focuses on economic, political and social welfare issues but has the flexibility to investigate issues of current interest (for more information about the survey see the second cycle report regarding the establishment of this collaboration).[22] Researchers in Deusto leading this study collaborated with the RESISTIRÉ project to include a set of questions to explore the challenges in the distribution of care responsibilities, the impact of this change on women workers' productivity and on their mental health from a gender+ approach in the Basque area. In May 2022, respondents from Deustobarómetro Social were asked questions on the following topics:

- Opinions on teleworking.
- Domestic work and its distribution in households.
- How the change in the distribution of household and care tasks made them feel.

In this survey, the sample consists of 1000 people (out of which 694 already responded to the survey in the previous wave) within the Autonomous Community of the Basque Country. For a confidence level of 95%, the margin of error of the sample is 3.08%. In terms of weighting, we have conducted cross-tabulations by sex and age, province, size of habitat and socio-economic level.

The results presented in this report are descriptive and build upon the pre-existing demographic questions within the survey by presenting intersectional analysis and discussion of the additional questions added to the survey through the collaboration, specifically regarding telework and productivity. This report analyses changes in the

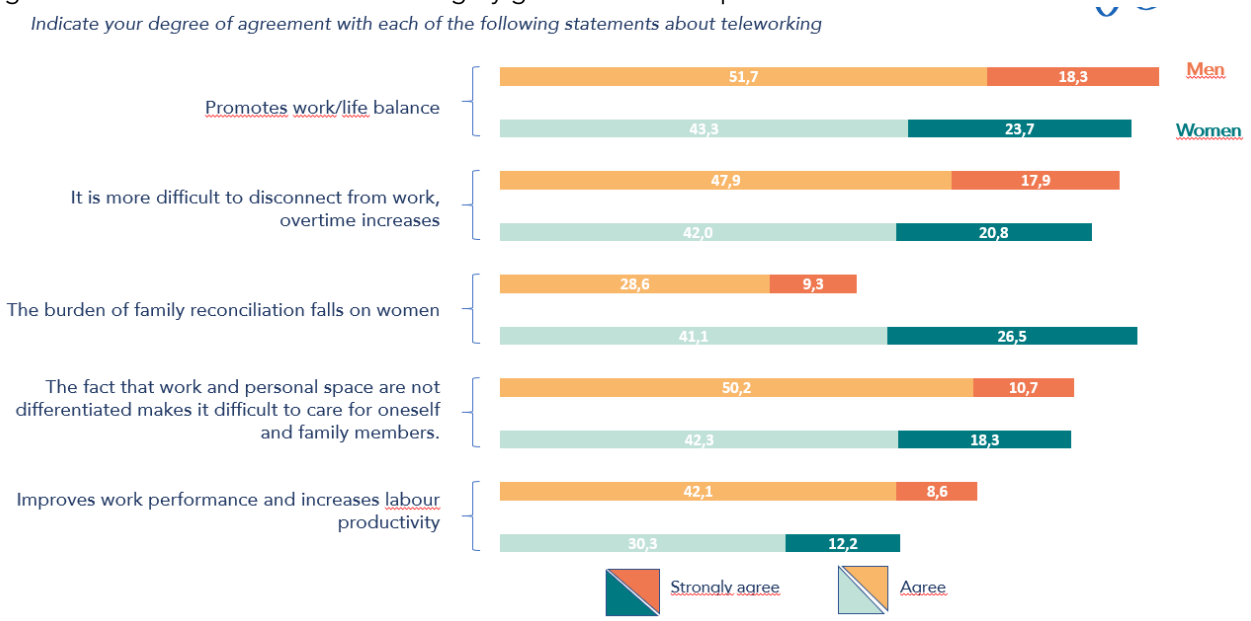
[22] Stovell et al., 2022.

ways in which women and men undertook responsibilities of care and the subsequent consequences of this upon their work life and health. Informed by a gender+ perspective[23] we investigated the extent to which gender and age provide any explanation for the impact of telework on the sharing of household tasks.

As a result of the collaboration, our analysis of the perception of telework has been deepened and this issue has been related to the distribution of domestic and care tasks in households during the pandemic, with the aim of analysing whether there are gender biases and whether telework could become another tool for perpetuating gender roles in the household and, therefore, have undesired effects on equality between women and men. Our hypothesis is confinement by COVID-19 and teleworking options have not changed the sexual division of labour and the traditional division of tasks between women and men, suggesting a greater overload for women.

Results

Figure 2.3.1. Assessment of teleworking by gender of the respondent



In general terms, both women and men rate teleworking quite favourably, but despite this agreement, there are differences in the ratings when we relate teleworking to work-life balance. A higher proportion of men than women agree that teleworking favours work-life balance. Where a difference is most noticeable is in the assessment that teleworking places the burden of family reconciliation on women, with a very high degree of agreement among women (67.6% of women), compared to men (only 37.9% of men). However, men are more likely than women to agree that teleworking not only increases overtime and makes it more difficult to switch off, but also improves work

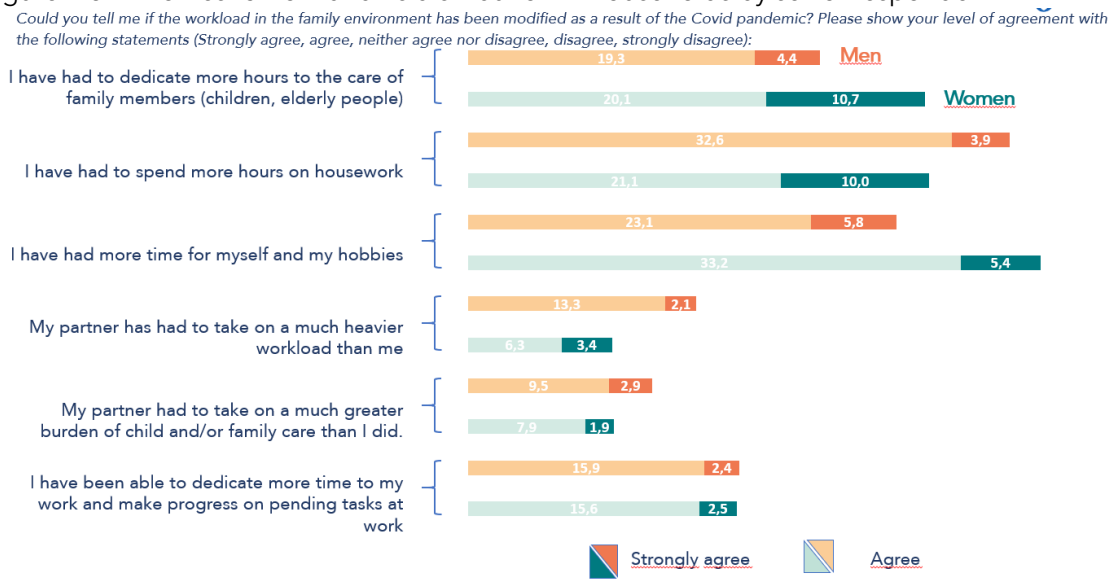
[23] Stovell et al., 2022.

performance and increases productivity. Women and men show similar levels of agreement that teleworking has a pernicious impact on caring tasks (both self-care and care for others) if work and personal space are not separated.

Age.

If we look at the age of the people surveyed, we see that, despite the fact that the majority of the population tends to agree with the statements on the impact of teleworking on work-life balance, it is the younger population, aged 18 to 24 years old, - irrespective of gender – who agree most with all the statements (with percentages of around 70% agreement). This is however not the case regarding the statement that teleworking aggravates women's work-life balance problems, where the younger population disagrees the most and the population over 65 years of age is the one who agrees the most with this statement (10.3% of the younger population compared to 70.9% of the older population).

Figure 2.3.2. Domestic work and its distribution in households by sex of respondent



We now look in more detail at the impact that teleworking has had on the sharing of domestic and care work in the home between women and men during the COVID-19 pandemic. We note that only 38.6% of women report that teleworking during the pandemic allowed them more time for themselves and their hobbies, but it is surprising that this percentage is higher than the response from men, with only 31.1% saying so. One possible explanation may be that men's hobbies are mostly located outside the home and that telework in the COVID-19 context was not the most favourable environment or time to develop them. This might also suggest that confinement and working from home might have led men to become more involved in the domestic and care work.

Women show a very high level of disagreement when asked whether their partner took

on more of the domestic work or childcare burden during the pandemic. On this point, the levels of agreement among women do not reach 10%. The level of agreement with these statements among men is not very high either, but somewhat higher than among women.

In terms of caring and household chores, 30.8% of the women respondents reported that they had to spend more hours caring for family members and 31.1% said that they had to spend more hours doing household chores. Interestingly, 36.5% of men respondents reported that due to the pandemic they had to dedicate more hours to household chores, however only 23.7% of men respondents reported that they increased hours for childcare.

A similar proportion of men (18.3%) and women (18.1%) said that they have been able to spend more time at work and to make progress on pending work tasks thanks to teleworking. In general, the majority of the population disagreed with the idea that COVID-19 would introduce changes in the division of tasks, with a higher proportion of young people aged 18 to 24 years old disagreeing the most.

Figure 2.3.3. COVID-19 and degree of change in the distribution of domestic and care tasks in many households (in case of change: harmful or beneficial).

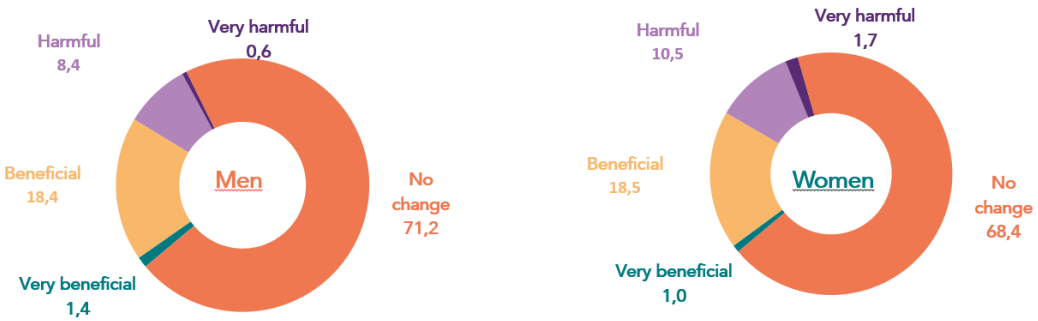


Figure 2.3.3 shows that for many women (68.4%) and men (71.2%) the COVID-19 pandemic has not led to a change in the distribution of domestic and care tasks in their respective households. This suggests that the main domestic and care tasks have continued to fall on Basque women, a fact that is supported in the literature by the organisation Emakunde who argue that work-life balance is highly feminised and women spend more time than men on domestic and care tasks.[24] Furthermore, our findings show that while teleworking and confinement measures have placed women and men at home, this has not necessarily led to challenging the distribution of domestic and care tasks. In fact, if change has occurred, for 10% of women in this study it has been harmful,

24 Emakunde, 2021. Gizon Duz Initiative Report 2021. Accessed here: https://www.emakunde.euskadi.eus/contenidos/informacion/gizonduz_memoriak/eu_def/adjuntos/G_2021_EN.pdf (Last accessed 27/02/2023).

demonstrating that in some instances the burden of domestic and care responsibilities has increased for women. In terms of age, the degree of disagreement is higher among the population, with the highest level of disagreement among the young population aged 18 to 24. This suggests that the division of tasks during confinement has not changed amongst this younger group.

Figure 2.3.4. How did this change in the distribution of household and care tasks make you feel? Mark all that apply

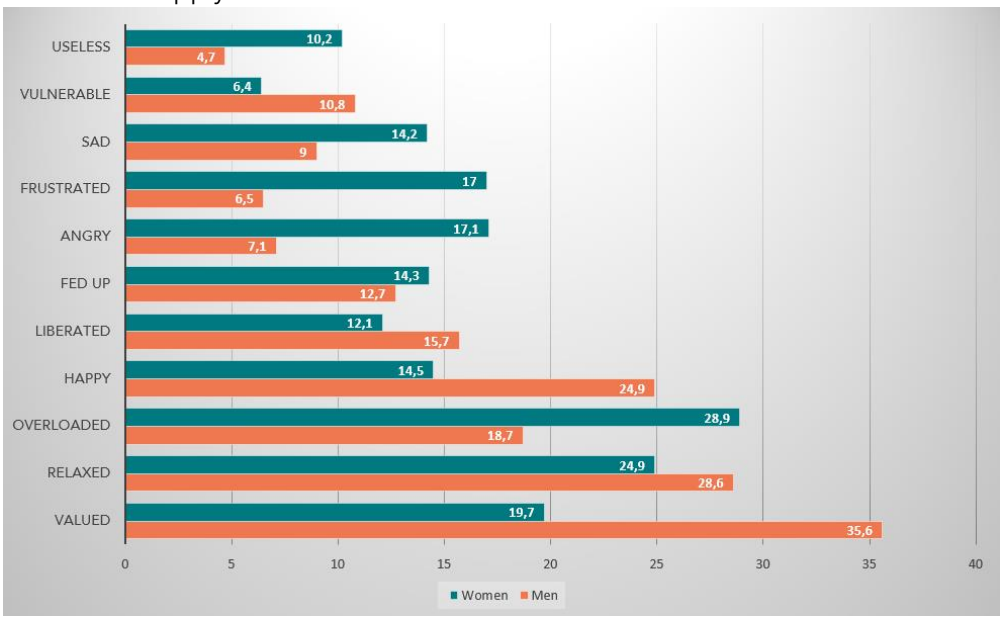


Figure 2.3.4 shows how women and men felt in relation to a change in the distribution of domestic and care tasks. While men felt mostly valued (35.6%) and relaxed (28.6%), the most frequently mentioned feeling among women was that of being overloaded (28.9%). Among women there is a higher presence of negative feelings than among men (anger, frustration or sadness were more present among women than men).

Age.

Compared to other age groups, a higher proportion of young people aged 18-24 years old, reported feeling happy (25.8%), but also overburdened (25.4%). The population aged 25-34 felt mostly fed up (27.1%) while people aged 35-44 felt relaxed (28.2%) but also overburdened (26.5%). The population aged 45-54 felt valued (28.4%), overloaded (28%) and relaxed (27%) almost equally, while the population aged 55-64 felt valued (44.2%), one of the highest proportions. The population aged 65 and over also felt valued, relaxed and happy at the same time.

We have analysed the questions taking into account the incidence of social class and level of education and, descriptively, we can highlight the following issues:

The impact of social class on the perception of the impact of telework on work-life balance and the sexual division of labour is significant in the following cases:

- The majority of the population, depending on their level of purchasing power, agree with the idea that teleworking favours work-life balance. The level of agreement is higher among the upper classes (75.3% strongly or somewhat agree that teleworking has a positive impact on work-life balance, compared to 62.1% in the lower classes).
- The upper classes tend to disagree with the statement that teleworking exacerbates women's workload, but the middle or lower classes do agree that women's workload is overloaded.
- The upper classes say that they have had to dedicate more hours to housework as a consequence of COVID-19, but this does not coincide with the assessment of the lower classes, who did not see an increase in housework.
- The upper, middle and lower classes felt valued as well as overburdened as a result of the distribution of tasks during COVID-19 confinement.

The role of educational level on the perception of the impact of telework on work-life balance and the sexual division of labour is shown to be significant in the following cases:

- While the majority of respondents agree with the idea that teleworking favours work-life balance, the level of agreement is higher among the more educated population.
- People with higher levels of education are less likely to agree that telework is mostly beneficial for females. Their level of agreement is only 45.9%, compared to the levels of agreement of the population with less education, with values above 50%.
- People with higher levels of education tend to think that teleworking increases productivity, whereas people with lower levels of education do not agree so much.
- Regardless of the level of education, for the majority of the population COVID-19 has not led to a change in the distribution of domestic and care tasks in households.
- The more educated population felt both overburdened and valued. The less educated population felt valued and relaxed.

Conclusion

Through this collaboration, we have contributed to RESISTIRÉ's research agenda and call for further understanding of the gendered impact that teleworking in the context of COVID-19 has had on the traditional distribution of gender roles in domestic and care tasks. From a gender perspective, the perception of telework is different and the gender+ lens allows us to confirm the rigidity of this division of labour and how it perpetuates gender inequality at the intersections of work and care.

According to our study, men perceive the impact of telework more in relation to their performance and productivity while they seem to be blind towards the impact it has on women's tasks within the home that have negatively affected their work-life balance. However, women are much more aware of this unintended and undesired impact.

Telework did not allow for increased time for self-care or hobbies, nor did it guarantee progress on unfinished work tasks. Likewise, it does not appear that teleworking in the pandemic significantly increased women's and men's domestic and caring tasks, with most disagreeing with these assertions. This might suggest that the pandemic has not challenged the traditional unequal gender division of domestic and childcare duties which seems to have persisted and, in some cases, it has been aggravated at the expense of women.

Although both men and women spent considerable hours at home, many of them teleworking, this new situation did not alter the feminisation of domestic and care tasks. And when respondents experienced change in these tasks, men tended to feel valued and relaxed while women felt overburdened. If we look at age, we observe that, the older the population is, the greater the feeling of valuation, while among the younger population, overload and weariness prevail. Our survey data reinforce previous studies[25] which underline the difficulty of altering traditional gender roles in the distribution of domestic and care tasks, even in situations where the presence of women and men in the household has changed, as was the case with the increased male unemployment rate at the beginning of the financial crisis in 2007, which did not lead to women taking on greater responsibilities in the household.[26]

In the future, and as an outcome of this collaboration the DBS will continue to be flexible to introducing new questions in the survey and analysing findings from a gender+, intersectional lens.

[25] González, M., y Cuenca, C. (2020). Pandemia sanitaria y doméstica. El reparto de las tareas del hogar en tiempos del COVID-19. Revista de Ciencias Sociales (Ve), XXVI (4), 28-34; Pateman, C. (1988). Social Contract, Cambridge: Polity Press; Solanas, M. (2020). Feminismo para el siglo XXI. Política Exterior (34), 197, 122-130.

26 Beteta Martín, Y. (2013). La feminización de la crisis financiera global. La regresión del estado de bienestar en España y su impacto en las políticas de igualdad y de erradicación de la violencia contra las mujeres. Nuevos retos. Asparkía: investigació feminista, n.º 24, pp. 36-52, https://raco.cat/index.php/Asparkia/article/view/292173; Kushia, S., & McManusb, I. P. (2018). Gender, Crisis and the Welfare State: Female Labor Market Outcomes across OECD Countries. Comparative European Politics.

2.4 Transcare, Belgium

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Contacts	*Andreas Koehler* *Timo Nieder* *Joz Motmans*

Introduction

This new collaboration was set up in cycle three and aims to address two research gaps identified in the RESISTIRÉ research agenda of cycle 1: How can access to transition-related healthcare and other care arrangements to address the needs of LGBTQI+ people be ensured during crises like the COVID-19 pandemic? How are non-urgent medical procedures defined and what does this mean for treatments linked to transitions?

The TransCare COVID-19 survey is a cross-sectional international study developed by a team of researchers (Andreas Koehler, Timo Nieder and Joz Motmans) in cooperation with local healthcare providers and community members. The web-based survey was first developed in German and, in cooperation with 23 community organisations, translated into 26 other languages, capturing responses across 80 countries. The data collection started in May 2020 and finished in January 2021.

The aim of the survey was to investigate the effects of the COVID-19 pandemic on healthcare for transgender individuals. This work closely aligns with RESISTIRÉ's focus on the consequences of COVID-19 in relation to health inequalities from an intersectional perspective including gender identity. To address the research gaps, the analysis conducted by the TransCare COVID-19 team as part of this collaboration consists of two parts. The first part is a descriptive analysis of barriers to trans healthcare. The second part focuses on the analysis of two open-ended questions included in the survey relating to the services that respondents would like to see from the (trans) health providers in their country and from the local (trans) health organisations in this current pandemic situation (Q100 and Q101; see Appendix 2.4.1 for specific question wording).

Results

Sample description

The final sample only includes respondents that indicated that they live in Europe (N = 4036). For an overview of all the relevant socio-demographic background variables, see Table 2.4.1.

Table 2.4.1. Background characteristics of the respondents included in the analyses (N, %)

Name	Frequency (N)	Valid percentage (%)	Options within analysis
Nationality	European: 4036 Non-European: 1413	European: 74.1 Non-European: 25.9	Only European respondents were included in the sample
Sex assigned at birth (SAAB)	Female: 2335 Male: 1662	Female: 58.4 Male: 41.6	Female Male
Gender identity groups	Binary: 3154 Non-binary: 852	Binary: 78.7 Non-binary: 21.3	Transgender (binary) Gender diverse/non-binary
Sexual minority	Yes: 3445 No: 508	Yes: 87.1 No: 12.9	No Yes
Relationship status	Single: 2040 In a relationship: 1738	Single: 54.0 In a relationship: 46.0	Single In a relationship
Educational level	Basic: 1232 Advances: 2516	Basic: 32.9 Advanced: 67.1	Basic educational level Advanced educational level
Class	LMU: 184 High: 3852	LMU: 4.6 High: 95.4	Lower-middle-upper income economy (LMU) High-income economy
Person of Colour (PoC)	Yes: 290 No: 3614	Yes: 7.4 No: 92.6	No Yes
Disability	Yes: 2171 No: 1265	Yes: 63.2 No: 36.8	No Yes
Religious minority	Yes: 560 No: 3316	Yes: 14.4 No: 85.6	No Yes
	Mean (M)	Standard deviation (SD)	
Age	31.0	12.4	Age in years

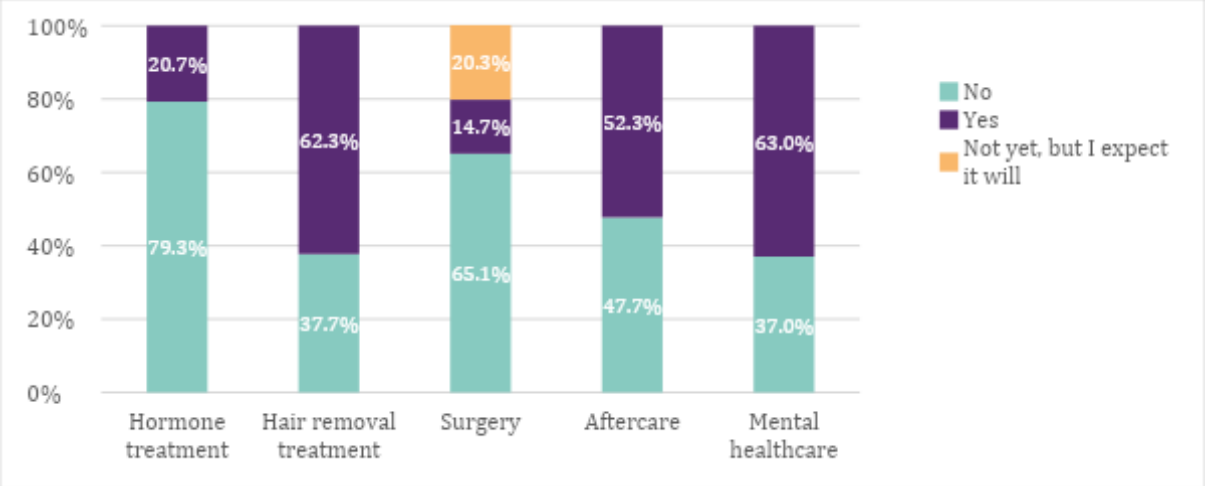
One in five respondents identify as gender diverse/non-binary/genderqueer/agender/ polygender/gender-fluid (n = 852, 21.3%), while 78.7% identify as a binary transgender person (n = 3154). Two out of three respondents have an advanced educational level (tertiary education) (n = 2516, 67.1%), while 32.9% have a basic educational level (primary/secondary education) (n = 1232).

The variable class is based on the World Bank Classification, where almost all respondents live in a high-income economy (n = 3852, 95.4%), while 4.6% live in a low, lower-middle, or upper-middle economy (n = 184). Respondents also needed to indicate if they belonged to any of the following minority groups: sexual minority (gay, bisexual, lesbian, queer, asexual, etc.), person of colour, religious minority, or minority due to ability status. Almost nine out of ten respondents indicated that they belong to a sexual minority (n = 3445, 87.1%), almost one out of ten responded that they are a person of colour (n = 290, 7.4%), 14.4% indicated they belong to a religious minority (n = 560), and two out of three respondents have a chronic illness or disability (n = 2171, 63.2%). Overall, the sample has an overrepresentation of younger respondents.

Part 1. Experiences with healthcare (restrictions due to COVID-19)

Access to the different types of healthcare, as mentioned in the previous paragraph, were first analysed separately to provide an overview of restrictions per type of healthcare. Every respondent that indicated to have received some type of treatment needed to indicate if this type of treatment has been restricted due to the COVID-19 outbreak (see Appendix 2.4.1 for specific question wording of Q33, Q36, Q38, Q42, and Q48).

Figure 2.4.1. Restricted access to different types of treatment during the COVID-19 outbreak (%).



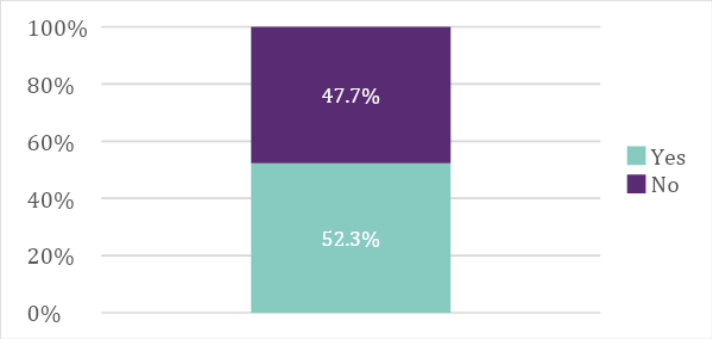
Of all respondents that indicated they have received hormone treatment (N = 2415), two out of ten respondents indicated that their access to hormones has been restricted due to the current COVID-19 outbreak (n = 501, 20.7%). Of all respondents that indicated they have undergone hair removal treatment (N = 812), six out of ten respondents

indicated that their access to hair removal treatment has been restricted due to the COVID-19 outbreak (n = 506, 62.3%). Of the respondents that indicated they have planned at least one type of surgery (chest surgery, genital gender-affirming surgery, Adams apple surgery, voice surgery, and/or facial surgery) in the near future (N = 2350), one in seven respondents indicated that their access to the surgery has been restricted due to the COVID-19 outbreak (n = 245, 14.7%). Also 20.3% mentioned that they have not experienced any restrictions to surgery, but that they expect it will become restricted (n = 476). Of all the respondents that indicated having already undergone one type of surgery (chest surgery, genital gender-affirming surgery, Adams apple surgery, voice surgery, and/or facial surgery) (N = 444), more than half indicated that the COVID-19 outbreak has affected aftercare of a recent surgery (n = 232, 52.3%). Of the respondents that indicated having consulted a mental health professional (N = 1545), six out of ten respondents indicated that their access to their mental healthcare professional is restricted due to the current COVID-19 outbreak (n = 973, 63.0%).

Restricted access to healthcare indicator

The above-mentioned variables (Q33, Q36, Q38, Q42, and Q48) were used to compute a variable that measures if someone had their access to healthcare restricted due to the COVID-19 outbreak. The distribution of this variable was the following:

Figure 2.4.2. Restricted access to healthcare (%)



Note: If a respondent answered 'Yes' to Q33, Q36, Q38, Q42, and/or Q48, indicating that their access to one of these treatments has been restricted due to the COVID-19 outbreak, the respondent was re-coded to a 1 (Yes) on the variable, otherwise the respondent was re-coded to a 0 (No). Respondents with missing values on all of the questions are excluded from further analyses

More than half of the trans and gender diverse respondents indicated that access to at least one type of healthcare was restricted during the COVID-19 outbreak (n = 1912, 52.3%).

A backwards logistic regression analysis was applied to find a model that best explains/predicts restrictions in access to healthcare. First, all the background variables (SAAB, gender identity groups, sexual minority status, relationship status, educational level, class, PoC, disability status, religious minority status, and age) were taken together in one model. The best model included four variables predicting significant differences in restrictions in access to healthcare: SAAB, educational level, class, and disability status.

Table 2.4.2. Regression analyses for restricted access to healthcare (odds ratio coefficients)

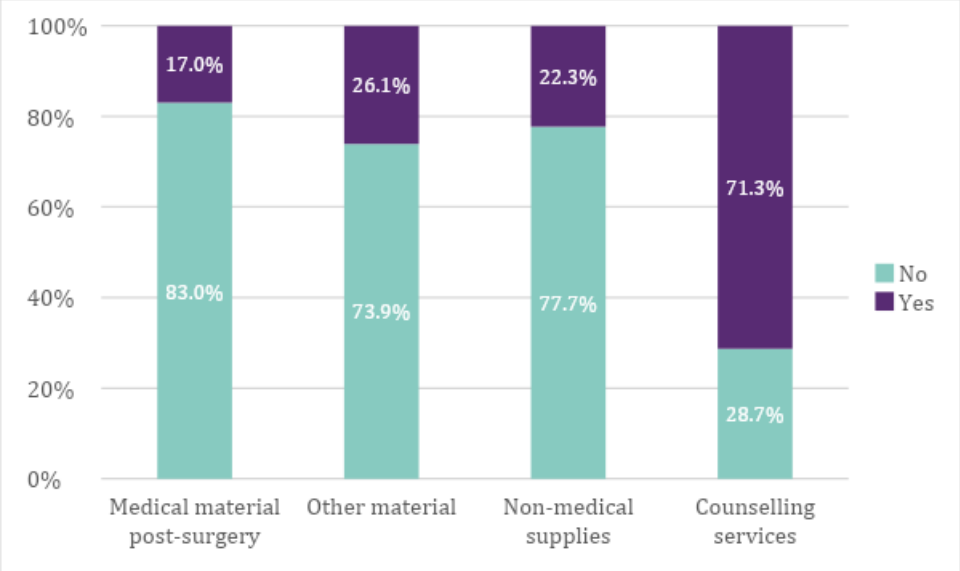
Variable	Exp(B)	p-value	95% CI for Exp(B)
SAAB (male)	0,498	<.001	[0.42, 0.57]
Educational level (advanced)	1,188	.035	[1.02, 1.41]
Class (high income)	0,583	.008	[0.41, 0.90]
Disability (yes)	0,508	<.001	[0.44, 0.61]

It appears that the COVID-19 outbreak was especially disadvantageous for respondents with a male sex assigned at birth, for respondents with a basic educational level, for respondents living in high-economy countries, and for respondents with a chronic problem, illness or disability.

Limitations in access to other aspects of trans healthcare

Limitations to other aspects of trans healthcare during the COVID-19 outbreak were assessed as well. The following aspects of trans healthcare were measured: medical material that is important after surgery, other material, non-medical supplies, and counselling services (see Appendix 2.4.1 for specific question wording of Q44_1, Q44_2, Q44_3, and Q44_4). See Figure 2.4.3 for an overview of restricted access per aspect of trans healthcare.

Figure 2.4.3. Restricted access to other aspects of trans healthcare during the COVID-19 outbreak (%).



Note: Three answer options were provided for every aspect of healthcare, which indicated if a respondent experienced restricted access to the specific type of healthcare: 'Yes', 'No', and 'I do not use them'. Since we are only interested in respondents who made use of these materials and services, we dropped from the analysis those who selected the answer

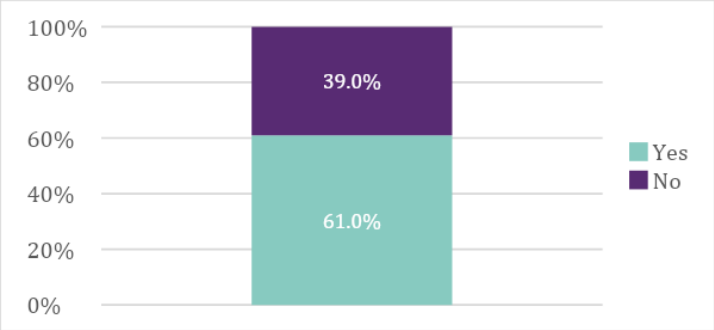
category 'I do not use them'. This results in a different sample for each of the questions (the total N for each item is reported). The four questions were first analysed separately to be able to provide an overview of limitations per type of trans-specific healthcare.

Of all respondents that indicated needing medical materials post-surgery (N = 641), one in six respondents indicated that their access is limited due to the COVID-19 outbreak (n = 109, 17%). Of the respondents that use other materials (e.g., binders, packing material) (N = 1790), over one in four respondents indicated that their access is limited due to the current COVID-19 outbreak (n = 468, 26.1%). Of all respondents who use non-medical supplies (e.g., make-up, shaving supplies, wigs) (N = 2555), over one in five respondents indicated that their access is limited due to COVID-19 (n = 571, 22.3%). Of the respondents that indicated using counselling services (e.g., peer-to-peer counselling) (N = 2490), seven out of ten respondents indicated that their access has been limited due to the COVID-19 outbreak (n = 1776, 71.3%).

Restricted access to other aspects of trans healthcare indicator

The above-mentioned variables (Q44_1, Q44_2, Q44_3, and Q44_4) were used to compute a variable that measured limited access to any of the mentioned trans-specific healthcare aspects due to the current COVID-19 outbreak. The distribution of this variable was the following:

Figure 2.4.4. Restricted access to healthcare (%)



Note: If a respondent answered 'yes' on any of the above items, the respondent was re-coded to a 'Yes' on Limited access (to trans-specific healthcare due to the COVID-19 outbreak) and if the respondent answered 'no' on any of these items, it was re-coded to a 'No'. Respondents with missing values on all of the questions are excluded from further analyses.

We see that over six out of ten trans and gender diverse respondents indicated that at least one type of trans-specific healthcare was restricted to them due to the COVID-19 outbreak (n = 2103, 61%).

A backwards logistic regression analysis was applied to find a model that best explains/predicts restrictions in access to other aspects of trans healthcare. First, all the background variables (SAAB, gender identity groups, sexual minority status, relationship status, educational level, class, PoC, disability status, religious minority status, and age) were taken together in one model. After eight iterations, a model was found that could best explain/predict limited access, including three significant variables: sexual minority status, disability status, and age.

Table 2.4.3. Regression analyses for restricted access to other aspects of trans healthcare (odds ratio coefficients)

Variable	Exp(B)	p-value	95% CI for Exp(B)
Sexual minority status (yes)	0,453	<.001	[0.36, 0.58]
Disability (yes)	0,565	<.001	[0.48, 0.67]
Age	0,984	<.001	[0.98, 0.99]

It appears that the COVID-19 outbreak was especially disadvantageous for respondents belonging to a sexual minority (LGB+), for respondents with a chronic problem, illness or disability, and for younger respondents.

Part 2. Access to services from (trans) health providers and organisations

Two open-ended questions were included in the survey relating to the services respondents would like to see from the (trans) health providers/local (trans) health organisations in the current situation of the COVID-19 outbreak (Q100 and Q101). Out of the 4036 respondents in the total sample, 1567 respondents answered Q100 and 998 respondents answered Q101.

To analyse a sample that is large enough to represent the total trans and gender diverse sample, a random sample was taken from both questions, translated and coded. A random sample of Q100 and Q101 was analysed. In total 160 responses from Q100 were analysed, and 154 responses from Q101 were analysed. From these translations, the most common answers were grouped and used to draft up results. The analyses of both questions were then combined to address the needs of trans and gender diverse respondents. Five themes arose from the analyses such as e-health/online help, counselling support, financial support, education, and low-threshold medical accessibility, with the latter two themes mostly applying to what kind of services respondents would like to see from their (trans) healthcare providers.

Five themes arose from the responses:

E-health / online help

One of the solutions that many respondents put forward was the need to shift mental

health consultations to online/telephone appointments. Not only was online help mentioned for counselling, but also for follow-up, crisis management, or anxiety due to isolation during the COVID-19 outbreak. Respondents living in rural areas mentioned that it is hard to get to a nearby city for treatment, especially during COVID-19, but also before the outbreak, and that help via telephone and/or chat would help trans and gender diverse people living outside of cities to feel less isolated.

Many participants also mentioned that they would like advice and help from their local (trans) health organisation by telephone and/or chat. Especially due to COVID-19, many mentioned that they would like the existing healthcare possibilities to be expanded via telephone/chat while they are increasingly needed. Professional online support groups were also frequently mentioned as well as the wish to have video-call based mental health support services. Online mental support was not the only assistance suggested by the participants. The help of the local health organisation in providing hormone prescriptions online and in providing information on how to inject safely was also often mentioned. An online platform for trans and gender diverse people was suggested as well, with information, tips and ideas about everyday life, as well as a forum for trans and gender diverse people to vent or write down anything for people to respond to. Online chat groups especially for trans and gender diverse people, or the possibility to get a support call from the local trans organisation, was also a recurrently suggested option.

Counselling support

Many respondents reported counselling as necessary in this current situation. Some mentioned that they would like to see this counselling from trans* organisations, or healthcare providers that are educated with transgender topics and are understanding. It should also be low-threshold (accessible) and not expensive. Especially during the COVID-19 outbreak, respondents got the impression that their mental health providers were busy with the outbreak and not following up on their needs, cancelling/postponing appointments, and not seeing the necessity of the counselling.

In relation to the COVID-19 pandemic and in relation to e-health, most respondents mentioned that their local (trans) health organisation should acquire technical knowledge about providing help online. In this way, treatments can be maintained and guaranteed during lockdown periods. Overall, more mental health support was frequently asked for, especially since trans and gender diverse people have multiple characteristics to take into account (environmental characteristics - family, friends, society, etc., but also physical characteristics, and other possible comorbidities). The desire for more mental health counselling goes hand in hand with the desire that these treatments be more affordable or reimbursed. Especially in countries where waiting lists are already quite long, extra mental health support is required.

Financial support

Respondents reported various options on how to provide financial help in the best way, in the current situation of the COVID-19 outbreak, but also in general. Among the options were: state vouchers for various trans-specific services, making hormones more

affordable, making trans-specific healthcare publicly available and not only privatised, pay instalments for those who cannot afford it, receiving insurance or financial compensation for surgeries and hormone replacement therapy (HRT), free psychotherapy, centres financed by the healthcare system/government, etc. Multiple participants mentioned specific treatments that they would like to see reimbursed: laser therapy, hormone treatment, specific surgeries, etc. When mentioning e-health, participants also mention that this type of treatment could be cheaper than offline treatments. Economically vulnerable people (for example those unemployed, homeless, and/or people dealing with poverty) should get more reimbursement. Also, people with unstable family situations (for example being disowned or rejected by family because of their gender identity) should get more financial help. Respondents asked for a case-by-case approach, where people get financial help depending on their economic situation. Also paying taxes but not getting trans-specific treatments reimbursed does not feel fair to many respondents.

Education for healthcare providers

Many respondents mention education for healthcare providers as an important aspect that could be further improved. Medical knowledge about trans-specific issues is not included enough in educational curricula for healthcare providers in general, leading to a bigger impact of a lack of knowledge during the COVID-19 outbreak. Healthcare providers not belonging to the trans and gender diverse community themselves should receive much more information and advice when treating trans and gender diverse people. Healthcare providers that perform physical examinations especially should be better trained in how to address trans and gender diverse people properly. A non-pathologising and non-psychiatric approach is desired by many and especially healthcare providers working in the psycho-medical-social sector should exchange good practices within a network of healthcare providers. Education should not only be given to trans-specific healthcare providers, all healthcare providers (e.g., in oncology, GPs, gynaecologists, etc.) should be informed about trans and gender diverse topics, since trans and gender diverse people need regular check-ups just like cisgender people. These educational efforts should also reach smaller universities/colleges/healthcare centres.

Low-threshold medical accessibility

Many participants mention that they experience problems when trying to access healthcare services. These experiences arise when trying to access general healthcare, as well as trans-specific healthcare. When discussing access, two themes arose from the answers of the respondents: waiting lists, and informed consent.

- Waiting lists

A lot of participants mentioned long waiting lists when trying to access trans-specific healthcare. Their wish for trans healthcare providers is to shorten the waiting lists by simplification of the system in general, revised treatments without pathologising elements, more emphasis on self-identification, more centres to get help from, getting access to hormones through a GP, informed consent, etc. Participants also mentioned a

need for information about what affects these waiting lists, if COVID-19 will have an impact on waiting times and if so, how large this impact will be.

- Informed consent

Trans-specific medical treatment should be provided according through an informed consent model, as stated by many respondents. Currently, the trans-specific healthcare model is too complicated, and informed consent would remove unnecessary processes and loosen up regulations. The fact that many doctors and other healthcare providers are not informed enough plays a role in the accessibility of trans-specific healthcare treatments. If healthcare providers were informed about trans and gender diverse people, they would also agree with an informed consent model, according to the participants. Information should be provided to a range of healthcare providers, ranging from family doctors (GPs), urologists, gynaecologists, surgeons, endocrinologists, etc. The needs of trans and gender diverse people should be recognised and used as a basis for treatment, with specific attention paid to the fact that people might require different types of (medical) transition.

Conclusion

Respondents indicated, with rates varying depending on the type of trans-specific healthcare, that their access to trans-specific healthcare has been restricted due to the COVID-19 outbreak. For some types of treatment, such as mental healthcare and hair removal treatment, a higher proportion of respondents indicated that their access has been restricted due to the COVID-19 outbreak (63% and 62.3%). However, other types of trans-specific treatments are also reported being restricted by the outbreak (52.3% for care after surgery, 20.7% for hormone treatment, and 14.7% for surgical appointments). Trans and gender diverse respondents with a male sex assigned at birth, a basic educational level, a chronic problem, illness, or disability, and/or those respondents living in high-economy countries, reported significantly more restrictions when trying to access healthcare.

When limitations in access to other aspects of trans healthcare were assessed, the proportions also depended on the specific aspect of trans healthcare. For counselling services, 71.3% of the respondents indicated that their access to care was limited due to the COVID-19 outbreak. Lower proportions were found for the other aspects of trans healthcare, being access to other materials (e.g., binders, packing material) (26.1%), access to non-medical supplies (e.g., make-up, shaving supplies, wigs) (22.3%), and access to medical material post-surgery (e.g., vaginal dilators, chest compresses) (17.0%). In total, 39.0% experienced limited access to at least one of these other aspects of trans healthcare. Trans and gender diverse respondents belonging to a sexual minority (LGB+), with a chronic problem, illness or disability, and younger trans and gender diverse respondents reported significantly more restrictions when trying to access other aspects of trans healthcare.

Two open-ended questions were used to address one of the two research gaps identified in the RESISTIRÉ research agenda of cycle 1: How can access to transition-related healthcare and other care arrangements to address the needs of LGBTQI+ people be ensured during crises like the COVID-19 pandemic? Based on the answers from a random sample of respondents, different needs came to the surface. The first open-ended question asked about the kind of services a respondent would like to see from the (trans) health providers in their respective country during the COVID-19 outbreak. The second open-ended question asked the same in regard to local (trans) health organisations. Five themes arose from the respondents' answers: more online support, more/better counselling services, and more financial support. For healthcare providers, more education and easier accessibility to trans-specific healthcare (by shortening waiting lists and working with an informed consent model) were also mentioned as needs. Most of the responses from the respondents showed that the needs were not only applicable to the COVID-19 outbreak but indicated that they would like to see changes in general, not only during a pandemic. These needs, clearly elaborated by the trans and gender diverse respondents themselves, can be used for future recommendations in general, and during a pandemic.

2.5 Handbook for Conducting Intersectional Research, Turkey

Institution	*Social Policy, Gender Identity and Sexual Orientation Studies Association (SpoD)*
Funders	*National and international grant-making organizations and individual donors*
Contacts	*Oğulcan Yediveren*

Introduction

This is a new collaboration for cycle three which was established to contribute towards methodological challenges and data gaps from an intersectional perspective as identified in the research agenda of the second cycle of RESISTIRÉ. Social Policy, Gender Identity and Sexual Orientation Studies Association (SPoD) has collaborated with the RESISTIRÉ project to develop a handbook on inclusive and intersectional data collection, drawing on SPoD's experience in this field. Compared to other RAS, this collaboration contributes towards our research agenda in relation to intersectional methodological challenges and facilitating factors focusing on data collection and engagement with hard-to-reach groups such as LGBTIQ+. Furthermore, it provides insights into the role that specialised NGOs can play in conducting research on groups that are often difficult to reach.

SPoD is an organisation from Turkey that aims to contribute to the development of social policies which will allow LGBTIQ+ people in Turkey to live without feeling oppressed because of their gender identity and sexual orientation. SPoD, in addition to its advocacy work, has been conducting research for many years to reduce gendered inequalities and social exclusion, collecting data on the unique needs of disadvantaged groups (e.g., women, LGBTIQ+ communities etc.) and their problems in accessing various resources (rights, services, goods). Our research report on 'Access of LGBTQI+ to Social Services During the Pandemic' was one of the Rapid Assessment Surveys mapped during the first cycle of RESISTIRÉ. This study addresses an important gap in research looking intersectionally at the needs of this marginalised group during the pandemic and is the basis on which this collaboration was built upon.

The handbook provides guidance and support to researchers, academics, and professionals working with LGBTIQ+ communities on applying gender+ and intersectional approaches when collecting, analysing and presenting data, in a way that avoids reproducing existing inequalities. The handbook provides easily accessible recommendations, based on focus group discussions and interviews with those who conducted SPoD's recent study on access to social services during the pandemic for LGBTIQ+ communities and researchers of two other far-reaching surveys targeting LGBTIQ+ people in Turkey.

Intersectional methodological challenges: accessing and engaging LGBTIQ+ people

In general, LGBTIQ+ people are a hard-to-reach group for researchers because LGBTIQ+ people commonly hide their identity as a strategy to protect themselves from discrimination, stigmatisation and violence. The targeting of LGBTIQ+ persons at the state level in Turkey has increased privacy concerns among LGBTIQ+ persons. Therefore, researchers are often only able to reach a small segment of LGBTIQ+ people who are open about their identity in Turkey. Considering that educational level and socio-economic status are among the most important factors affecting the decision for coming out, studies with a sample of LGBTIQ+ persons have limitations in that they can only represent the experiences of a relatively advantaged group among LGBTIQ+ persons. Especially for researchers using methods such as surveys, where the number and diversity of people reached may be more important than other methods, it has become even more difficult to collect data on LGBTIQ+ persons. In other words, research targeting LGBTIQ+ individuals in Turkey suffers from many problems related to inclusivity.

However, as it is currently in Turkey, the alternative methods that oppressed groups have found to survive and resist under difficult conditions have always been inspiring. Researchers in Turkey are also seeking for new methods to overcome these obstacles and are experimenting and trying to improve the methods they find. One of the surveys that reached the highest number of LGBTIQ+ participants in Turkey emerged precisely as a product of a search brought about by such challenging conditions. As part of this collaboration, SPod conducted a focus group with researchers who conducted this survey, which led to understanding the process and the strategies identified to overcome barriers in reaching LGBTIQ+ people, but also what made these strategies successful.

Identifying strategies

Researchers used a variety of online channels to spread their survey during the pandemic, from WhatsApp groups to advertising on Facebook. Yet their reach was limited. In their discussions as a team of researchers, they were looking for ways to reach more people. One of the team suggested using a dating app used mostly by gay men to spread the survey and, due to personal contacts at the app company, was able to secure advertising for the survey within the app for free. The result was successful. After this app ran ads for the survey, the number of respondents almost doubled. According to one of the focus group participants, people using the app have sent each other this questionnaire to fill out even while flirting with each other on the app.

There were several factors determining this success. First, the researchers are familiar with the LGBTIQ+ community as they are also employees of an LGBTIQ+ rights organisation. They know the ethical codes, communication styles and socialising patterns of LGBTIQ+ people. For example, dating apps are one of the most used socialising spaces for LGBTIQ+ people. The reason why these applications are highly preferred is the privacy concerns of LGBTIQ+ people and the fact that these applications offer people the opportunity to remain anonymous. It is an advantage for researchers to know the importance of dating apps in LGBTIQ+ socialisation and which dating apps are used the most by LGBTIQ+s in Turkey. The second factor was that the LGBTIQ+ community embraced the survey since it was researching urgent needs of the community during the pandemic. Thus, the community cared about the research and was committed to its successful completion. Moreover, the spaces for LGBTIQ+ people to voice their problems were very limited and the research gave them a platform to be heard. The research was a participatory mechanism for them. In summary, the researchers were in collaboration with the LGBTIQ+ community. They benefited from the knowledge and experience of NGOs and activists. There was a relationship of reciprocity between participants and researchers and therefore, the research became a space for inclusion.

Recommendations for Inclusive Research

- Researchers should reflect on their own beliefs and values and foresee the potential impact of their own position on the research. Researchers should be honest about the ways in which their positionality can affect the research process.
- With regards to one's position, preconceived notions about the experiences and characteristics of the people in the research sample can be present. However, it is imperative to not let these assumptions interfere at any stage of the research but rather maintain genuine interest and curiosity towards understanding those experiences.
- Research participants should not be objectified as a means to obtain data. Professionalism does not mean dehumanising the researchers' relationship to the fieldwork, but recognising the individual people and experiences beyond the data.
- Building reciprocity is a good way to avoid the objectification of participants and can be reached through a conversational relationship instead of a one-sided exploratory relationship. The research should also be designed to contribute beyond academia by revealing the needs of the participants, demonstrating pertinent examples, and identifying the root cause of key issues.
- Even if a reciprocal relationship is established, the researchers should not act or say things that cross participants' personal boundaries for their own benefit. Researchers are not heroes and should not directly interfere with the choices of individuals as this removes agency
- Sensationalism should be avoided. Focusing on the sensational aspects of participants' stories will harm the quality of the research and will prevent building

authentic relationships with participants.

- Researchers should collaborate with relevant civil society organisations, activists, and communities they are researching. In this way, researchers can learn the rights-based language to use when engaging with particular communities, their subculture, and their ethical codes.
- Learning from the literature about the communities involved in the research is necessary. Since the history of oppressed social groups is also the history of oppression, not forgetting what has been written in the past can be a method of resistance. For a careful literature review, contacting academics in this field to get information is a good practice. Non-academic publications such as reports of rights-based associations and activist blogs should not be neglected.

2.6 Generations and Gender Survey COVID pilot study, Czechia

Institution	*Faculty of Social Studies, Masaryk University*
Funders	*Project "Obohacení datové báze pro tvorbu a evaluaci rodinné politiky (DARP) / Improvement of database for development and evaluation of family policy" – Technology Agency of the Czech Republic*
Contacts	*Prof. Martin Kreidl (Principal Investigator)* *Mgr. Dominika Perdoch Sladká (Team Member)*

Introduction

This collaboration seeks to address the following questions from the RESISTIRÉ research agendas:

- How have the increasing (routine and non-routine) care and domestic responsibilities during the pandemic been distributed and how are they associated with feelings of employment security and favourable working conditions?
- How have the increased care responsibilities during the pandemic affected relationship satisfaction, well-being and mental health?

The Czech Generations and Gender Survey COVID pilot study (Czech GGS COVID pilot study) is part of the larger, international study group of the Generations and Gender survey, containing a translation of the core questionnaire plus around 40 country-specific items focusing on economic uncertainty and the consequences of COVID-19. The data[27] was collected between 9 December 2020 and 12 February, 2021. A short follow-up survey[28] was organized in April 2021, which aimed to investigate family dynamics, wellbeing, and household relationships during the COVID-19 pandemic. This work closely aligns with RESISTIRÉ's focus on the consequences of the pandemic and how it has affected work, care, and family responsibilities unequally between women and men.

[27] Kreidl, M., Šťastná, A., Kocourková, J., Hamanová, J., Zvoníček, T., Slabá, J., Beaupré, P., Jablonski, W., Koops, J., Rijken, A., & Sturm, N. (2021a). Czech Harmonized Generations and Gender Survey-II Pilot (Version 0.3) [Data set]. Consortium of Masaryk university, Charles university, Research institute for labour and social affairs, and the SC&C survey agency. https://doi.org/10.57865/4W5V-3K95

[28] Kreidl, M., Šťastná, A., Kocourková, J., Dzúrová, D., Hamanová, J., Zvoníček, T., & Slabá, J. (2021b). Czech GGS COVID Pilot – a Follow-up study (Version 1.0) [Data set]. Consortium of Masaryk university and Charles university. https://doi.org/10.57865/K867-AH67

The following analysis focuses on women and men who had a co-resident partner during the period of data collection. The first section describes the distribution of housework in respondents' households and the distribution of childcare (in the case of respondents who have a child aged 14 or younger in the household) in the first wave of the Czech GGS COVID pilot and the follow-up study. The second section explores what impact gender had on changes in job security and working conditions due to the COVID-19 pandemic and respondents' relationship satisfaction during the pandemic. We also examine how gender in interaction with education and the distribution of household work impacted the changes in job security and working conditions due to COVID-19 and relationship satisfaction during the pandemic.

Through this collaboration, RESISTIRÉ and the Czech GGS COVID pilot study will work together to create new gender+ insights on the impact of COVID-19 and COVID-19 policies on work, relationship quality and life satisfaction. In this particular collaboration, we seek to build on existing analysis published by the Czech GGS COVID pilot study on relationship quality in the context of the COVID-19 pandemic to explore the division of domestic responsibilities during the crisis and how this has impacted work, relationship quality and life satisfaction, accounting for gender and educational level.

Section 1: Distribution of childcare and housework by gender and education

Results of descriptive analysis

Tables 2.6.1 and 2.6.2 present the distribution of childcare among respondents who have a co-resident partner and at least one child aged 14 or younger in their household, in two different time periods during the pandemic. Table 1 refers to a period between mid-March and June of 2020 when the government measures were relatively strict. During this period, children's presence in school was restricted – either the in-person presence was prohibited altogether, or the number of students present was limited. However, in March of 2021 (the time period to which the distribution of childcare in Table 2.6.2 refers), the government measures to mitigate the pandemic were stricter. During this period, the presence of children was prohibited in schools and kindergartens. Apart from this restriction, other measures were in place that had not been used in 2020 – for instance, a restriction of movement between Czech regions[29].

In both of these time periods, the distribution of childcare between partners was clearly gendered, and women were more likely than men to report that their partner did not participate in full-time childcare. This pattern was more often reported by women

[29] Slabá, J. (2022). Vládní boj proti pandemii: Přehled opatření vydaných v souvislosti s pandemií onemocnění covid-19 v Česku v letech 2020 a 2021 (The Government's Response to the Pandemic an Overview of Measures Related to the COVID-19 Pandemic in the Czech Republic in 2020 and 2021). Demografie, 64(2), 175–196. https://doi.org/10.54694/dem.0303

without tertiary education than by their more educated counterparts. Both women and men with tertiary education were more likely to report equal division of childcare than less educated respondents. Overall, men were more likely to report that both they and their female partner participated in full-time childcare.

Table 2.6.1: Distribution of childcare by gender and education (March-June 2020)

Gender	Education	Distribution of childcare			
		Only me	Me and partner	Other	Total
Men	No tertiary	13.8 % (12)	32.2 % (28)	54.0 % (47)	100 % (87)
	Tertiary	6.1 % (4)	51.5 % (34)	42.4 % (28)	100 % (66)
	Total	10.5 % (16)	40.5 % (62)	49.0 % (75)	100 % (153)
Women	No tertiary	68.3 % (71)	23.1 % (24)	8.7 % (9)	100 % (104)
	Tertiary	59.6 % (59)	34.3 % (34)	6.1 % (6)	100 % (99)
	Total	64.0 % (130)	28.6 % (58)	7.4 % (15)	100 % (203)

Note: In Wave 1 (December 2020), the question on the distribution of childcare was posed as follows: "Who provided all-day childcare at a time when, as a result of the Outbreak of the COVID-19 pandemic, the Government of the Czech Republic introduced nationwide quarantine measures? I.e., between mid-March and June 2020?". The respondent could choose several persons, including themselves, as well as family members and others. The categorization used in this analysis was created based on if the respondents chose themselves and their partner as providers of childcare.

Table 2:6.2 Distribution of childcare by gender and education (March 2021)

Gender	Education	Distribution of childcare			
		Only me	Me and partner	Other	Total
Men	No tertiary	10.3 % (9)	42.5 % (37)	47.1 % (41)	100 % (87)
	Tertiary	10.6 % (7)	50.0 % (33)	39.4 % (26)	100 % (66)
	Total	10.5 % (16)	45.8 % (70)	43.8 % (67)	100 % (153)
Women	No tertiary	63.5 % (66)	25.0 % (26)	11.5 % (12)	100 % (104)
	Tertiary	44.4 % (44)	49.5 % (49)	6.1 % (6)	100 % (99)
	Total	54.2 % (110)	37.0 % (75)	8.9 % (18)	100 % (203)

Note: In the follow-up (April 2021), the question on the distribution of childcare was posed as follows: "Who provided full-time childcare at the time the so-called 'hard lockdown' was introduced? I.e., from 1 March 2021." The respondent could choose several persons, including themselves, as well as family members and others. The categorization used in this analysis was created based on if the respondents chose themselves and their partner as providers of childcare.

The following table shows changes in the division of childcare between the two time

periods by gender and education. Due to a relatively low number of cases in some categories (see tables 2.6.1 and 2.6.2), we comment on the direction of the changes rather than the specific numbers. In the later time period (March 2021), the division of childcare between partners was more equal than in the first period (March to June 2020). Both men and women reported equal childcare more often in the second period than in the first period. Women were less likely to say that they, but not their partner, participated in full-time childcare in the second period (when the pandemic measures were stricter) than in the first period.

Table 2.6.3: Changes in the distribution of childcare by gender and education between March-June 2020 and March 2021.

Gender	Education	Only me	Me and partner	Other
Men	No tertiary	-25%	32%	-13%
	Tertiary	75%	-3%	-7%
	Total	0%	13%	-11%
Women	No tertiary	-7%	8%	33%
	Tertiary	-25%	44%	0%
	Total	-15%	29%	20%

Note: The directions of the percentual changes are color-coded. Blue: positive change. Orange: negative change. Purple: no change.

Tables 2.6.4 and 2.6.5 show the distribution of household work in Wave 1 (December 2020) and the follow-up (April 2021) of the Czech GGS COVID pilot study. In these tables, respondents with co-resident partners are included (whether or not they have children). As in the case of childcare, men reported an equal division of housework more often than women. More than 50% of women and around 13% of men reported that they do most of the household work. Women without tertiary education were more likely to do most of the things in the household than tertiary-educated women, but the educational difference did not exist among men.

Table 2.6.4: Distribution of household work by gender and education (wave 1, December 2020)

Gender	Education	Distribution of household work			
		Most of the things me	Equally me and partner/someone else	Most of the things partner/someone else	Total
Men	No tertiary	12.3 % (25)	43.8 % (89)	43.8 % (89)	100 % (203)
	Tertiary	14.2 % (23)	45.1 % (73)	40.7 % (66)	100 % (162)
	Total	13.2 % (48)	44.4 % (162)	42.5 % (155)	100 % (365)
Women	No tertiary	59.2 % (145)	31.0 % (76)	9.8 % (24)	100 % (245)
	Tertiary	42.6 % (83)	47.2 % (92)	10.3 % (20)	100 % (195)
	Total	51.8 % (228)	38.2 % (168)	10.0 % (44)	100 % (440)

Note: The distribution of household work was measured as follows in the interview: "The next questions are about who does what in your household. Please indicate who does the following tasks in your household," in both waves of the pilot. The tasks identified were preparing daily meals, vacuum cleaning the house, doing the laundry, doing small repairs in and around the house, paying bills and keeping financial records, and organizing joint social activities. The respondents answered on a 5-points scale (1 means always me and 5 means always or usually partner or someone else). To create the categorization used in this analysis, we created an index based on all the tasks and then divided the index into three categories (less than 2.5 = most of the things me; 2.5 to 3 = equally me and partner/someone else; more than 3 = most of the things partner/someone else).

Table 2.6.5: Distribution of household work by gender and education (follow-up, April 2021)

Gender	Education	Distribution of household work			
		Most of the things me	Equally me and partner/someone else	Most of the things partner/someone else	Total
Men	No tertiary	12.8 % (26)	38.4 % (78)	48.8 % (99)	100 % (203)
	Tertiary	13.0 % (21)	47.5 % (77)	39.5 % (64)	100 % (162)
	Total	12.9 % (47)	42.5 % (155)	44.7 % (163)	100 % (365)
Women	No tertiary	59.2 % (145)	29.4 % (72)	11.4 % (28)	100 % (245)
	Tertiary	46.7 % (91)	42.6 % (83)	10.8 % (21)	100 % (195)
	Total	53.6 % (236)	35.2 % (155)	11.1 % (49)	100 % (440)

Note: The distribution of household work was measured as follows in the interview: "The next questions are about who does what in your household. Please indicate who does the following tasks in your household," in both waves of the pilot. The tasks identified were preparing daily meals, vacuum cleaning the house, doing the laundry, doing small repairs in and around the house, paying bills and keeping financial records, and organizing joint social activities. The respondents answered on a 5-points scale (1 means always me and 5 means always or usually partner or someone else). To create the categorization used in this analysis, we created an index based on all the tasks and then divided the index into three categories (less than 2.5 = most of the things me; 2.5 to 3 = equally me and partner/someone else; more than 3 = most of the things partner/someone else).

Table 2.6.6 shows the changes in the division of household work between Wave 1 and the follow-up. When it comes to household work, women and men were less likely to

report that the distribution of chores is equal between them and their partner or someone else in the follow-up than in Wave 1. It seems that women's share of household work increased between Wave 1 in March-June 2020 and the follow-up in April 2021.

Table 2.6.6: Changes in the distribution of household work by gender and education between March-June 2020 and March 2021.

Gender	Education	Most of the things me	Equally me and partner/someone else	Most of the things partner/someone else
Men	No tertiary	4%	-12%	11%
	Tertiary	-9%	5%	-3%
	Total	-2%	-4%	5%
Women	No tertiary	0%	-5%	17%
	Tertiary	10%	-10%	5%
	Total	4%	-8%	11%

Note: The directions of the percentual changes are color-coded. Blue: positive change. Orange: negative change. Purple: no change.

To summarise, the distribution of childcare during the pandemic was more gendered in the Czech Republic than the distribution of household work. While the division of childcare between partners shifted to slightly more equal between waves (i.e., it was more equal at the time when very strict pandemic restrictions took place), the division of housework moved slightly in the opposite direction.

Section 2: Gender+ analysis on changes in job security and working conditions, and relationship satisfaction during the pandemic

Results of multivariate analysis

The following analysis focuses on how gender was associated with three factors: change in job security due to COVID-19, change in working conditions due to COVID-19, and relationship satisfaction during the pandemic. In line with the gender+ perspective, we also examine how gender interacted with education and household tasks distribution during the pandemic in relation to these three factors. In the multivariate analysis, we analyse data from the follow-up study as the questions on the change in job security and change in working conditions due to COVID-19 were not asked in the first wave.

Change in job security

The change in respondents' job security was measured by the question: "How has the COVID-19 pandemic affected the following areas of your life?", followed by a set of

areas, including job security. The respondents answered on a scale ranging from 1 (significantly worsened), through 3 (no change), to 5 (significantly improved). We analyse the mean value of this variable – therefore, a mean lower than 3 means worsening, while a mean higher than 3 means improvement.

The mean value of the change in job security was 2.70 (SD: 0.72; N = 728), which means that on average, respondents experienced worsening job security. The average value was 2.76 (SD: 0.69; N = 335) for men and 2.65 (SD: 0.75; N = 393) for women, so the difference was small but statistically significant (p = 0.04). In the following analysis, we examine the association of change in job security and gender in interaction with the division of housework and education.

Model 1 shows the association between the main three independent variables (gender, education, and distribution of household work) and change in job security due to COVID-19. Age is included as a control variable in all the presented models. As coefficients in Model 1 show, women had a lower value of the dependent variable than men, which means that they experienced worsening job security more than men. The difference between men and women was statistically significant on a 0.1 threshold of significance. As Model 2 and Model 3 show, gender does not interact significantly with the distribution of housework or education when controlling for other variables.

Table 2.6.7: Results of the linear regression models of change in job security due to COVID-19.

Variables	Dependent variable: Change in job security due to COVID-19					
	Model 1		Model 2		Model 3	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
Gender (ref. men)						
Women	-0.116 +	0.061	-0.151	0.120	-0.109	0.079
Distribution of household work (ref. almost everything me)						
Equally me and partner/someone else	0.085	0.066	0.083	0.124	0.085	0.066
Almost everything partner/someone else	0.000	0.078	-0.063	0.123	0.001	0.078
Education (ref. no tertiary)						
Tertiary	0.078	0.055	0.078	0.055	0.087	0.080
Age	-0.004 +	0.003	-0.004 +	0.003	-0.004	0.003
Interactions						
Gender * distribution of household (equally me and partner/someone else)			-0.020	0.147		
Gender * distribution of household (almost everything partner/someone else)			0.192	0.173		
Gender * education					-0.017	0.109
N	728		728		728	

***p ≤ 0.001, **p ≤ 0.01, *p ≤ 0.05, +p ≤ 0.1

Change in working conditions

Working conditions were also included as one of the areas in the question, "How has the COVID-19 pandemic affected the following areas of your life?" and the respondents answered on a scale ranging from 1 (significantly worsened), through 3 (no change), to 5 (significantly improved). Mean value of the change in working conditions was 2.69 (SD: 0.91; N = 719) among the whole sample. Men had a mean value of 2.74 (SD: 0.88; N = 337) and women 2.64 (SD: 0.94; N = 382). Therefore, working conditions have worsened on average for both genders, and the difference between them was not significant.

As in the case of job security, Model 1 includes the main independent variables without interactions, whereas Model 2 and Model 3 include the interactions between gender and the distribution of household work or education. The results show that gender, education, or distribution of household work did not significantly affect the changes that respondents experienced in relation to their working conditions due to COVID-19. Even when we look at the interactions of distribution of housework and education with gender, these do not significantly impact the dependent variable. Only age was significantly associated with changes in the working conditions due to COVID-19 – older respondents experienced worsening working conditions more than younger respondents.

Table 2.6.8: Results of the linear regression models of change in working conditions due to COVID-19.

Variables	Dependent variable: Change in working conditions due to COVID-19					
	Model 1		Model 2		Model 3	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
Gender (ref. men)						
Women	-0.109	0.077	-0.236	0.150	-0.152	0.100
Distribution of household work (ref. almost everything me)						
Equally me and partner/someone else	0.062	0.083	-0.054	0.156	0.059	0.084
Almost everything partner/someone else	0.044	0.099	-0.079	0.155	0.038	0.100
Education (ref. no tertiary)						
Tertiary	0.092	0.070	0.089	0.070	0.042	0.100
Age	-0.009 **	0.003	-0.009	0.003	-0.009 **	0.003
Interactions						
Gender * distribution of household (equally me and partner/someone else)			0.154	0.185		
Gender * distribution of household (almost everything partner/someone else)			0.215	0.221		
Gender * education					0.096	0.138
N	719		719		719	

***p ≤ 0.001, **p ≤ 0.01, *p ≤ 0.05, +p ≤ 0.

Relationship satisfaction

Relationship satisfaction was measured by a question, "How satisfied are you with your relationship with your partner? On a scale from 0 to 10 where 0 means 'not at all satisfied' and 10 means 'completely satisfied' and 5 means 'about average', what number best represents your satisfaction with your relationship?". The average satisfaction was 7.79 (SD: 2.03; N = 804). Men (mean: 7.96; SD: 1.89; N = 364) were slightly more satisfied with their relationships than women (mean: 7.65; SD: 2.13; N = 440). The difference between men and women was statistically significant (p = 0.03).

The next table 2.6.9 presents how the chosen factors were associated with respondents' satisfaction with their partnerships during the data collection of the follow-up study, which took place in April 2021. How partners divided the household work had a significant effect on partnership satisfaction (as can be seen in Model 1) – those who did almost everything in the household were much less satisfied with their partnership than others. However, the interaction between housework and gender was not significant, as well as the interaction between gender and education.

Table 2.6.9: Results of the linear regression models of relationship satisfaction.

Variables	Dependent variable: Relationship satisfaction during the COVID-19 pandemic					
	Model 1		Model 2		Model 3	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
Gender (ref. men)						
Women	-0.014	0.161	-0.452	0.319	-0.066	0.208
Distribution of household work (ref. almost everything me)						
Equally me and partner/someone else	0.680 ***	0.174	0.254	0.333	0.676 ***	0.174
Almost everything partner/someone else	0.825 ***	0.206	0.412	0.331	0.819 ***	0.206
Education (ref. no tertiary)						
Tertiary	0.150	0.145	0.142	0.145	0.113	0.006
Age	-0.009	0.006	-0.009	0.006	-0.009	0.006
Interactions						
Gender * distribution of household (equally me and partner/someone else)			0.560	0.392		
Gender * distribution of household (almost everything partner/someone else)			0.645	0.456		
Gender * education					0.113	0.288
N	804		804		804	

***p ≤ 0.001, **p ≤ 0.01, *p ≤ 0.05, +p ≤ 0

Conclusion

This RAS collaboration highlighted gendered inequalities in how household work and childcare were distributed in Czech couples during the pandemic. Women (especially those with lower education) did most of the childcare and housework. Women and men with tertiary education reported more equal patterns of housework and childcare division than those without tertiary education. Therefore, in line with the gender+ perspective, we found that gender in interaction with education had an impact on how household members shared unpaid work during the pandemic, which was connected to increased family responsibilities. The distribution of household work was associated with feelings of relationship satisfaction and dissatisfaction – those who did most of the work (which were women in most cases) were less satisfied with their partnerships. Division of housework did not have a significant effect on job security or working conditions; however, women's job security worsened significantly more during the pandemic than men's job security. Through this collaboration, we have contributed to research questions from the RESISTIRÉ research agendas and showed how gender, education, and division of domestic responsibilities interacted together and impacted people's work and partnerships during the pandemic in the Czech Republic.

2.7 Health Interview Survey COVID-19, Belgium

Institution	*Sciensano*
Funders	*Sciensano, COVID-19 project*
Contacts	*Pierre Smith* *Helena Bruggeman* *Rana Charafeddine*

Introduction

This is a new collaboration for cycle three, which was set up to address a lack of gender+ analysis in mental health and resilience, as highlighted in the research agendas of the first and second cycle of RESISTIRÉ. This study aims to assess how anxiety evolved in the Belgian adult population during the COVID-19 crisis, accounting for intersections between 1) sex and level of education that is used as a proxy for socio-economic status, 2) sex and age, and 3) the role of resilience in this evolution. The research questions of this study are therefore: 1) are some intersectional groups (those of differing gender/education/age) more vulnerable than others in terms of anxiety during the COVID-19 pandemic in Belgium and 2) is resilience positively or negatively associated with this vulnerability?

The COVID-19 Health Interview Survey (HIS) is a series of 11 online COVID-19 health surveys (waves), organized by Sciensano, the Belgian Institute of Public Health, to evaluate the impact of the COVID-19 crisis on Belgian adults' daily lives. As part of this collaboration, we used data from three of these survey waves to represent the course of the COVID-19 pandemic from April 2020 to June 2022. The exact dates of the data collection waves are shown in Table 2.7.1, together with the number of participants and the level of restrictions imposed by the government at all three time points. The analyses have been weighted to take into account the distribution of the Belgian adult population in terms of province, age, sex and level of education.

Table 2.7.1: Different time periods (1 to 3) of the COVID-19 survey – Number of respondents – Level of restrictions – examples of implemented restrictions

Wave	Date of data collection	# of participants	Level of restriction	Description
Time 1	2 – 9 April 2020	N=49,335	Severe restrictions	Strict lockdown (e.g., only essential movements outside the house allowed)
Time 6	18 – 25 March 2021	N=20,410	Moderate restrictions	Second lockdown with some relaxations (e.g., allowed to see 10 people outside, etc.)
Time 11	16 – 30 June 2022	N=18,706	Low/No restrictions	No restrictions (e.g., no obligation to wear a mouth mask, fill in a PLF by travelling, etc.)

The different analyses carried out in the context of this collaboration have the following objectives:

- The cross-sectional analyses aimed to assess the proportion of anxiety and low resilience in the population for different intersectional groups (sex/education and sex/age) across the 3 waves, while accounting for socio-demographic factors.
- The longitudinal analyses aimed to assess how anxiety evolved for the same group of people over time and the associated factors, including the different intersectional groups and their level of resilience. In total, 3380 people participated in the 3 waves and therefore were included in the longitudinal analysis.

General anxiety was selected as a mental health outcome, as this could be the most impacted by the COVID-19 crisis[30]. This outcome variable was measured in all 3 waves, which enabled the analysis of anxiety over time. To measure generalized anxiety disorders, the total sum score of the 7-item Generalized Anxiety Disorder questionnaire (GAD-7) [1] was used (see Appendix 2.7.1). One can answer these questions on a scale from 0 = "not at all" to 3 = "almost every day", with a reference period of the past 2 weeks. The total score between 0 and 21 is dichotomized at the cut-off value of 10+ for case definition. The specificity, sensitivity and internal consistency of this scale is greater than 0.8[31].

The ability to withstand setbacks, adapt positively, and bounce back from adversity is

[30] Bruggeman, H., Smith, P., Berete, F., Demarest, S., Hermans, L., Braekman, E., Charafeddine, R., Drieskens, S., De Ridder, K., and Gisle, L. 2022. "Anxiety and Depression in Belgium during the First 15 Months of the COVID-19 Pandemic: A Longitudinal Study." Behavioral Sciences 12(5):141. doi: 10.3390/bs12050141.

[31] Spitzer, Robert L., Kurt Kroenke, Janet B. W. Williams, and Bernd Löwe. 2006. "A Brief Measure for

described as "resilience" and was measured using the Brief Resilience Scale (BRS)[32]. Participants were asked about their ability to bounce back after difficult periods (see Appendix 2.7.1). Six questions could be answered from 1=strongly disagree to 5= strongly agree. Mean BRS scores between 1.00-2.99 are interpreted as 'low resilience', 3.00-4.30 as 'medium resilience' and 4.31-5.00 as 'high resilience[33]. Participants' level of resilience was only assessed in wave 6.

The statistical analyses for the cross-sectional aspect were carried out on binary outcomes based on the cut-off points previously described and aim to assess: 1) the proportion of participants with anxiety (yes/no) and a low level of resilience (yes/no), illustrated with weighted percentages and 2) the risk of having an anxiety disorder or a low level of resilience, modelled with relative risks (RR). The analyses for the longitudinal aspect were carried out using anxiety as a score.

Results

Anxiety and low resilience: Intersectional groups based on sex and educational level

Table 2.7.2 presents the proportion and risk of anxiety among different intersectional groups according to sex and educational level, by study wave. Educational level is used as a proxy for socio-economic status (see Section 3: EU analysis for further details).

- Over time (between April 2020 and June 2022) we found a decreasing proportion of people reporting high levels of anxiety across all intersectional groups (men with high education from 12% to 10%, men with low education from 20% to 13%, women with high education from 15% to 14%, and women with low education from 26% to 16%).
- Across the intersectional groups and in all study waves, people who reported the highest levels of anxiety are women and men with low levels of education.
- Overall, as the pandemic progresses, the level of anxiety seems to be more linked to education level rather than sex. In the first wave of the survey (April 2020), the proportion of anxiety was higher among women than men, regardless of level of education. In the last wave of the survey (June 2022), the level of anxiety among women with a high level of education was similar to that of men with a high level of education (10%).

[32] Assessing Generalized Anxiety Disorder: The GAD-7." Archives of Internal Medicine 166(10):1092–97. doi: 10.1001/archinte.166.10.1092.Smith, Bruce W., Jeanne Dalen, Kathryn Wiggins, Erin Tooley, Paulette Christopher, and Jennifer Bernard. 2008. "The Brief Resilience Scale: Assessing the Ability to Bounce Back." International Journal of Behavioral Medicine 15(3):194–200. doi: 10.1080/10705500802222972.

[33] Smith, Bruce W., Emerson M. Epstein, J. Alexis Ortiz, Paulette J. Christopher, and Erin M. Tooley. 2013. "The Foundations of Resilience: What Are the Critical Resources for Bouncing Back from Stress?" Pp. 167–87 in Resilience in children, adolescents, and adults: Translating research into practice, The Springer series on human exceptionality. New York, NY, US: Springer Science + Business Media.

Table 2.7.2: Proportion and risk of having **anxiety** (binary outcome) by sex and education, across study wave					
			Anxiety, yes		
			Wave 1 (n = 49,152)	*Wave 6 (n = 20,410)*	*Wave 11 (n = 18,706)*
Men	Low education	*weighted %*	20.1	20.6	12.5
		RR (95%CI)*	**1.74 (1.56-1.94)**	**1.25 (1.06-1.46)**	**1.35 (1.12-1.64)**
	High education	*weighted %*	11.8	18.3	10.3
		RR (95%CI)*	REF	REF	REF
Women	Low education	*weighted %*	25.8	25.2	16.3
		RR (95%CI)*	**2.70 (2.48-2.93)**	**1.66 (1.46-1.89)**	**1.52 (1.29-1.81)**
	High education	*weighted %*	14.8	17.5	10.3
		RR (95%CI)*	**1.32 (1.21-1.42)**	1.01 (0.91-1.12)	0.96 (0.84-1.11)
* Adjusted for age, living situation, and region. RR in bold indicates statistical significance.					

Table 2.7.3 presents the proportion and risk of low resilience according to sex and education (March 2021, wave 6).

- In comparison to men with a high level of education (27% low resilience), the other three intersectional groups were more likely to report a low level of resilience. A higher proportion of women with a low and high level of education (43% and 39% respectively) reported low resilience surpassing the proportion of men with low education (33%) suggesting that sex may be linked with different levels of resilience.

Table 2.7.3: Proportion and risk of having **low resilience** (binary outcome) according by sex and education, wave 6 (Brief Resilience Scale)

			Low resilience, yes
Men	Low education	*weighted %*	33.0
		RR (95%CI)*	**1.42 (1.26-1.60)**
	High education	*weighted %*	27.5
		RR (95%CI)*	REF
Women	Low education	*weighted %*	42.6
		RR (95%CI)*	**2.06 (1.85-2.28)**
	High education	*weighted %*	38.7
		RR (95%CI)*	**1.61 (1.48-1.75)**

* Adjusted for age, living situation, and region. RR in bold indicates statistical significance.

Anxiety and low resilience: Intersectional groups based on sex and age

Table 2.7.4 presents the proportion and risk of anxiety among different intersectional groups according to sex and age, across study waves.

- We found a decrease over time (between April 2020 and June 2022) in the proportion of people reporting high levels of anxiety across all intersectional groups. Young people (aged 18 to 34) reported a higher proportion of anxiety than older people (65 years and older).
- We can see that the risk of having anxiety between intersectional groups (reference group = men aged 35-49) varied across all study waves. During the first wave (April 2020), the groups most at risk for having anxiety were women of all age groups, with the highest risk among women aged 50-64. During the sixth wave (March 2021), no group was significantly at higher risk for having anxiety compared to middle-aged men, and men 65+ had a lower risk of anxiety. During the last wave (June 2022), no group was at higher risk for anxiety, and men aged 50 years and older had a lower risk.
- The role of sex on the risk of having anxiety seems to fade over time. In comparison to men aged 35-49, women in all age groups were at higher risk for anxiety at the beginning of the pandemic (April 2020), but the risk is no longer significant in the subsequent waves (March 2021 and June 2022).

Table 2.7.4: Proportion and risk of having **anxiety** (binary outcome) by sex and age, across study wave					
			Anxiety, yes		
			Wave 1 (n = 49,152)	*Wave 6 (n = 20,410)*	*Wave 11 (n = 18,706)*
Men	18-34	*weighted %*	22.6	30.8	12.8
		RR (95%CI)*	1.01 (0.86-1.17)	0.92 (0.72-1.20)	0.71 (0.47-1.05)
	35-49	*weighted %*	16.3	21.6	16.2
		RR (95%CI)*	REF	REF	REF
	50-64	*weighted %*	11.6	17.0	11.8
		RR (95%CI)*	1.04 (0.89-1.22)	1.04 (0.84-1.28)	**0.68 (0.50-0.90)**
	65+	*weighted %*	7.4	7.5	5.3
		RR (95%CI)*	0.94 (0.73-1.21)	**0.58 (0.41-0.83)**	**0.42 (0.27-0.65)**
Women	18-34	*weighted %*	24.8	36.8	23.3
		RR (95%CI)*	**1.22 (1.07-1.39)**	0.81 (0.65-1.01)	0.76 (0.56-1.04)
	35-49	*weighted %*	19.1	22.6	12.7
		RR (95%CI)*	**1.30 (1.18-1.44)**	0.85 (0.73-1.01)	1.03 (0.88-1.21)
	50-64	*weighted %*	16.8	17.4	11.9
		RR (95%CI)*	**1.60 (1.39-1.83)**	1.04 (0.84-1.28)	0.80 (0.61-1.05)
	65+	*weighted %*	11.7	11.9	7.4
		RR (95%CI)*	**1.44 (1.14-1.80)**	0.94 (0.68-1.29)	0.98 (0.97-1.02)
* Adjusted for sex, living situation, and region. RR in bold indicates statistical significance.					

Table 2.7.5 presents the proportion and risk of having low resilience by sex and age (March 2021, wave 6).

- In comparison to men aged 35-49, women in all age groups were at higher risk

of having low resilience, with the highest risk among women aged 18-34 (56%). This result suggests again that sex seems to have an important role on their reporting of resilience.

Table 2.7.5: Proportion and risk of having **low resilience** (binary outcome) by sex and age, wave 6 (Brief Resilience Scale)

			Low resilience, yes
Men	Between 18-34	*weighted %*	36.3
		RR (95%CI)*	1.05 (0.84-1.31)
	Between 35-49	*weighted %*	36.4
		RR (95%CI)*	REF
	Between 50-64	*weighted %*	28.7
		RR (95%CI)*	1.01 (0.84-1.22)
	65+	*weighted %*	21.9
		RR (95%CI)*	0.97 (0.75-1.26)
Women	Between 18-34	*weighted %*	56.1
		RR (95%CI)*	**1.78 (1.48-2.12)**
	Between 35-49	*weighted %*	40.6
		RR (95%CI)*	**1.42 (1.24-1.62)**
	Between 50-64	*weighted %*	35.7
		RR (95%CI)*	**1.54 (1.30-1.82)**
	65+	*weighted %*	30.5
		RR (95%CI)*	**1.61 (1.26-2.06)**

* Adjusted for sex, living situation, and region. RR in bold indicates statistical significance.

Evolution of anxiety during the COVID-19 crisis accounting for intersections between sex and education-level and the role of resilience in this evolution

We also explored the factors associated with the evolution of anxiety (continuous outcome) over time during the COVID-19 crisis and tried to understand how resilience

might be related to anxiety through an intersectional lens (Table 2.7.5).

- The model highlighted that the fixed effect of time on the level of anxiety was significant, with a small decrease of the level of anxiety in March 2021 (wave 6) and a large decrease in June 2022 (wave 11) in comparison to April 2020. This can be explained by the resilience of the population over time in the face of the COVID-19 pandemic, as well as the reduction in the stringency of restrictive measures over time.

- Regarding the intersections between sex and education, two groups were more likely to report a decrease in their level of anxiety over time in comparison to men with high education: women with high and low education.

- Regarding the intersectionality between sex and age, some groups were more likely to report a decrease in anxiety over time, while others were more likely to report an increase (in comparison to men aged 35-49).
    - Increase in anxiety over time: Men aged 50-64 and men aged 65+
    - Decrease in anxiety over time: Women aged 18-34, women aged 35-49, and women aged 50-64

- We found a strong association between resilience and the evolution of the level of anxiety over time. In comparison to people with a low level of resilience, those with a medium and high level of resilience were more likely to report a decrease in their level of anxiety over time.

- As part of this collaboration, we also tested the interaction between the two intersectional groups (sex/education- interaction 1 and sex/age - interaction 2) and the level of resilience. Both interactions were significant and highlighted the important role of high resilience for women in decreasing the level of anxiety over time, particularly for women aged 18-34 and 34-49 and with a low level of education.

Table 2.7.6: Evolution over time of the level of **anxiety** (continuous score) during the COVID-19 crisis

	Anxiety (continuous score)* β (95% CI)		
	Model 1: Fixed effects	**Model 2: Interaction 1**	**Model: Interaction 2**
Time (REF = wave 1) • Wave 6 • Wave 11	 **-0.57 (-0.72; -0.43)** **-1.43 (-1.61; -1.28)**	No difference from model 1	No difference from model 1
Sex/education (REF = men with high ed.) • Men with low education • Women with low education • Women with high education	 0.17 (-0.56; 0.91) **-1.12 (-2.17; -0.08)** **-1.70 (-2.62; -0.75)**	No difference from model 1	No difference from model 1
Sex/age (REF = men between 35-49) • Men between 18-34 • Men between 50-64 • Men 65+ • Women between 18-34 • Women between 35-49 • Women between 50-64 • Women 65+	 -0.65 (-1.95; 0.59) **1.91 (0.99; 2.75)** **2.60 (1.66; 3.53)** **-1.81 (-2.56; -1.03)** **-1.90 (-2.56; -1.23)** **-1.12 (-1.71; -0.50)** 0.20 (-0.47; 0.89)	No difference from model 1	No difference from model 1
Resilience (REF=low) • Medium • High	 **-3.70 (-4.63; -2.80)** **-5.10 (-6.85; -3.43)**	No difference from model 1	No difference from model 1
Sex/education * Resilience • Low ed. men * medium resilience • Low ed. men * high resilience • Low ed. women*medium resilience • Low ed. women * high resilience • High ed. women* medium resilience • High ed. women * high resilience	/	 -0.29 (-1.15; 0.54) -0.03 (-1.00; 0.89) -0.65 (-1.41; 0.13) **-1.24 (-2.12; -0.35)** -0.36 (-0.92; 0.17)	

		-0.81 (-1.45; -0.17)	
Sex/age * Resilience • Men 18-34 * medium resilience • Men 18-34 * high resilience • Men 50-64 * medium resilience • Men 50-64 * high resilience • Men 65+ * medium resilience • Men 65+ * high resilience • Women 18-34 * medium resilience • Women 18-34 * high resilience • Women 35-49 * medium resilience • Women 35-49 * high resilience • Women 50-64 * medium resilience • Women 50-64 * high resilience • Women 65+* medium resilience • Women 65+ * high resilience	/		1.51 (-0.12; 3.30) 1.31 (-2.01; 4.60) 0.72 (-0.70; 2.52) 0.03 (-1.01; 1.06) 0.35 (-1.28; 1.41) 0.92 (-0.93; 2.71) -0.38 (-1.34; 0.59) **-2.39 (-3.27; -1.43)** -0.19 (-0.98; 0.48) **-1.07 (-2.03; -0.07)** -0.11 (-0.80; 0.65) -0.31 (-1.35; 0.23) 0.20 (-0.48; 0.88) 0.21 (-0.59; 0.96)

* GEE model adjusted for living situation and region. Coefficient in bold indicates statistical significance.

Conclusion

This collaboration with RESISTIRÉ has facilitated an investigation into the intersections between sex, education and age in relation to anxiety and resilience during the pandemic. More specifically, this study examined how anxiety has evolved in the Belgian adult population during the COVID-19 crisis, accounting for intersections between 1) sex and education-level and 2) sex and age, as well as 3) the role of resilience in this evolution.

Overall, this study found a decrease over time (between April 2020 and June 2022) in the proportion of people reporting anxiety across all intersectional groups. This was also found in other studies[34] and can be explained by the resilience of the population over time in the face of the COVID-19 pandemic, as well as the reduction in the stringency of restrictive measures over time. As in other studies[35], this study also found a higher proportion of anxiety among young people. The disproportionate impact of the COVID-19 pandemic on young people can be explained by the increased pressure on families, decreased peer contact, decreased social activities, and closure of schools.

Regarding the intersectionality between sex and education, those with low levels of education were more likely to report high levels of anxiety irrespective of their sex. Regarding the intersectionality between sex and age, we found that women of all age groups were more likely to report anxiety during the first study wave (April 2020), but more likely to report a decrease over time in their level of anxiety compared to men aged 35-49. In short, the role of sex on anxiety seems to fade over time, while the relationship of education and age with anxiety seems to become stronger over time during the course of the pandemic (in 2021 and 2022).

Regarding resilience, we found a significant association between resilience and level of anxiety over time. Compared to people with a low level of resilience, those with medium or high levels of resilience were more likely to report a decrease in their level of anxiety over time. In terms of intersections between sex, gender and education, we found that women across all age groups and women with low or high education levels were more likely to report a low level of resilience. This result highlights the important role of sex in resilience.

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[34] Bruggeman et al., 2022; Riepenhausen, A., Veer, I., Wackerhagen, C., Reppmann, Z.C., Köber, G., Ayuso-Mateos, J.L., Bögemann, S.A., Corrao, G., Felez-Nobrega, M., Haro Abad, J.M., Hermans, E., van Leeuwen, J., Lieb, K., Lorant, V., Mary-Krause, M., Mediavilla, R., Melchior, M., Mittendorfer-Rutz, E., Monzio Compagnoni, M., Pan, K., Puhlmann, L., Roelofs, K., Sijbrandij, M., Smith, P., Tüscher, O., Witteveen, A., Zerban, M., Kalisch, R., Kröger, H., and Walter, H. 2022. "Coping with COVID: Risk and Resilience Factors for Mental Health in a German Representative Panel Study." Psychological Medicine 1–11. doi: 10.1017/S0033291722000563.

[35] Lorant, V., Smith, P., Van den Broeck, K., and Nicaise, P. 2021. "Psychological Distress Associated with the COVID-19 Pandemic and Suppression Measures during the First Wave in Belgium." BMC Psychiatry 21(1):112. doi: 10.1186/s12888-021-03109-1.

Furthermore, due to this collaboration, we tested the interaction between the two intersectional groups (sex/education and sex/age) and the level of resilience. The results highlighted that high levels of resilience are associated with less anxiety over time especially for younger (aged 18-34 and 34-49) and less educated women.

Future research should explore and contribute towards developing interventions to build resilience at the population and individual level that can help and support disadvantaged minorities in times of crisis, such as young women with low education levels.

Section 3: European analysis

By Federica Rossetti, Lorenzo Lionello, Rana Charafeddine

3.1 Introduction

In the first cycle of RESISTIRÉ, we mapped indicators of inequalities potentially caused or accentuated by the pandemic together with relevant data sources that contain comparable data at the European level. In the second cycle, we presented data to allow a better understanding of the gender+ impacts of the pandemic within four inequality grounds (age, sexuality and gender identity, nationality and relationship status). In this third cycle, we present insights on the evolution of inequalities during the crisis in Europe for a number of indicators organised in four areas: employment, work-life balance, and inclusion; care and household work; trust in institutions; and perceived health and resilience. These four areas were chosen as they fall under the domains of interest within RESISTIRÉ[36], were reportedly impacted during the different phases of the pandemic[37] and were available at the European level in the online Eurofound survey "Living, working, and COVID-19" conducted during the pandemic[38].

3.2 Methodological notes

Four survey rounds were available at the time of the current report: spring 2020 (round 1), summer 2020 (round 2), spring 2021 (round 3) and spring 2022 (round 5). A fourth round was collected in autumn 2021, however this was only open to respondents who took part in the previous rounds and was not made publicly available by Eurofound.

Given the gender+ approach of RESISTIRÉ, we follow an intersectional approach that has been described in the literature as "intercategorical". In public health, this approach has been particularly useful in systematically comparing various inequalities between groups defined by social position and identity.[39] Many other methodological approaches exist to observe intersectional differences, and feminist studies have critiqued this approach for not truly analysing intersectional differences.[40] However, we found this approach to be the most effective considering time and data limitations. We

36 Stovell et al., 2021.
37 Eurofound. (2022). Fifth round of the Living, working and COVID-19 e-survey: Living in a new era of uncertainty. Publications Office of the European Union. https://www.eurofound.europa.eu/publications/report/2022/fifth-round-of-the-living-working-and-covid-19-e-survey-living-in-a-new-era-of-uncertainty
38 Eurofound. (2020). Living, working and COVID-19 dataset. http://eurofound.link/covid19data
39 Harari, L. and Lee, C. (2021) 'Intersectionality in quantitative health disparities research: A systematic review of challenges and limitations in empirical studies', Social Science & Medicine, 277, p. 113876. Available at: https://doi.org/10.1016/j.socscimed.2021.113876.
40 McCall, L. (2005). The Complexity of Intersectionality. Signs, 30(3), 1771–1800. https://doi.org/10.1086/426800

identified intersectional groups based on two characteristics: sex and educational level[41] as a proxy for socio-economic position. The two variables were dichotomised resulting in four groups: females with less than a tertiary education; males with less than a tertiary education; females with tertiary education; males with a tertiary education. Although there is heterogeneity within these two educational groups, the data did not allow a more nuanced differentiation. There are several advantages linked to the use of education as an indicator of socio-economic position. First, it can apply to the whole population independently from the labour market status. Second, it captures the transition from parents to one's own socio-economic position and it remains quite stable over the life course[42]. Third, it is a strong determinant of occupation and income[43].

A description of the indicators and corresponding survey items is included in Appendix 3.1. All categorical variables were transformed into binary observations, where 1 indicates that the state described is present (e.g., having lost the job during COVID-19) and 0 indicates that the state described is absent. Two types of analysis were then performed: (i) descriptive analysis to produce prevalence rates by intersectional group and round; and (ii) multilevel logistic regressions for each survey round separately accounting for the fact that people are nested in countries, including the intersectional groups as predictors (with male with tertiary education as reference category as this group is considered to be the most advantaged) and controlling for age. For the continuous variables we performed two analyses: (i) descriptive analysis of the means by intersectional groups and round; and (ii) multilevel regressions for each survey round separately accounting for the fact that people are nested in countries, including the intersectional groups as predictors (with male with tertiary education as reference category) and controlling for different individual-level characteristics depending on the variable analysed. The size of the sample may vary between the descriptive and the multilevel analysis as in the latter we adjusted for different characteristics.

Data analysis was conducted with microdata obtained from Eurofound, and data were weighted using the weights provided by Eurofound. More information about weighting, data collection, and representation of the samples can be found on Eurofound's website (https://www.eurofound.europa.eu/data/covid-19). Data manipulations were completed using STATA and R statistical software.

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[41] Respondents were asked about the highest diploma they obtained. People with tertiary education were considered as high education level, while people with secondary education or lower were considered as low education level. People less than 24 years old were excluded from the analysis as educational level may not be final yet.

42 Davey Smith, G., Hart, C., Hole, D., MacKinnon, P., Gillis, C., Watt, G., Blane, D., & Hawthorne, V. (1998). Education and occupational social class: Which is the more important indicator of mortality risk? Journal of Epidemiology & Community Health, 52(3), 153–160. https://doi.org/10.1136/jech.52.3.153. ; Galobardes B., Shaw, M., Lawlor, D. A., Lynch, J. W., & Davey Smith, G. (2006). Indicators of socioeconomic position (part 1). Journal of Epidemiology and Community Health, 60(1), 7–12. https://doi.org/10.1136/jech.2004.023531

[43] Galobardes et al., 2006.

3.3 Results

Employment, work-life balance, and inclusion

As European countries restricted movements and brought their economies to an almost complete halt, many people in professions which could not transfer to working remotely from home were laid off abruptly, putting many households in a suddenly precarious situation. The first two cycles of the RESISTIRÉ project had already investigated the economic impacts specific to some sectors of the economy, and tried to identify some of the most vulnerable groups which might have been hit by the crisis caused by the pandemic. In this cycle, after almost three years since the beginning of the public health emergency, we can see how the unemployment situation has evolved over time and understand it through the lens of our defined intersectional groups. Employment is a complex economic indicator, which might be affected by a myriad of different factors. Moreover, governments around Europe tried to aid workers and businesses with welfare packages to help them in periods of uncertainty[44]. Therefore, changes in employment rates might need indicators too complex to properly understand without an in-depth analysis related to the overall economy. However, the Eurofound survey asked its respondents whether they lost their job during the pandemic, which we investigated according to our intersectional groups. The relationship between work and wellbeing is well-known and has been amply explored in scientific literature. With good working conditions and when paid fairly, a job not only offers means to live, but also fulfillment and purpose, contributing to the overall health of an individual[45]. Therefore, losing one's job in a period of emergency such as the one created by the COVID-19 pandemic, can be detrimental both to a person's wellbeing as well as putting them in a more precarious economic situation.[46]

While only looking at employment is not sufficient to give us the full picture of the

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44 International Labour Organization. (2020, February 1). ILO Social Protection Platform: Social protection Responses to COVID-19 Crisis around the World [Interactive Map]. ILO Social Protection Platform. https://www.social-protection.org/gimi/ShowWiki.action?id=3417
International Labour Organization. (2021). ILO Monitor: COVID-19 and the world of work. Seventh edition. Updated estimates and analysis. ILO. https://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/documents/briefingnote/wcms_767028.pdf

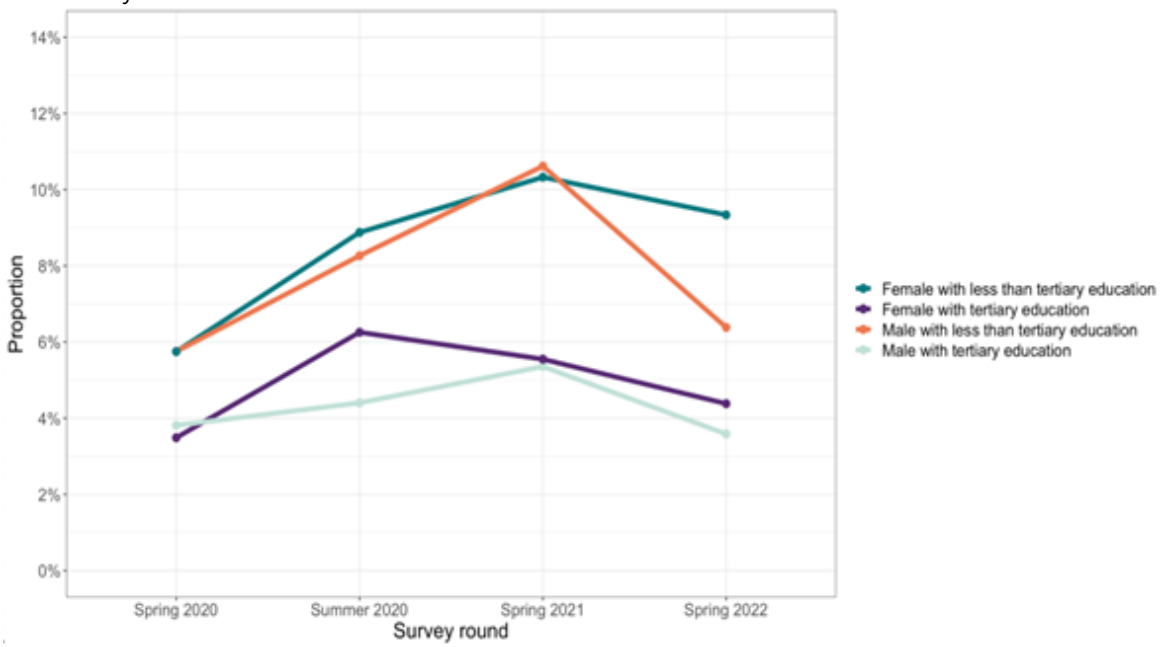
45 Durcan, D. (2015). Promoting Good Quality Jobs to Reduce Health Inequalities. IHE. https://www.instituteofhealthequity.org/resources-reports/local-action-on-health-inequalities-promoting-good-quality-jobs-to-reduce-health-inequalities-
Henseke, G. (2018). Good jobs, good pay, better health? The effects of job quality on health among older European workers. The European Journal of Health Economics, 19(1), 59–73. https://doi.org/10.1007/s10198-017-0867-9

46 Marmot, M., Allen, J., Boyce, T., Goldblatt, P., & Morrison, J. (2020). Marmot Review 10 Years On (Marmot Review). IHE. https://www.instituteofhealthequity.org/resources-reports/marmot-review-10-years-on

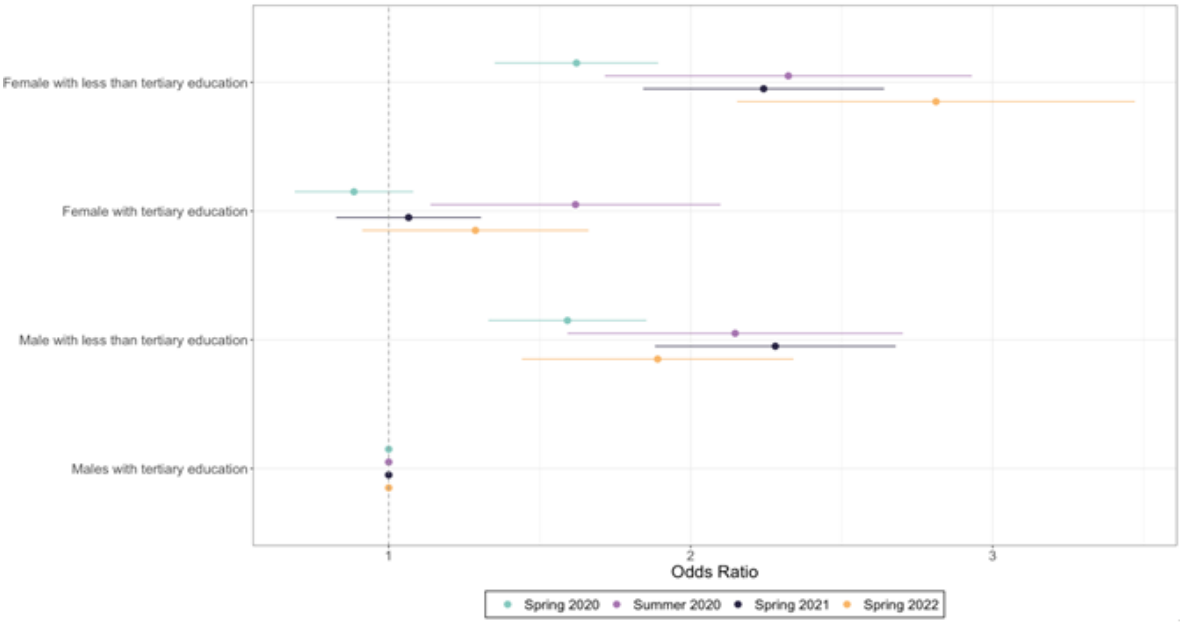
socioeconomic situation of our intersectional groups, the differences observed between them might be indicative of how their socioeconomic characteristics affected their employment status during the pandemic. Figure 3.3.1(a) shows the proportion of people who lost their job during the pandemic at four points in time between 2020 and 2022. We can see a steep increase in those who reported losing their job between Spring 2020 and Spring 2021, which seems to be the peak for all our intersectional groups except for females with tertiary education. Additionally, we observe a recovery between Spring 2021 and Spring 2022. In Figure 3.3.1(a) we can see that while less people seemed to report losing their job overall, the magnitude of change is much larger for men than for women. Overall, the group which seem to have done worst between Spring 2020 and Spring 2022 are women with less than a tertiary degree. In the beginning of the crisis, there is almost 2 percentage points (p.p.) of difference between male with tertiary education and lower educated males and females. In spring 2022, this difference increased slightly between high and lower educated males (2.6 p.p.), but it increased significantly for lower educated female (5.4 p.p.). Figure 3.3.1(b) explores the odds ratio (OR) of losing a job during the pandemic compared to males with a tertiary degree. An odds ratio of 1 represents no difference from the comparison group. The models show that after adjusting for age and country of residence, there is a significant increase in inequalities between high educated males and lower educated females: In Spring 2022, females with less than tertiary education were 2.7 times more likely than higher educated males to report a job loss. The OR in spring 2020 were 1.7. These findings show that recovery has remained slow for this intersectional group, and generally it seems that education played a significant role in helping individuals back into the job market.

Figure 3.3.1

(a) Proportion of people who lost their job during the COVID-19 crisis by intersectional group and survey round



(b) Odds of having lost your during the pandemic, controlling for age and country of residence. Reference category: males with tertiary education



For the most part, those who lost their job were primarily employed in the sectors that were most hit by the pandemic. Women without a higher education tend to be mostly employed in these sectors, which can explain the staggering difference that we observe between women of different educational attainment: higher educated women were more likely to transition to working from home more easily than women with a lower

educational attainment, as these jobs tend to be more centered around in-person services and suffered the most due to the movement restrictions that were introduced during the pandemic.[47]

Working from home, at the same time, did not come without consequences: for many people it meant they needed to reconcile paid and unpaid work. A review of studies on the effects of telework on work-life balance across different countries showed that various individual and external factors might have affected the balance between the work and non-work domains of teleworkers, both negatively and positively.[48] For some men, for example, telework was an opportunity to be more engaged as fathers[49], while some working mothers had to change their paid work schedules to accommodate the increase childcare needs, with possible detrimental effects for their mental health.[50]

Our analysis shows that work-life balance was challenging during the pandemic, especially for women. Up until Spring 2022, differences in the proportion of people indicating that they felt too tired after work to undertake household tasks were observed only between females and males, and not between lower and higher educated people (Figure 3.3.2). Throughout the pandemic, though, a general increase in this specific work-life balance issue was observed for all the intersectional groups, reaching the highest peak in spring 2022. The increase might be linked to the fact that work gradually returned to a degree of normality and people who could not work from home (or had fewer opportunities to work from home) had more difficulties to combine paid work with household work. The difference in proportion of lower educated females and high educated males who felt tired after work to undertake household tasks has increased from 7.2 percentage points at the beginning of the crisis to 11.9 percentage points in spring 2022.

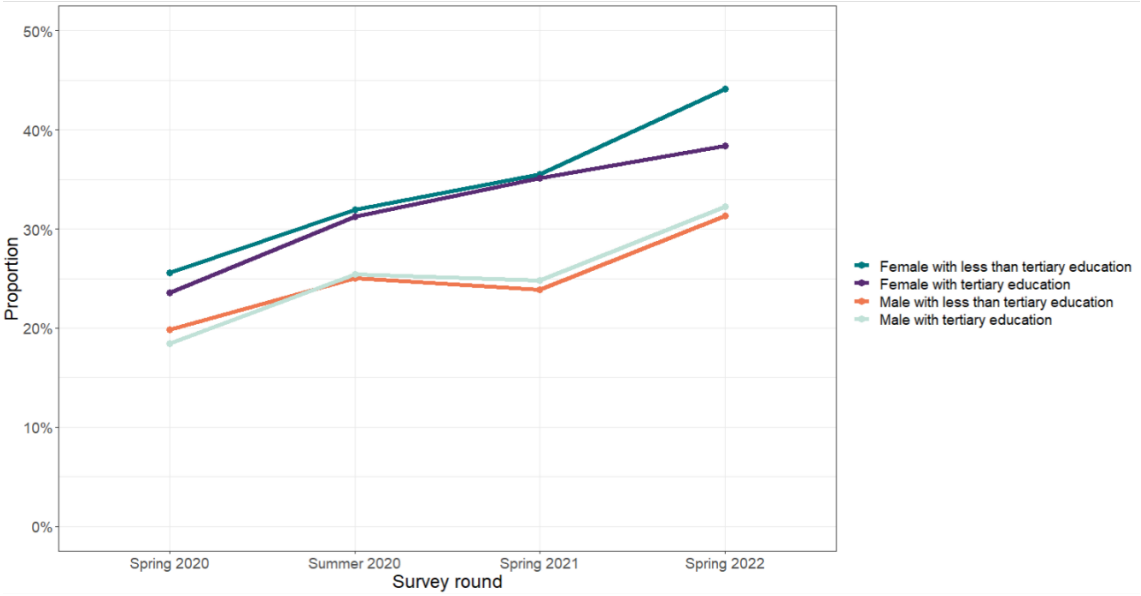
[47] Goldin, C. (2022). Understanding the Economic Impact of COVID-19 on Women. National Bureau of Economic Research, Working Paper No. 29974. https://doi.org/10.3386/w29974

[48] Elbaz, S., Richards, J. B., & Provost Savard, Y. (2022). Teleworking and work–life balance during the COVID-19 pandemic: A scoping review. Canadian Psychology / Psychologie Canadienne, Advance online publication. . https://doi.org/10.1037/cap0000330

[49] Cannito, M., & Scavarda, A. (2020). Childcare and Remote Work during the COVID-19 Pandemic. Ideal Worker Model, Parenthood and Gender Inequalities in Italy. Italian Sociological Review, 10(3S). https://doi.org/10.13136/isr.v10i3S.399

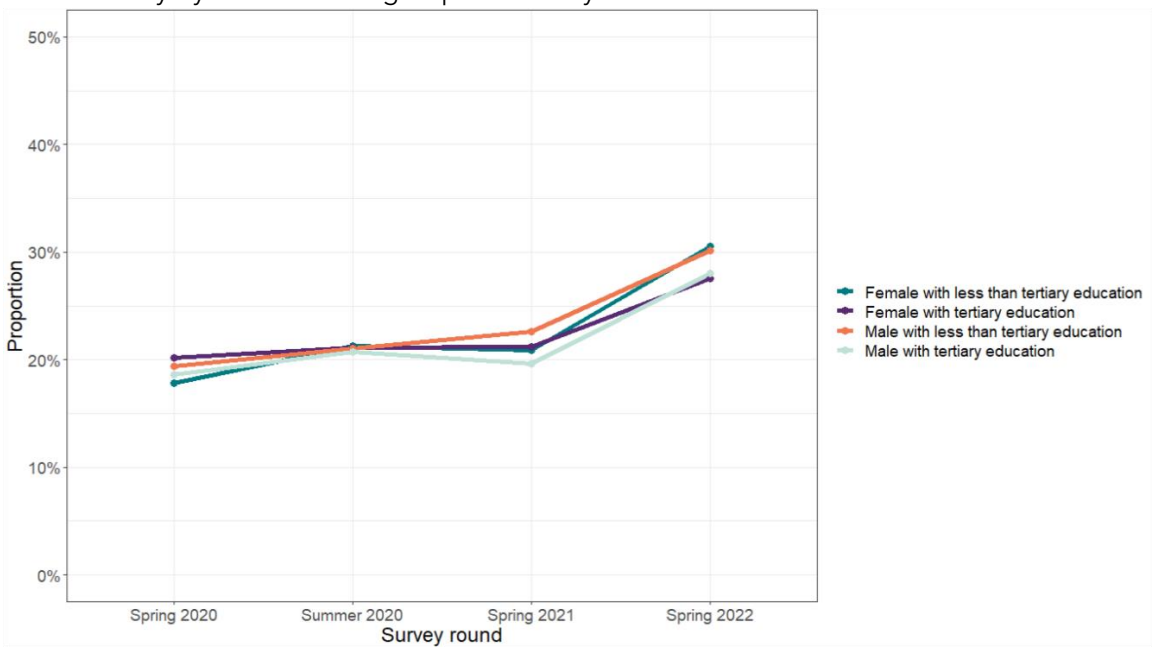
[50] Lyttelton, T., Zang, E., & Musick, K. (2022). Parents' work arrangements and gendered time use during the COVID-19 pandemic. Journal of Marriage and Family, 1–17. https://doi.org/10.1111/jomf.12897

Figure 3.3.2
Proportion of people saying that they felt too tired after work to do some of the household jobs which needed to be done by intersectional group and survey round



The situation is slightly different with regard to whether people felt that their job prevented them from giving time to their families (Figure 3.3.3). In this case, we do not observe large differences between the intersectional groups, however we see an increase for all the groups in the last round compared to the previous ones. This increase might be again linked to the progressive release of pandemic measures and people working less from home compared to the beginning of the crisis.

Figure 3.3.3
Proportion of people who found that their job prevented them from giving the time they wanted to their family by intersectional group and survey round



While for the effect of work on household jobs results are gendered, most likely due to the fact that women do more routine tasks within the household[51], we do not observe a gender difference in relation to spending enough time with family. In this case, the pandemic does not seem to have played a role in widening gender differences in terms of family time. Comparing these two indicators with the same questions asked in the Eurofound's European Working Conditions Survey of 2015, the proportion of people reporting work-life conflicts is higher at the beginning of the pandemic compared to 2015, and it has remained higher than pre-pandemic throughout the period analysed.[52] Our analysis shows that these conflicts have further increased in the last year, when people were more likely to bear the stress of multiple ongoing crises.

Social inclusion

Employment is a strong indicator of social inclusion, but a myriad of other factors contribute to individual wellbeing. Community and sense of belonging are two other factors which are important during a crisis, and help people cope during difficult times. Social exclusion and loneliness have been two of the most discussed issues related to the pandemic and the movement restrictions imposed by governments to stop the spread of the virus.[53] Figure 3.3.4 (a) shows the proportion of people who report feeling left out of society at different moments in time. A sharp increase is evident in all intersectional groups, likely tied to the prolonged public health emergency and a reintroduction of movement restrictions which happened around this time across Europe. While the prevalence significantly decreased for all intersectional groups between 2021 and 2022, we notice that overall, the prevalence of those saying they feel left out was higher in 2022 compared to 2020 for all groups, suggesting that the pandemic has made everyone feel, regardless of socioeconomic status, somewhat more excluded. Once more, it was low educated females that were more likely to report that they felt left out compared with the other groups. Figure 3.3.4(b) shows that, after adjusting for age and country of residence, educational attainment likely plays the most

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[51] Domínguez-Folgueras, M. (2013). Is Cohabitation More Egalitarian? The Division of Household Labor in Five European Countries. Journal of Family Issues, 34(12), 1623–1646. https://doi.org/10.1177/0192513X12464948

[52] Nivakoski, S., & Mascherini, M. (2021). Gender Differences in the Impact of the COVID-19 Pandemic on Employment, Unpaid Work and Well-Being in the EU. Intereconomics, 56, 254–260. https://doi.org/10.1007/s10272-021-0994-5

53 Allen, J., Darlington, O., Hughes, K., & Bellis, M. A. (2022). The public health impact of loneliness during the COVID-19 pandemic. BMC Public Health, 22(1), 1654. https://doi.org/10.1186/s12889-022-14055-2

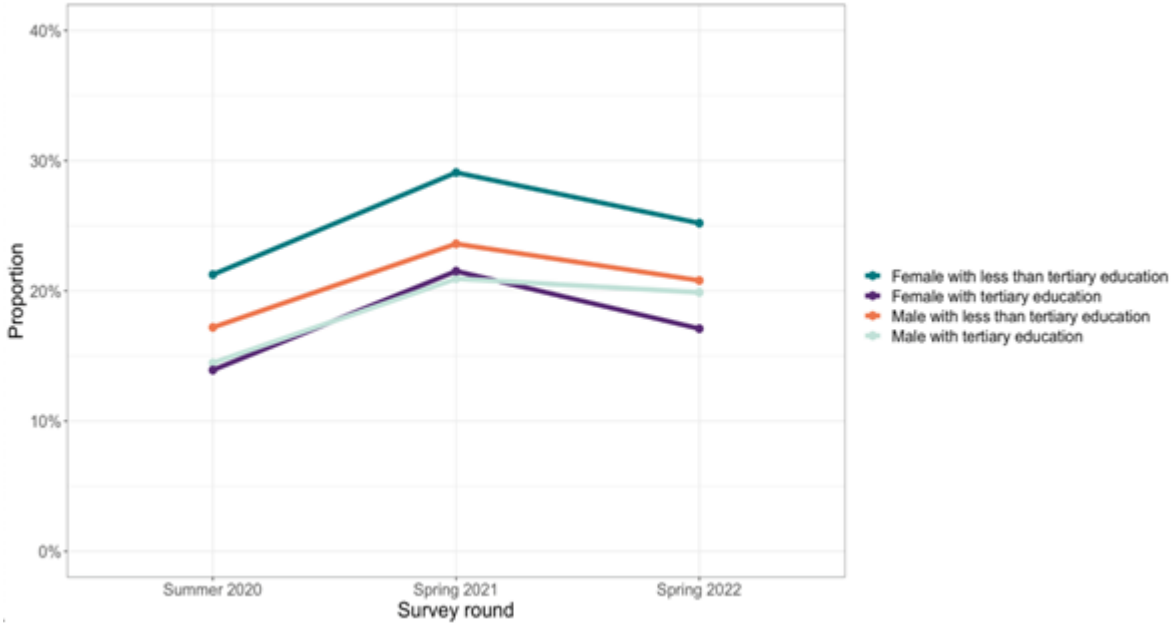
Bu, F., Steptoe, A., & Fancourt, D. (2020). Who is lonely in lockdown? Cross-cohort analyses of predictors of loneliness before and during the COVID-19 pandemic. Public Health, 186, 31–34. https://doi.org/10.1016/j.puhe.2020.06.036

Ernst, M., Niederer, D., Werner, A. M., Czaja, S. J., Mikton, C., Ong, A. D., Rosen, T., Brähler, E., & Beutel, M. E. (2022). Loneliness before and during the COVID-19 pandemic: A systematic review with meta-analysis. The American Psychologist, 77(5), 660–677. https://doi.org/10.1037/amp0001005

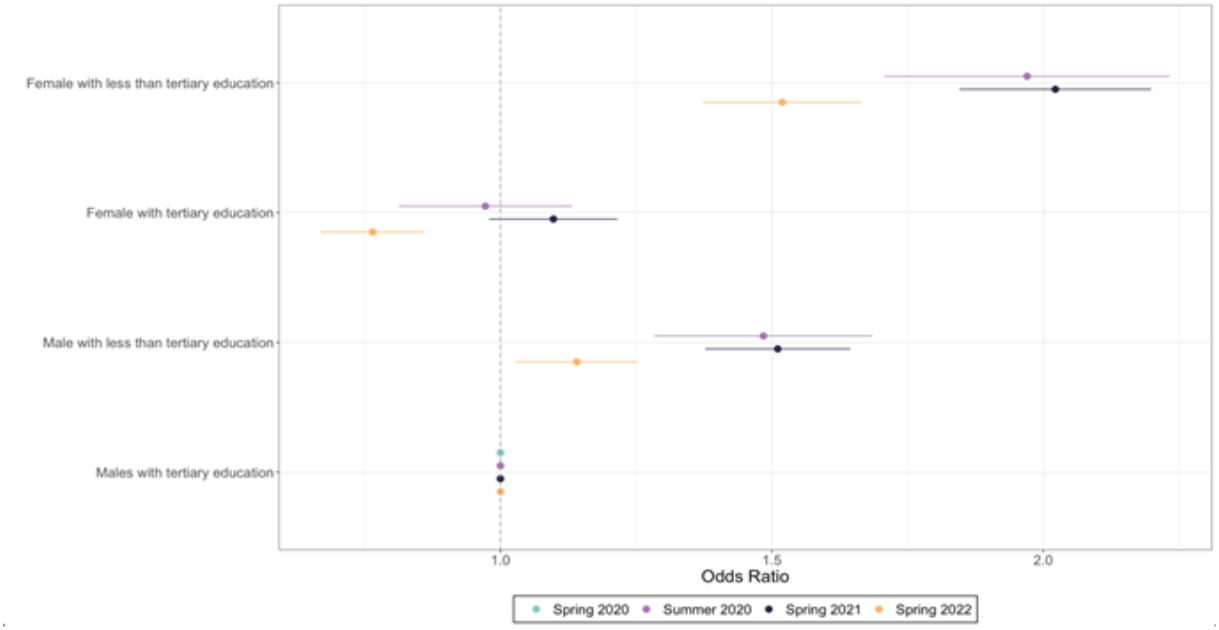
Lampraki, C., Hoffman, A., Roquet, A., & Jopp, D. S. (2022). Loneliness during COVID-19: Development and influencing factors. PLOS ONE, 17(3), e0265900. https://doi.org/10.1371/journal.pone.0265900

significant role in differences within this indicator: both women and men with a lower educational attainment were much more likely to say they felt left out of society compared with high educated males.
It is hard to pinpoint exactly what might be causing this difference, but it could be a mix of various factors such as the increase in care burden, the deterioration of work-life balance, and the precarious employment conditions created by the pandemic making people feel more excluded.

Figure 3.3.4
(a) Proportion of people saying they felt left out of society by intersectional group and survey round



(b) Odds of feeling left out from society during the pandemic, controlling for age and country of residence. Reference category: males with tertiary education



Care and household work

School closures and the unavailability of non-familial childcare services increased the workload of unpaid care for families. This workload fell primarily on women.[54] Several studies have shown that mothers reported to have spent more time on domestic tasks and on childcare[55], although in some cases a more equal division of these tasks was reported, especially when men started working from home.[56] While these studies have focused on the division of household work and childcare at one point in time during the pandemic, our analysis aims to highlight differences in time spent on domestic tasks between women and men with different socio-economic backgrounds during different moments of the pandemic.

Starting from summer 2020, the Eurofound survey asked three questions related to care and household work: time spent on caring for children or grandchildren, time spent on

54 Adams-Prassl, A., Boneva, T., Golin, M., & Rauh, C. (2020). Inequality in the impact of the coronavirus shock: Evidence from real time surveys. Journal of Public Economics, 189, 104245. https://doi.org/10.1016/j.jpubeco.2020.104245

Sevilla, A., & Smith, S. (2020). Baby steps: The gender division of childcare during the COVID-19 pandemic. Oxford Review of Economic Policy, 36(Supplement_1), S169–S186. https://doi.org/10.1093/oxrep/graa027

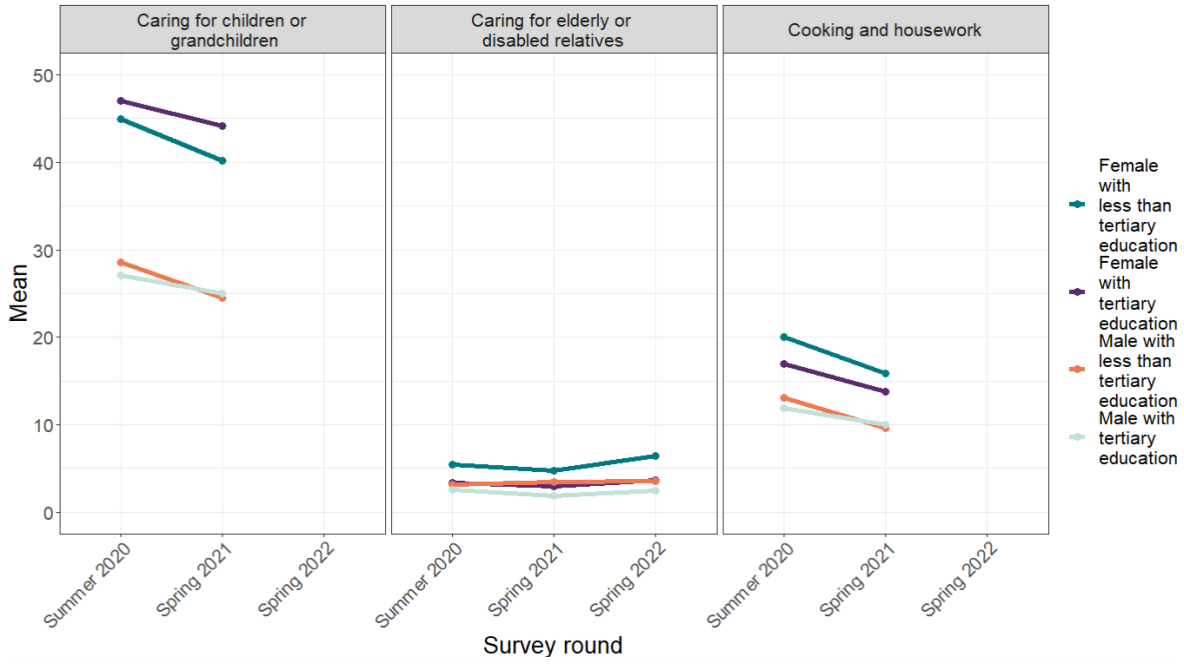
55 (see, for example, Zamarro, G., & Prados, M. J. (2021). Gender differences in couples' division of childcare, work and mental health during COVID-19. Review of Economics of the Household, 19(1), 11–40. https://doi.org/10.1007/s11150-020-09534-7)

56 Chung, H., Seo, H., Birkett, H., & Forbes, S. (2022). Working from Home and the Division of Childcare and Housework among Dual-Earner Parents during the Pandemic in the UK. Merits, 2(4). https://doi.org/10.3390/merits2040019

elderly or disabled relatives, and time spent on cooking and housework activities. For two of these questions, it was not possible to analyse the last round because of the small number of respondents or because the question was not asked. For the indicator "time spent on caring for children or grandchildren", we selected only respondents with children (0-17 years old) living in the household, and in the model we controlled for number and age of children (in addition to age and country of residence), because these are relevant factors in explaining differences in childcare. For the indicators "time spent on caring for elderly or disabled relatives" and on "cooking and housework" we controlled for household size (in addition to age and country of residence). Household size indicates how many people are reported to live in the same household of the respondents, and this is an important factor to control for because the respondent might share care activities with other members of the household.

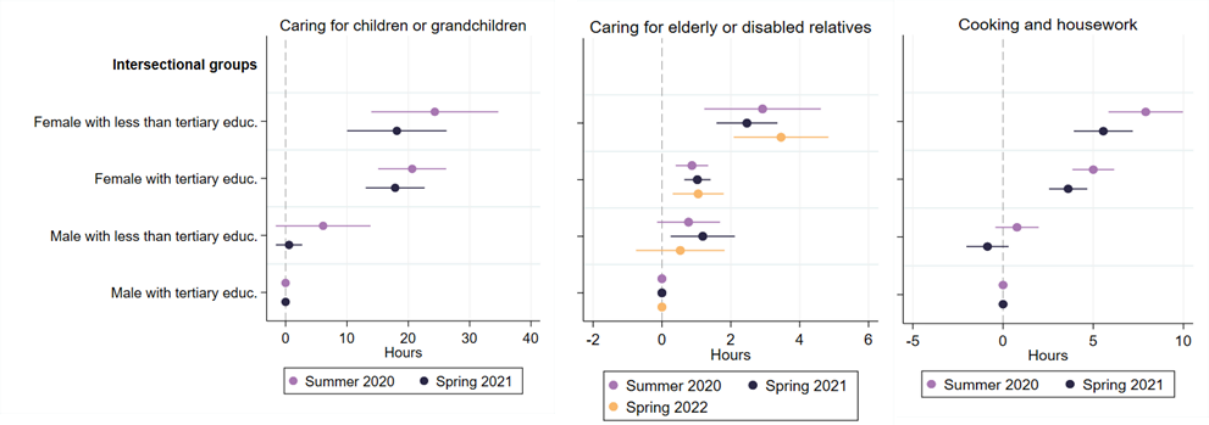
Looking at the average number of weekly hours of unpaid childcare reported by the intersectional groups for summer 2020 and spring 2021, higher educated females reported the highest number of hours in both waves (Figure 3.3.5(a), first box). We observe no significant differences between higher and lower educated females in the two rounds. For all groups, a small decline is observed between summer 2020 and spring 2021. The models show that after adjusting for age and country of residence, all females reported spending more than 20 hours weekly compared to high educated males in summer 2020, and around 18 hours weekly in spring 2021 (Figure 3.3.5(b), first box).

Figure 3.3.5
(a) Mean hours per week spent on caring and housework activities by intersectional group and survey round.



Note: For "caring for children or grandchildren", the sample includes only respondents with children 0-17 years old living in the household.

(b) Adjusted mean hours per week spent on caring and housework activities by intersectional group and survey round, controlling for age, country of residence, number and age of children in the household (for "caring for children or grandchildren"), and controlling for age, country of residence and household size (for "caring for elderly or disabled relatives" and "cooking and housework). Dots are coefficients of multilevel models. Horizontal bars are 95% confidence intervals. Reference category: male with tertiary education.



Note: For "caring for children or grandchildren", the sample includes only respondents with children 0-17 years old living in the household.

Compared to the average time for childcare, the average weekly hours spent on caring for elderly and disabled relatives is lower for all the intersectional groups (Figure 3.3.5(a)). Women with less than tertiary education reported having spent more hours compared to the other groups, reaching more than 6 hours a week in spring 2022. The middle box of Figure 3.3.5(b) shows that after adjusting for age, household size and country of residence, education still plays an important role in caring for elderly or disabled relatives, especially among women. In three rounds, the difference between higher educated males and females was less than one hour per week, and the difference between higher educated males and lower educated females ranges between 2.5 to 3.5 hours depending on the wave. Only in spring 2021 was the difference between males with and without tertiary education significant. Despite not constituting a large number of hours weekly, the time dedicated to caring for elderly or disabled relatives by women with less than tertiary education might have affected their wellbeing and work-life balance.

The right-hand box of Figure 3.3.5(a) shows a decrease in the number of hours spent on cooking and housework for all the intersectional groups between summer 2020 and spring 2021, with lower educated females spending more hours on these activities during this period. This decrease may be, once again, related to the relaxation of the restrictions resulting in people spending less time at home. The models show that after adjusting for age, household size and country of residence, lower educated females

reported spending almost 8 and 5.5 hours weekly more compared to high educated males respectively in summer 2020 and in spring 2021 (Figure 3.3.5(b), right-hand box). For females with tertiary education, the difference with higher educated males was 5 and 3.6 hours weekly.

Trust in institutions

The pandemic has posed a new challenge to existing democracies, because national governments had to deal with a trade-off between containing the number of deaths and avoiding economic crises.[57] In this context, analysing the trend in trust that intersectional groups reported throughout the pandemic provides a picture of how governments' decisions have been seen in the eyes of citizens.

Some scholars have referred to the "rally-around-the-flag" effect to explain the higher support for government and political leaders at the beginning of the pandemic, which then diminishes over time.[58] Eurofound data seem to support this effect: trust in national governments has decreased between spring 2020 and spring 2022 (Figure 3.3.6(a), first box). Trust in the European Union follows a similar trend, with a small spike in summer 2020 for all the intersectional groups (Figure 3.3.6(a), middle box). Figure 3.3.6(b) shows that both for trust in governments and in the EU, there is a clear educational divide, with lower educated males and females reporting less trust compared to higher educated males (mean scores range from 0.5 to 1.2 point lower compared to the latter depending on the survey round). The difference between males and females with tertiary education is almost never significant except for spring 2022, when a little gap seems to have opened between these two intersectional groups. The difference in the mean scores of both trust in governments and in the EU for that round was about 0.5 points higher for females with tertiary education. A decline in trust for these two institutions, which were responsible for the management of the crisis and the recovery, seems to contribute to citizens reluctance to follow COVID-19 rules, however political consequences are still uncertain.[59]

During a pandemic, it is also crucial to maintain trust in the healthcare system, because support and compliance with public health measures such as stay-at-home orders or vaccinations depend on trust.[60] As shown in the last box of Figure 3.3.6(a), trust in

[57] Bol, D., Giani, M., Blais, A., & Loewen, P. J. (2021). The effect of COVID-19 lockdowns on political support: Some good news for democracy? European Journal of Political Research, 60(2), 497–505. https://doi.org/10.1111/1475-6765.12401

[58] Johansson, B., Hopmann, D. N., & Shehata, A. (2021). When the rally-around-the-flag effect disappears, or: When the COVID-19 pandemic becomes "normalized." Journal of Elections, Public Opinion and Parties, 31(sup1), 321–334. https://doi.org/10.1080/17457289.2021.1924742

[59] Bol et al., 2021.

[60] Beller, J., Schäfers, J., Haier, J., Geyer, S., & Epping, J. (2022). Trust in Healthcare during COVID-19 in

healthcare system across Europe was higher than the average scores of trust in government or the EU, starting from a mean of almost 7 for higher educated men in the first round of the Eurofound survey. However, as for the other two items, trust has declined in the course of the pandemic, with a remarkable drop between summer 2020 and spring 2021 especially for the lower educated respondents.

Other factors than the pandemic might have affected the lower levels of trust registered in the last survey round, such as the war in Ukraine and the following inflation and rise in energy prices.[61]

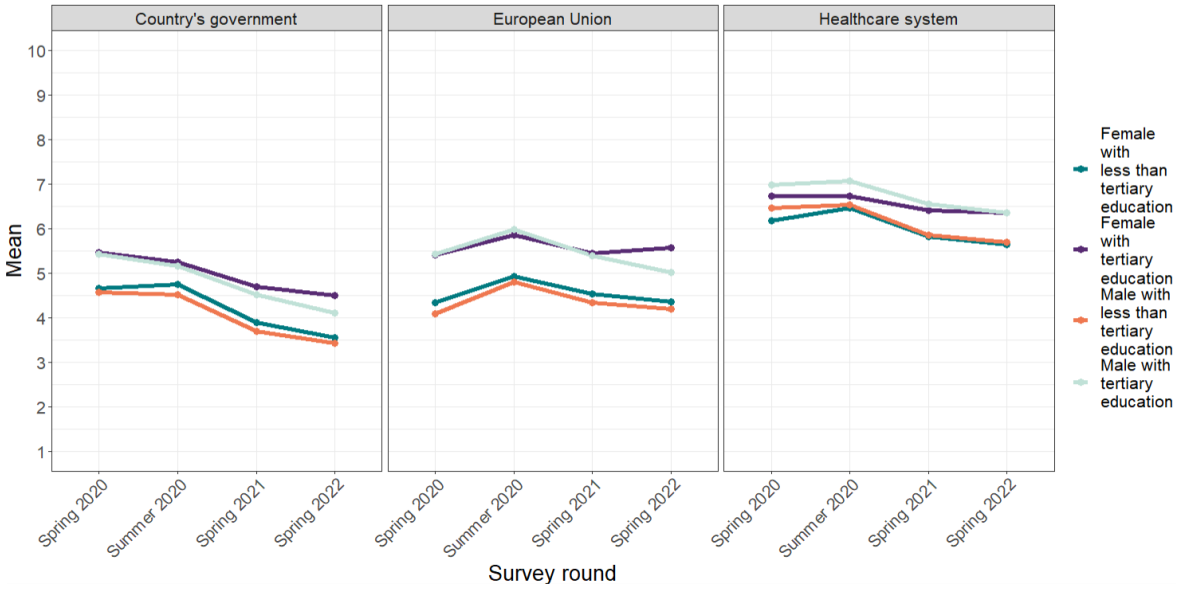
Europe: Vulnerable groups trust the least. Journal of Public Health. https://doi.org/10.1007/s10389-022-01705-3

Chan, H. F., Brumpton, M., Macintyre, A., Arapoc, J., Savage, D. A., Skali, A., Stadelmann, D., & Torgler, B. (2020). How confidence in health care systems affects mobility and compliance during the COVID-19 pandemic. PLOS ONE, 15(10), e0240644. https://doi.org/10.1371/journal.pone.0240644

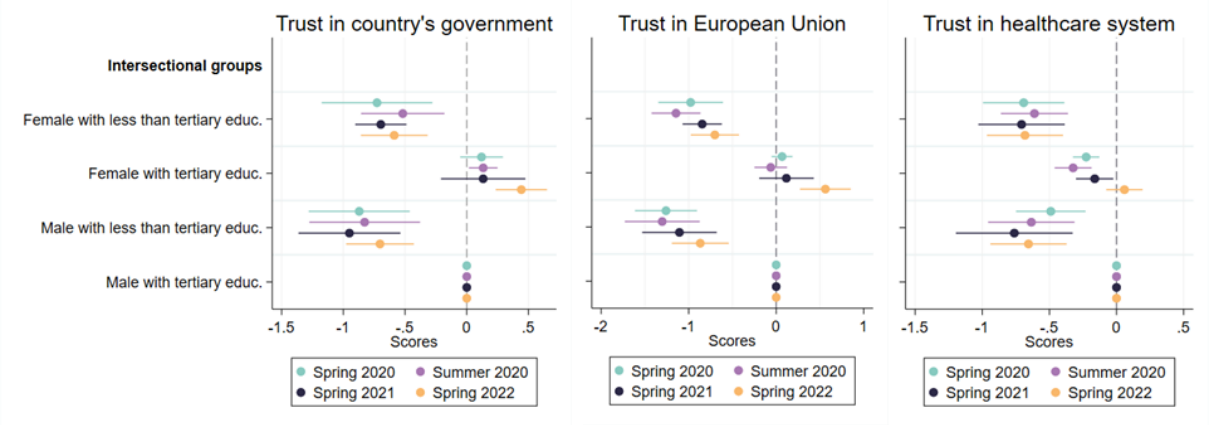
61 Eurofound, 2022.

Figure 3.3.6

(a) Mean scores of trust in different institutions by intersectional group and survey round. Higher scores indicate higher trust.



(b) Adjusted mean scores of trust in different institutions by intersectional groups, controlling for age and country of residence. Dots are coefficients of multilevel models. Horizontal bars are 95% confidence intervals. Reference category: male with tertiary education.



Perceived health and resilience

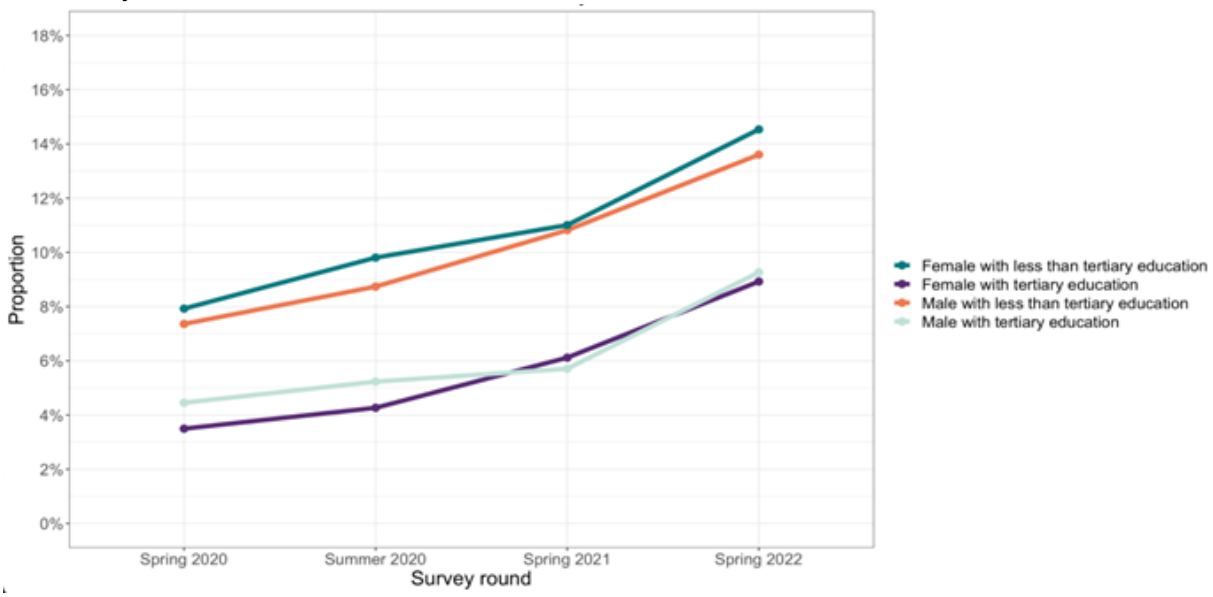
Self-assessed general health has been found to be an accurate indicator of a persons' overall wellbeing and allows us to understand the health of individuals through an easily observable indicator.[62] Figure 3.3.7(a) shows the prevalence of those rating their overall

62 Miilunpalo, S., Vuori, I., Oja, P., Pasanen, M., & Urponen, H. (1997). Self-rated health status as a health measure: The predictive value of self-reported health status on the use of physician services and on mortality

health as either poor or very poor in four different moments in time. The steep climb observed in all intersectional groups is an interesting phenomenon, and an important indicator of the fact that the pandemic made everyone worse off, regardless of sex or socioeconomic status. However, we also observe a clear educational gap, with those with a lower educational level reporting much higher prevalence of lower general health in all waves. Levels between males and females of the same educational level seem to be rather similar, and in Figure 3.3.7(b) we observe that for females with a tertiary degree, only the difference in spring 2020 is statistically significant. In this round, they were slightly less likely to report a lower overall general health than higher educated men. However, when we compare men with a tertiary degree with both women and men with less than a tertiary degree, the latter are 1.5 to 2 times more likely to report a lower level of general health, revealing educational attainment to be the most significant factor in predicting self-assessed general health.

Figure 3.3.7

(a) Proportion of people reporting poor or very poor general health status by intersectional group and survey round

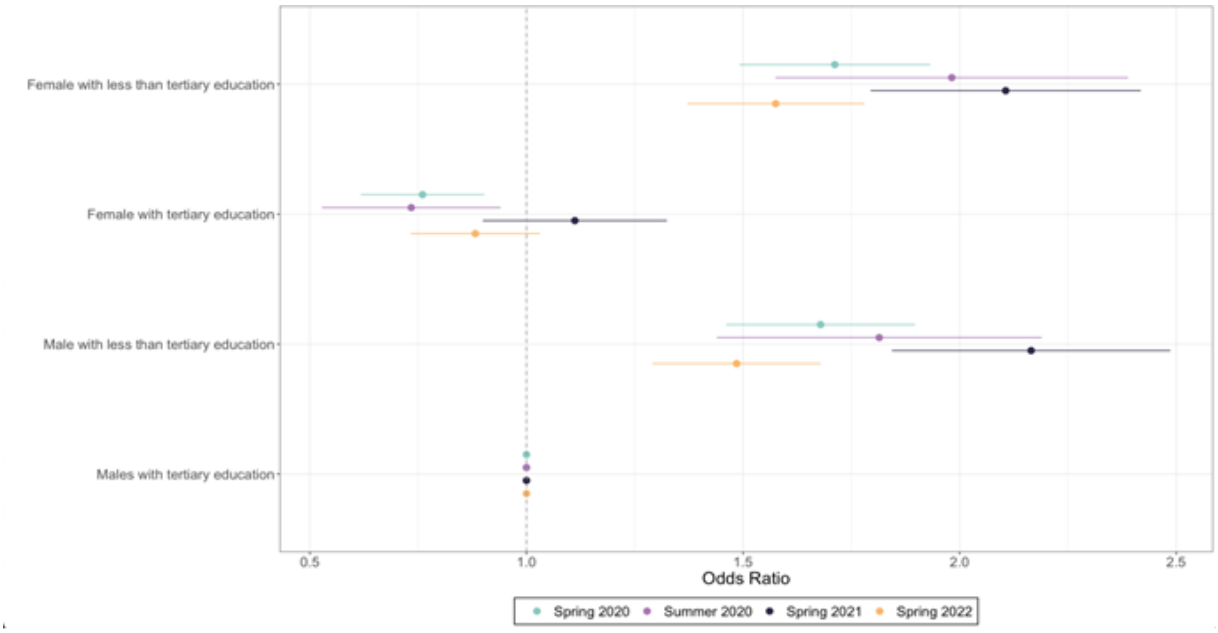


(b) Odds of reporting an overall poor or very poor general health during the pandemic, controlling for age and country of residence. Reference category: males with tertiary education

in the working-age population. Journal of Clinical Epidemiology, 50(5), 517–528. https://doi.org/10.1016/S0895-4356(97)00045-0

Williams, G., Di Nardo, F., & Verma, A. (2017). The relationship between self-reported health status and signs of psychological distress within European urban contexts. European Journal of Public Health, 27(suppl_2), 68–73. https://doi.org/10.1093/eurpub/ckx008

Wuorela, M., Lavonius, S., Salminen, M., Vahlberg, T., Viitanen, M., & Viikari, L. (2020). Self-rated health and objective health status as predictors of all-cause mortality among older people: A prospective study with a 5-, 10-, and 27-year follow-up. BMC Geriatrics, 20(1), 120. https://doi.org/10.1186/s12877-020-01516-9



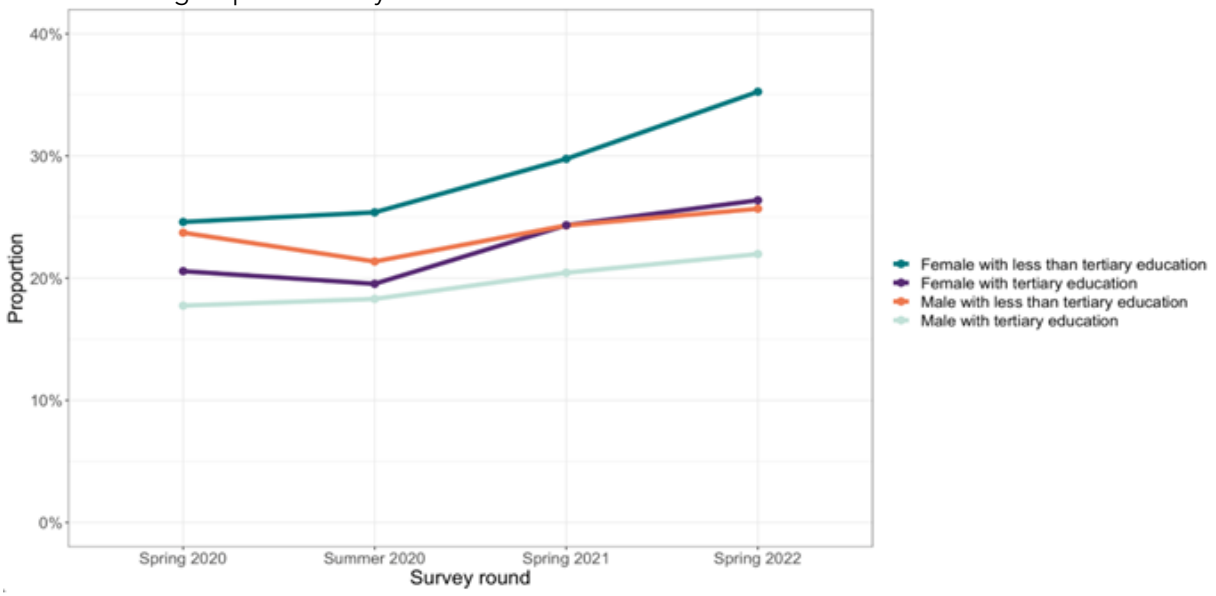
Being in good, overall general health can help people face problems and adversities. Resilience is an important indicator of overall wellbeing, and helps people feel closer to their community, more fulfilled, and therefore is closely related to all the other indicators explored previously such as employment status, social inclusion or perceived health.[63] Resilience has also been a central theme within the RESISTIRÉ project, which has investigated this aspect of our society's handling of the pandemic through the analysis of better stories and good social practices across Europe.

Figure 3.3.8(a) explores one of two indicators available for resilience in the Eurofound survey: the capacity of dealing with important problems that come up in life, showing the prevalence of those who had low resilience. Here, gender differences present an interesting lens of analysis. Women seem to be struggling the most in all the rounds, even compared to males with a lower educational attainment. This is consistent with our findings on employment status, work-life balance, care and housework, and general health: the increased burden faced by women in the pandemic has had a profound effect on their ability to face problems, which seem to be generally worsened over the past three years of the pandemic. In Figure 3.3.8(b) we see that, controlling for age and country of residence, females are more likely to have lower resilience compared to males with a tertiary degree, in all the survey rounds. The odds of lower educated females to show low resilience compared to higher educated males are almost 2 in the last two rounds. A gradual recovery from the pandemic does not seem to have made females with a lower socio-economic status more resilient.

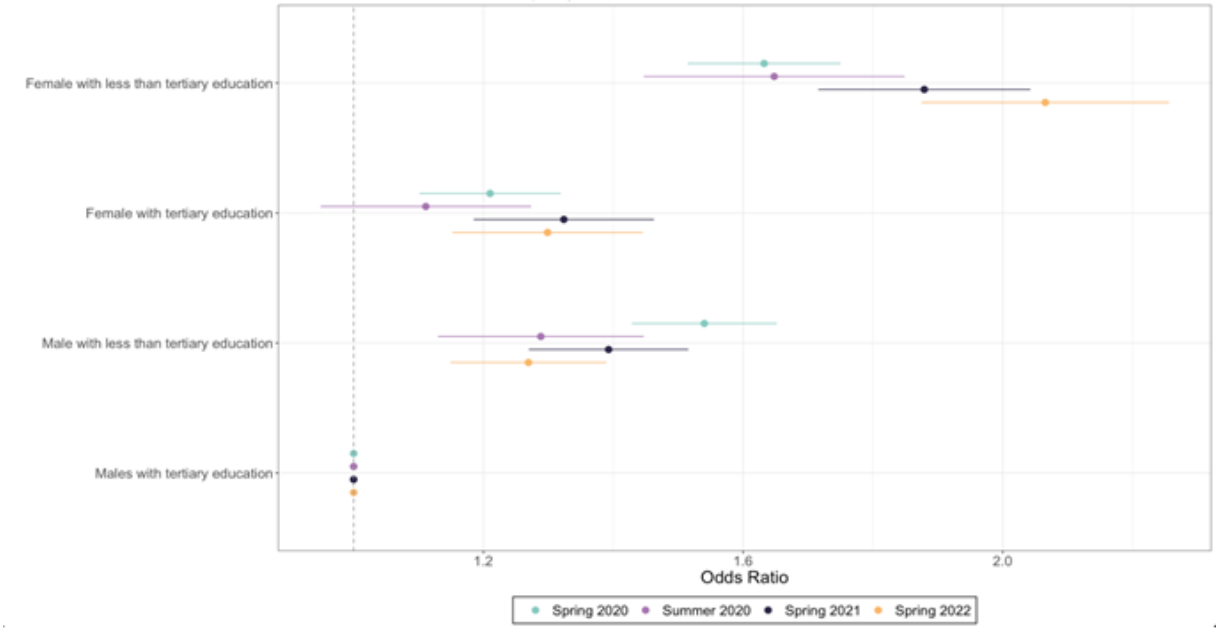
[63] Joossens, E., Manca, A. R., & Zec, S. (2022). Measuring and understanding individual resilience across the EU. JRC. https://doi.org/10.2760/434622

Figure 3.3.8

(a) Proportion of people who say they have a hard time dealing with problems in their lives by intersectional group and survey round



(b) Odds of reporting a lower level of resilience during the pandemic, controlling for age and country of residence. Reference category: males with tertiary education



3.4 Conclusions

The analysis of European data collected from the beginning of the pandemic until spring 2022 provides useful insights into how the pandemic and the related policies implemented by national governments have impacted the life of four different intersectional groups: females with less than tertiary education, females with tertiary education, males with less than tertiary education and males with tertiary education. Looking at the evolution of these groups throughout the crisis allows to investigate how inequality grounds – sex and education, in this case – can overlap and contribute to worsening outcomes for people in more disadvantaged socio-economic positions. Through our analysis of the data from the Eurofound e-survey "Living, working, and COVID-19" we were able to assess the experience of these groups in four domains that have been impacted by the pandemic: employment, work-life balance, and inclusion; care and household work; trust in institutions; and perceived health and resilience.

Generally, looking at the situation after 3 years from the beginning of the COVID-19 pandemic, we observe some signs of slow recovery for all the intersectional groups: there has been a decline in the proportion of people who said they lost their job during the pandemic (however this is less the case for lower educated women), and feelings of social exclusion were less widespread in spring 2022 than in spring 2021. However, for all the other indicators investigated at European level, we observe a generalised worsening, which was more or less gradual during the two years but reached a peak in spring 2022, regardless of gender or socio-economic position. While we expected to see some improvements in people's resilience and wellbeing as measures to stop the spread of the virus were relaxed across Europe, this was not confirmed by our data analysis. This was also the case for perceived health status, as more people reported having worse health two years after the outbreak, and work-life balance issues seem to have increasingly played a role in people's lives. We also observe a general decline in trust in public institutions across European countries for all four intersectional groups. This generalised deterioration of conditions – regardless of one's socio-economic position – is most likely due to an overlapping of ongoing multiple crises in spring 2022, catalysed by the invasion of Ukraine which started in late February 2022 and the subsequent inflation and energy crisis that followed.[64]

Regarding inequalities, our findings suggest that while in some domains a clear gender divide is observed, other domains are characterised by a socio-economic divide. A gender divide is observed for the domains of work-life balance, care and household tasks: throughout the pandemic, more women – both higher and lower educated – than men have felt the burden of doing household tasks after work; the same holds true for time spent on childcare, cooking and housework. Gender differences in these areas are not novel, and the COVID-19 crisis seems to have maintained them at the same level

[64] Eurofound, 2022.

than prior to the crisis. On the other hand, some indicators have highlighted how lower educated people – both men and women – were increasingly negatively impacted during the pandemic. More specifically, a divide based on socio-economic status rather than on gender has been observed in job loss, self-reported health and trust in institutions.

Looking at the intersection between gender and education, we can see that lower educated women have been in the worse situation throughout the pandemic, because they are burdened with a double disadvantage. They reported the highest proportion of job loss in almost all the survey rounds, experienced the greatest difficulties in combining household jobs with paid work and they spent more time caring for elderly and/or disabled relatives, and on housework. Feelings of social exclusion, poor perceived health and lower resilience were also more prevalent among lower educated women compared to other groups.

All the indicators we have investigated are closely linked to one another and are important determinants to people's health and wellbeing. We observe a close relationship in the trend of proportion of respondents reporting social or economic struggles, and increases in poor general self-reported health. Our findings contribute to highlight the multifaceted impact which the public health emergency has had in Europe and show us not only that pre-existing inequalities have made the life of those less well-off much harder, but also that differences have likely widened since the beginning of the pandemic. The European recovery has slowly started to show some signs of improvements in people's wellbeing, but the concomitance of multiple crises has hindered progress. Our findings hope to put under the limelight the importance of intersectional analysis when developing future social policies, which should always consider the importance of universality and proportionality to properly tackle inequalities. The key findings for each of the areas analysed are reported below.

Employment, work-life balance, and inclusion

- The proportion of people who lost their job increased at the beginning of the crisis to peak in spring 2021 for all intersectional groups except for higher educated females, who reached highest levels of job loss in summer 2020. In spring 2022, the proportion of people who lost their jobs was comparable to spring 2020 for all groups except for lower educated females whose proportion increased from 6% to 9%.
- Our findings suggest that inequalities between lower educated females and higher educated males in reporting job loss may have increased in spring 2022 compared to the beginning of the pandemic.
- Irrespective of the intersectional group, almost one fourth of respondents reported work-life balance issues (feeling too tired after work to do household jobs) at the beginning of the crisis, with a general increase of this burden throughout the pandemic.
- A higher proportion of females (both higher and lower educated) compared to

males indicated feeling too tired after work to do housework, and this gender gap has remained quite stable across the survey rounds.

- On the contrary, neither gender differences nor educational differences have been observed for the feeling that the job prevented people from giving the time they wanted to their family.
- Feelings of social exclusion were highest in spring 2021, for all the intersectional groups. However, educational differences are observed as lower educated males and females were more likely to feel left out from society compared to higher educated males, yet these inequalities seem to have decreased in spring 2022 mainly due to a worsening situation among higher educated males as the pandemic progressed.

Care and household work

- On average, the hours dedicated weekly to childcare were much higher compared to the hours dedicated to caring for elderly or disabled relatives and to cooking and housework.
- High and low educated women with children up to 17 years old reported to have dedicated more time on the care of their children or grandchildren in both summer 2020 and spring 2021, with a small decrease between the two rounds. On average, lower educated females spent between 18 and 24 hours more compared to higher educated males in each of the survey rounds.
- Time dedicated weekly to caring for elderly or disabled relatives has remained quite stable between summer 2020 and spring 2022. Lower educated females spent the most time on this task and on average spent almost 3 hours per week more than higher educated males in each of the rounds.
- Females also spent more time weekly on cooking and housework compared to males, with a decrease between summer 2020 and spring 2021. Lower educated females spent between 5.5 and 8 hours more per week on these tasks than higher educated males in each of the rounds.

Trust in institutions

- A "rally-around-the-flag" effect seems to have taken place in the beginning of the pandemic as people's trust in different institutions was higher than after two years of COVID-19.
- An educational gradient is observed for trust in the EU and, to a lesser extent, for trust in national governments. Lower educated females and males reported lower levels of trust in national governments and in the EU compared to their higher educated counterparts.
- Respondents reported higher levels of trust in the healthcare system compared to trust in political institutions. Education seemed to also play a role in this case, since lower educated males and females reported less trust compared to higher educated males in each of the rounds.

Perceived health and resilience

- Throughout the pandemic, we observed an increase in the proportion of people reporting poor general health, with a clear educational divide: females and males with lower education have a higher proportion of poor health than their higher educated counterparts.
- Overall, the proportion of people reporting an overall poor general health has almost doubled from 2020 to 2022, regardless of socioeconomic status or gender.
- All intersectional groups had a significant proportion of respondents reporting a low level of resilience and a hard time dealing with problems which arose in their lives. While at very different magnitudes, it seems that this proportion has increased for all groups between the beginning of the pandemic and Spring 2022.

Limitations

The presented analysis offers a way to observe the COVID-19 pandemic through an intersectional perspective, giving a glimpse of how socioeconomic status and gender affect the way we live and our wellbeing. Inequalities are deeply rooted within our societies and closely intertwined with one another. This work offers new findings and conclusions but contains several limitations which should be kept in mind when interpreting results. The Eurofound "Living, Working, and COVID-19" survey is a rich database and precious resource, but remains an online survey which has an heterogenous pool of respondents. While Eurofound has controlled and adjusted its data accordingly, this aspect should be kept in mind when interpreting data representative of the whole European population. The results we present are not disaggregated by country, but only by intersectional groups. While this makes interpretation of trends clearer, it is likely that the results may have varied widely between different countries. Our timeseries analysis has shown differences in trends between four distinct periods of time that followed the Eurofound's survey rounds of data collection. The last round started shortly after the 2022 Russian invasion of Ukraine, which likely severely increased levels of anxiety and stress of people. Finally, the data interpretation which we give within this report follows a rigorous methodology for intersectional analysis, but is just one of many different ways in which inequalities can be looked at. We offer groupings based on reported educational attainment and sex but not age which might have offered different results and trends from the one presented here.

Section 4: RESISTIRÉ Mobile and Web App

By Audrey Harroche, Alexis Still, Charikleia Tzanakou, Anne Laure Humbert, Clare Stovell

4.1 Introduction

As part of quantitative research activities in the RESISTIRÉ project, a free web and mobile application (app) survey - available in both Android and iOS mobile operating systems - has been designed to address the knowledge gaps identified through RESISTIRÉ's research agenda. Quantitative data availability was identified as a key challenge in understanding how COVID-19-related policies impacted inequalities across Europe. While European and national-level RAS have been successful in mitigating some of these gaps, there remains a need for more granular and comparable data, especially with regard to intersectional minoritised groups. The findings from RESISTIRÉ's three cycles have indicated that quantitative intersectional analysis is limited outside of small-scope initiatives, with most inequality grounds being considered independently from each other. The RESISTIRÉ Study App and web survey was developed to meet these challenges and collect data through an intersectional lens.

The survey was developed during cycle 1 in close collaboration with RESISTIRÉ's partners informed by earlier project outputs and deliverables (insights report, research agenda, factsheets). Questions have been developed to address the knowledge gaps in the domains of care, work and pay, working remotely, community and safety, complemented with a mandatory module on demographic characteristics (New Starter questions) which would allow analysis from a gender+ perspective. During cycle 2, questions were refined and streamlined while new questions were developed to explore individual and collective coping strategies that can lead to better stories. Survey navigation paths and logic was finalised and the content of the survey was translated into fourteen languages. The survey was launched online through both a free mobile app and a web page to reduce the potential exclusionary aspects of a mobile phone application. The third cycle was dedicated to testing the survey - across experts, project partners and the public - the survey launch, its dissemination, and the initiation of data analysis.

The RESISTIRÉ Study App and web survey launch was carried out in two phases. Many RESISTIRÉ domains of gender+ inequalities were treated as a part (referred to as a module) of the overall study. Socio-demographic information along with three modules covering employment, care, and pay were released during the first phase of the app implementation, on the 11th of November 2022. The second phase included two modules, one dedicated on working conditions from home and one on community and safety. These modules were released on the 22nd of December. The participants were alerted through a notification on their mobile phones and via email that new modules were available. Respondents were also encouraged to promote and disseminate this

survey among their networks.

Across the cycles, especially through the Open Studios and the RAS collaborations, the RESISTIRÉ project has generated engagement from a variety of CSOs and stakeholders to whom the app was shared with. A social media campaign was led on Twitter, LinkedIn, Facebook and Instagram by RESISTIRÉ's communication team, engaging with project followers, sister projects, networks of project partners and other stakeholders. To encourage uptake of the survey, communications messages focused on its relevance to help improve responses to future crises. Several rounds of posts were created to promote the release of new modules, each emphasising a different topic (work, caring responsibilities, etc). To enhance the response rate from the public, we also used Meta Facebook advertisements targeting various countries[65], taking into consideration the population size and geographical diversity and reach (cost/000) to optimise the budget allocation. We worked in 2 waves to allow for further optimising in between waves for better conversion (cost per complete). In both paid and organic social media content as well as the advertising, several visuals were created to target different audiences, i.e. a picture of a woman looking at her phone on the bus to address general public, and a doctor in a practice setting to target frontline workers. For the second advertising wave the visuals were made dynamic to optimise visual impact online.

The participant recruitment is still ongoing and our efforts will intensify over the next few months to improve the participation rate that would allow us to conduct gender+ analysis. It is also crucial to capture responses from hard-to-reach and vulnerable groups during the pandemic. In the following sections, we provide an overview of the app's development and implementation, a short preliminary analysis of the data collected up to the 10th of February – since the survey is still open-, an outline of benefits and challenges of a using a mobile app and web survey, and future plans for the survey.

4.2 Survey development and implementation

The methodology of the app's development, including the platform used, the logic it follows, and the translation process, was presented in the cycle 2 deliverable.[66] This section delves into more detail regarding the survey and its preliminary results.

The survey has been developed in relation to RESISTIRÉ domains of gender+ inequalities and is structured around the following five modules: employment, care, pay, working from home, community and safety. The employment, pay, and working from home modules research the gender+ inequalities domains of work and labour market as well as economy, and gender pay and pension gap. The care module addresses the

[65] Due to budget limitations, not all European countries were targeted through Facebook advertisements.
[66] Stovell et al., 2022.

gender care gap, while the community and safety module speaks to gender-based violence and the environmental justice.

The questions within the modules were developed in close collaboration with partners using the RESISTIRÉ's research agenda questions. Questions were also designed to address changes in practices, appreciations, and experiences over time. For each module, the survey collects data on the participant's current situation, their experience before and during the pandemic and how they experience, feel and envision about their future. Addressing different points in time provides information on people's personal evolution and also facilitates an understanding of their agency. Specific questions were also included to understand individual and collective coping mechanisms.

Phase 1 modules

Employment

The employment module collects information on individuals' employment experience, capturing data on occupational and sectoral data, contractual conditions, working from home arrangements and access to financial support during COVID-19 pandemic. On the basis of their employment status, we developed tailored questions for employees, self-employed, unemployed, retired and individuals in training/education (for a list of the questions asked please see Appendix 4.2).

Care

The care module focuses on information about the care work performed by the participants, their access to care support, and how the COVID-19 pandemic affects these elements. We also looked at domestic tasks and care responsibilities and how they were divided within the respondents' households (for a list of the questions asked please see Appendix 4.3).

Pay

The pay module enquires about participants' financial situation compared to before the pandemic. It collects data regarding their income, savings, need for financial support and perceptions of their current and future financial situation. We also asked about how the pandemic influenced their career progression and performance at work. There were also tailored questions for finances and income on the basis of employment status (e.g., retired (for a list of the questions asked please see Appendix 4.4).

Phase 2 modules

Working from home

The 'working from home' module focuses on the participants' experiences with remote work. It includes questions about the frequency of teleworking, the conditions under which it is performed, and the effect it has on both physical and mental health as well as productivity. This module also gathers information on the participants' attitudes towards this mode of work (for a list of the questions asked please see Appendix 4.5).

Community and Safety

The 'community and safety' module captures data about participants' living and social environments as well as their perception of safety during the pandemic. It also enquires about their direct and indirect experiences with violence and the support they received in these situations (for a list of the questions asked please see Appendix 4.6).

4.3 Preliminary analysis and visualisation of the survey data

This section provides a short preliminary analysis and visualisations of the survey data collected up to 10th February 2023. It starts with socio-demographic data, followed by a presentation of selected questions in relation to employment, pay and care (captured in phase 1). In each module, some questions are mandatory to allow for immediate visualisation of the survey results for respondents to view after they complete the survey. These mandatory questions have the best response rate. Questions from the modules on working from home and community and safety (phase 2) modules are not available yet due to insufficient participation in this part of the survey.

Overall, 133 participants completed the survey, and the sociodemographic data collected through the mandatory New Starter questions provide a description of this sample according to regular background information, such as country of residence and age, as well as characteristics that enable intersectional analysis, such as gender identity, sexual orientation, and ethnicity. Respondents come from the UK (25), followed by Sweden (17), Germany (15), France (14), Turkey (14), Poland (9), Serbia (8), Greece (7), Ireland (5), Italy (5), Spain (4), Belgium (3), Czech Republic (3), Denmark (2), Portugal (1) and Romania (1).

Figure 4.3.1: Survey participation breakdown by country

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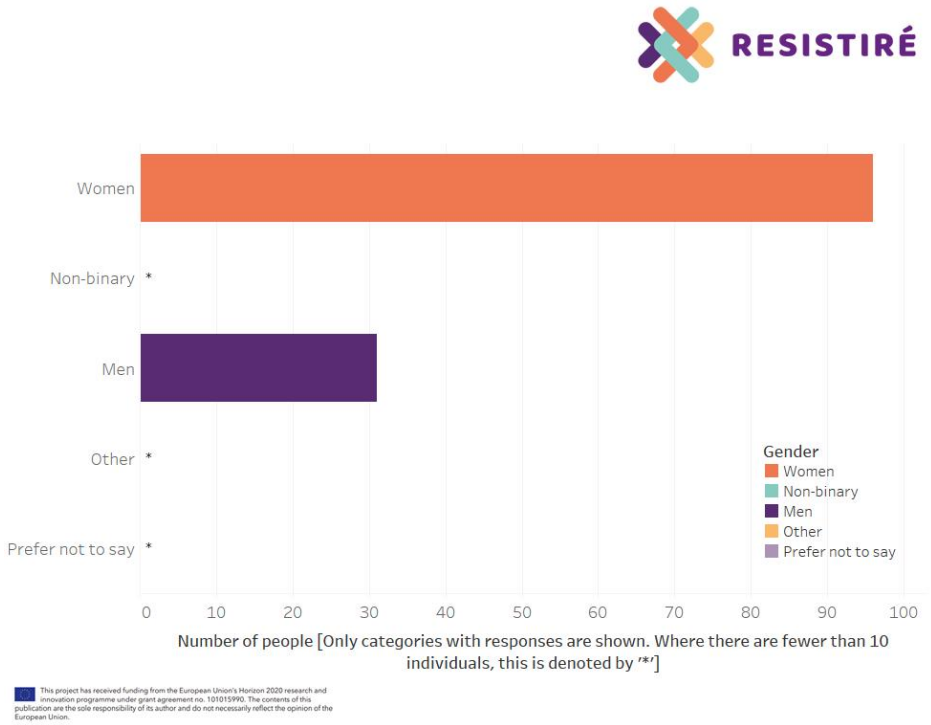
The majority of respondents are women (96), with a further 31 respondents who identified as men and fewer than ten participants who identified as non-binary, preferred not to disclose their gender identity, or identified with another gender identity.

Figure 4.3.2: Number of participants by gender identity



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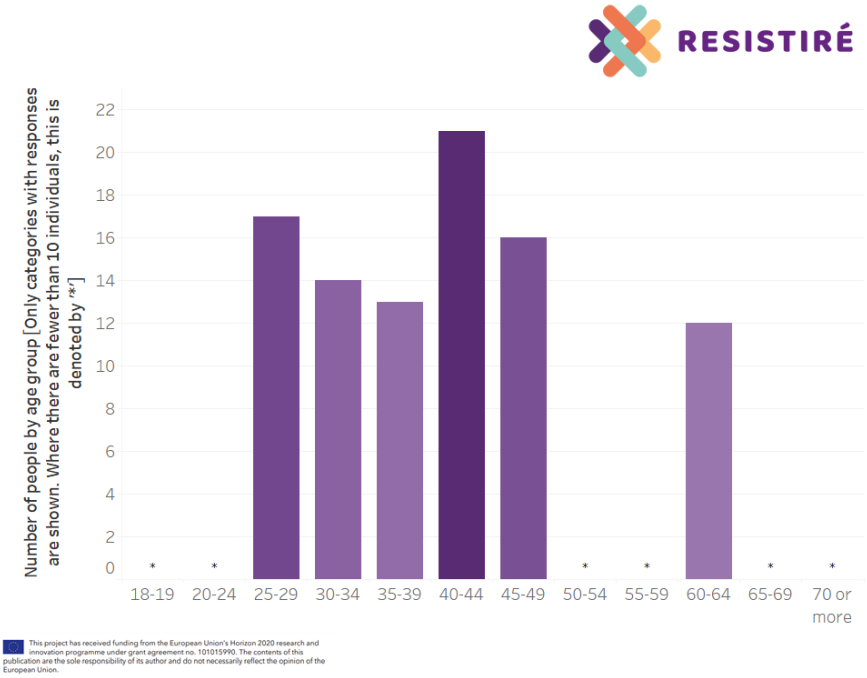
The participants' age ranges from 25 to 64 years old, with the majority between 25 and 49.

Figure 4.3.3: Number of participants by age group



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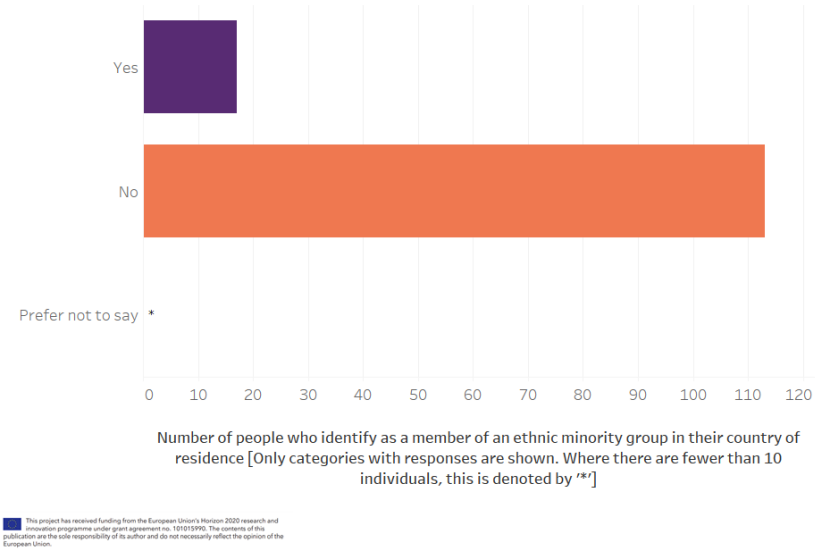
In terms of ethnicity, 17 participants identified themselves as belonging to a minority ethnic group in their respective countries, while 113 did not.

Figure 4.3.4: Number of people identifying as a member of a minority ethnic group in their country of residence



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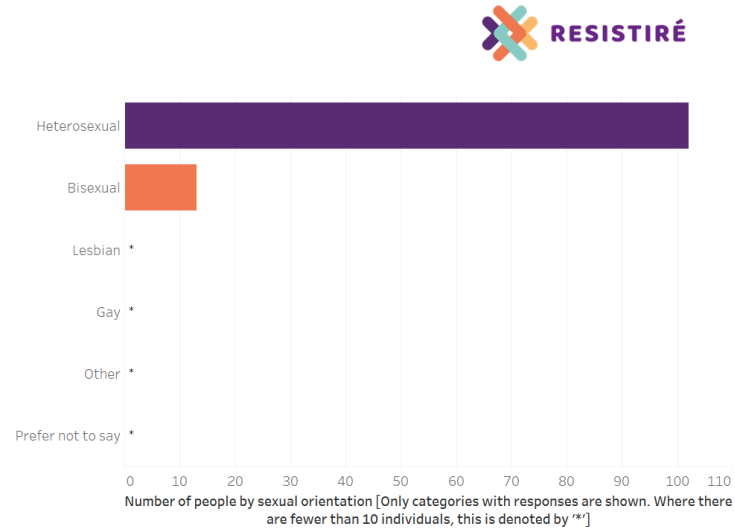
Finally, in terms of sexual orientation, 102 participants identified as heterosexual, 13 as bisexual, and less than 10 participants either identified as lesbian or gay, preferred not to disclose their sexual orientation, or identified with another sexual orientation.

Figure 4.3.5: Number of participants according to their sexual orientation



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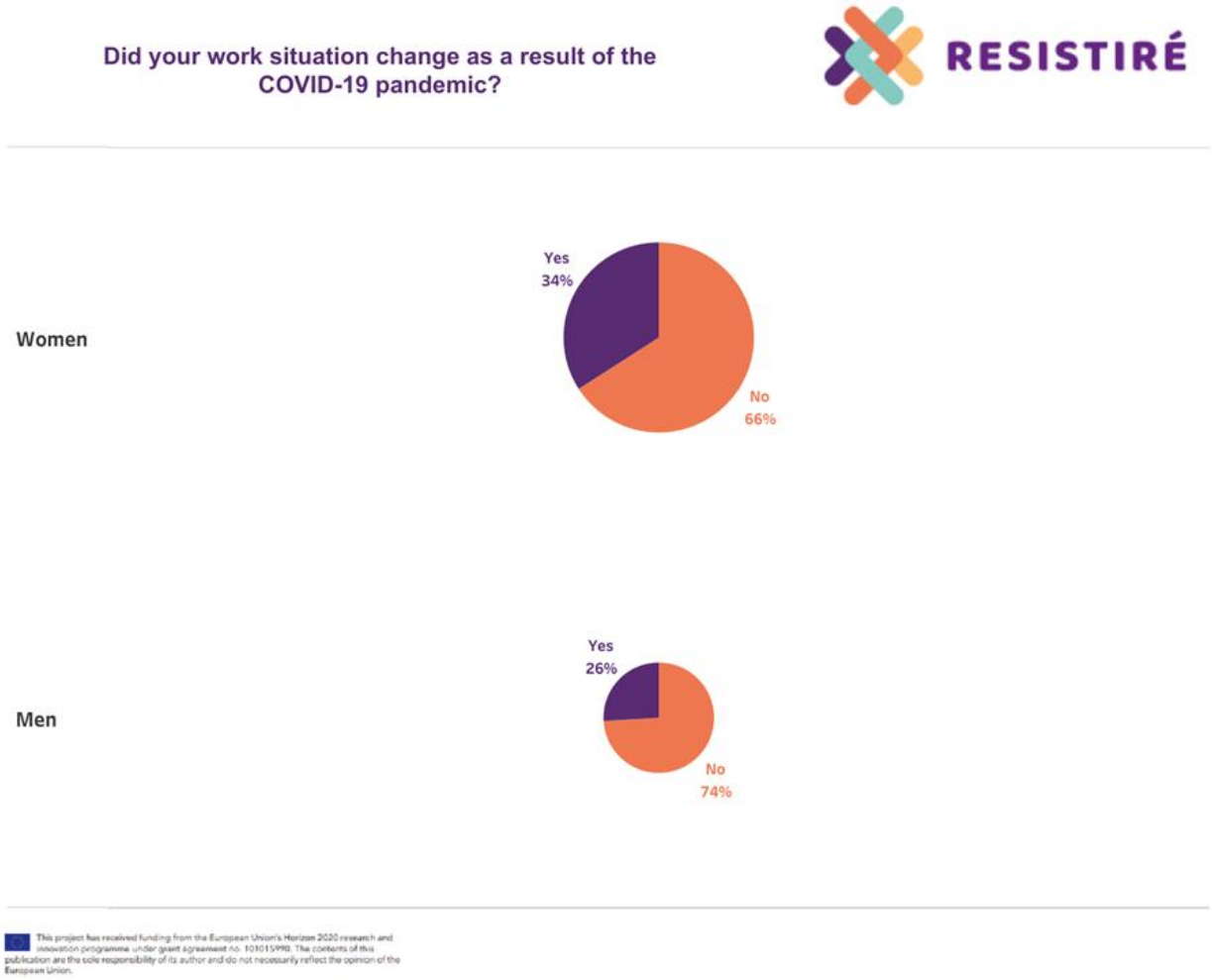
Employment, pay and care

Results from the employment module show that 34% of women reported a change in their work situation due to the COVID-19 pandemic, compared to 26% of men.

Figure 4.3.6: Percentage of participants reporting changes in their work situation as a result of the pandemic by gender



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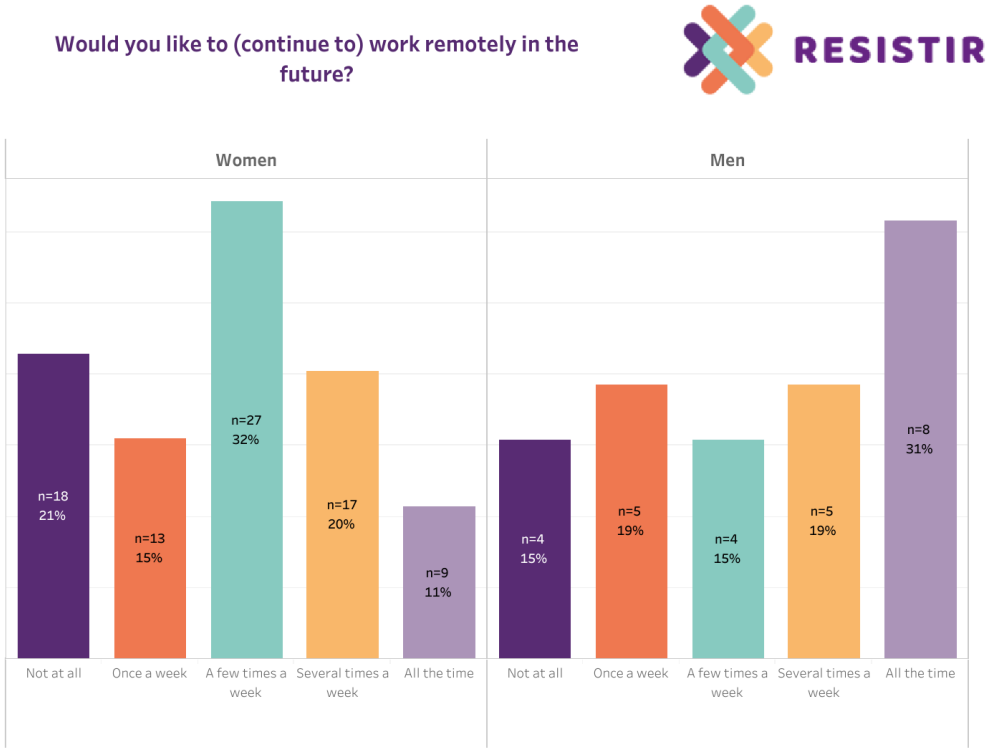
The results from the figure below indicate that both women and men have a preference for continuing remote work in the future, but not to the same extent. Women expressed a preference for working remotely a few days a week (32%), while men preferred working all the time remotely in the future (31% vs 11% of women). A higher proportion of women (21%) than men (15%) would prefer not to work remotely at all in the future.

Figure 4.3.7: Percentage of participants indicating future preference for remote work by gender



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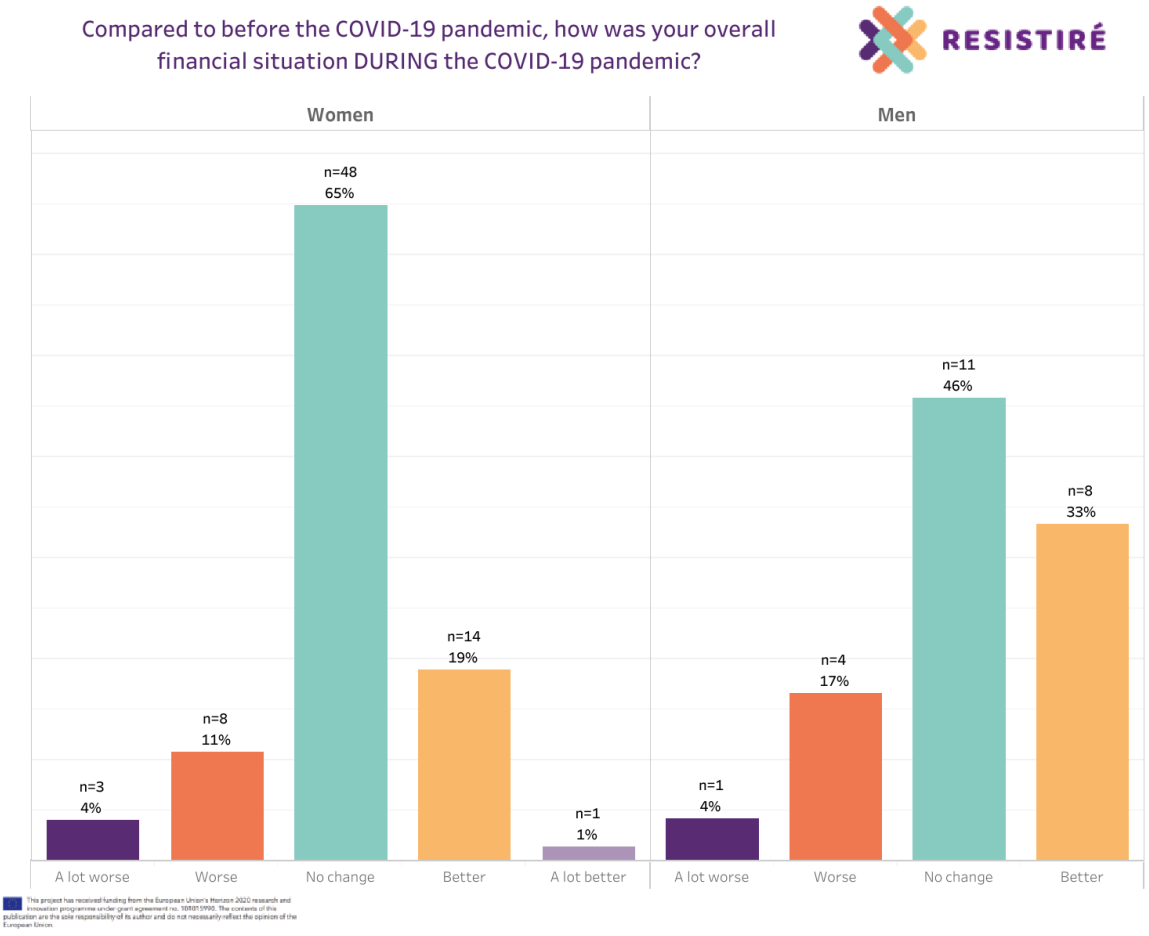
According to the pay module results, the COVID-19 crisis had a more favourable effect on the financial situation of men compared to women. A higher proportion of men (33%) reported that their financial situation improved during the crisis compared to women (19%). While almost two thirds of women respondents (65%), stated that their financial situation remained unchanged during the crisis, less than half of men respondents (46%) reported the same. On the other hand, 17% of men and 11% of women stated that their financial situation worsened during the crisis.

Figure 4.3.8: Percentage of participants' perception of their financial situation during the pandemic by gender



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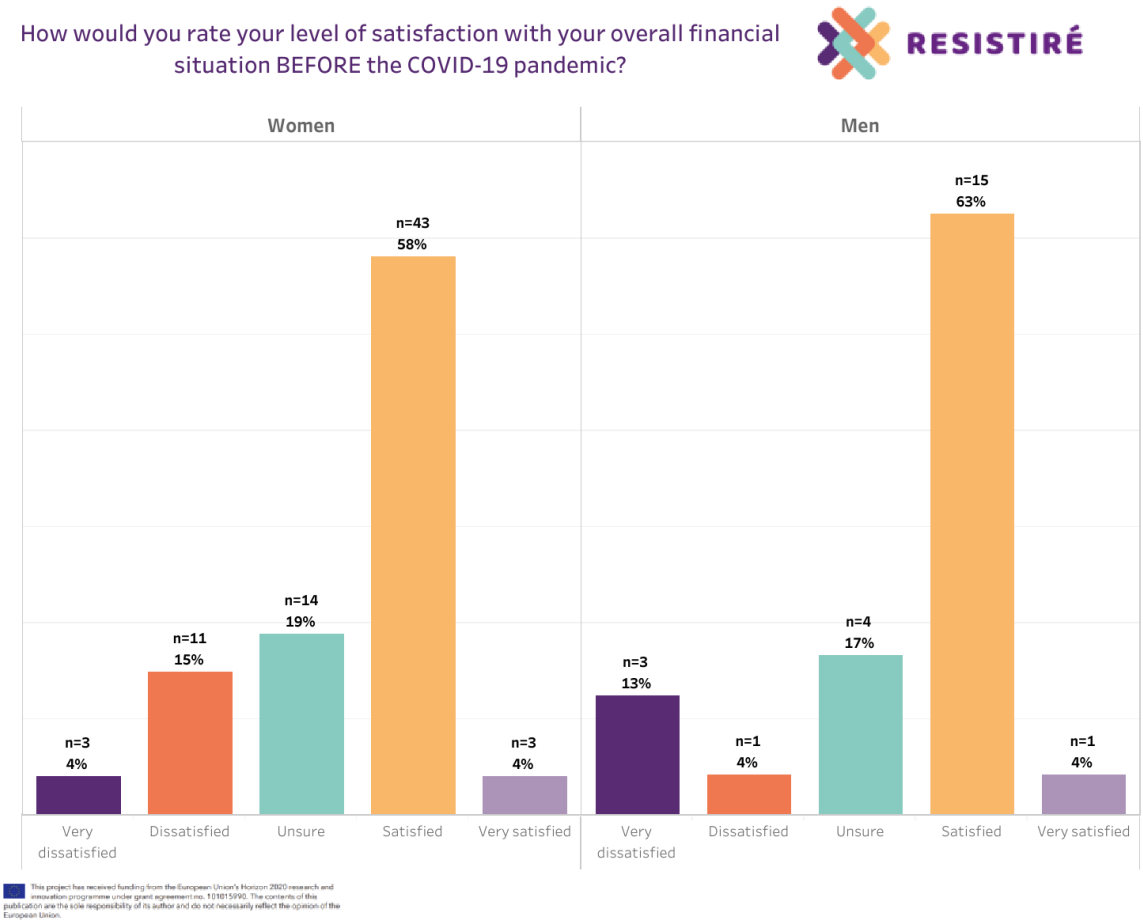
Both women (58%) and men (63%) reported being satisfied with their overall financial situation before the pandemic. However, it is worth noting that a larger proportion of women declared being unsure or dissatisfied with their financial situation, with 19% and 15% respectively, compared to 17% and 4% respectively for men.

Figure 4.3.9: Percentage of participants' satisfaction regarding their financial situation before the pandemic by gender



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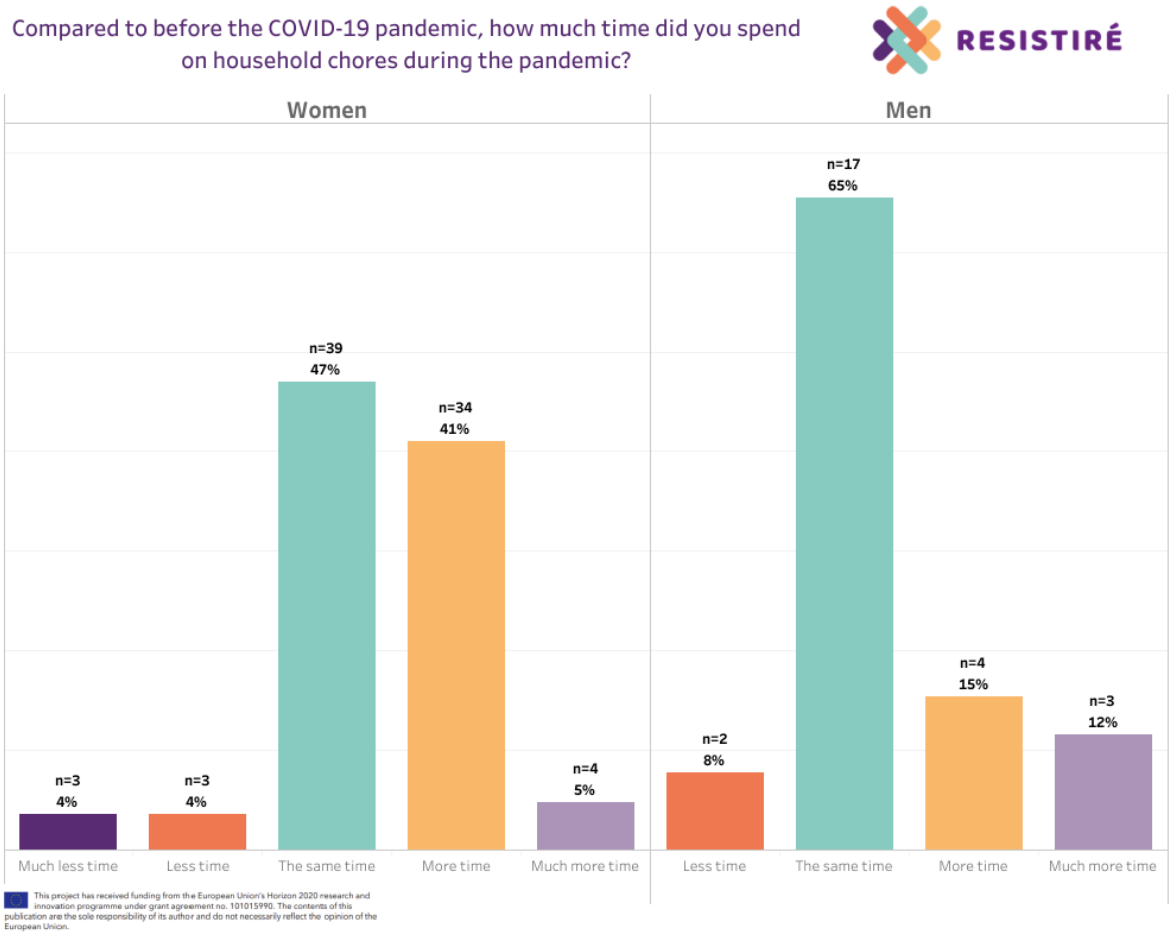
Finally, the results from the care module highlight disparities in the amount of time participants spent on housework during the pandemic. Women tend to take on more of these tasks, with 41% indicating an increase in time spent on household chores during the pandemic compared to only 15% of men. Meanwhile, 65% of men reported dedicating the same amount of time to household chores during the pandemic, compared to 47% of women.

Figure 4.3.10: Percentage of participants' time spent on household chores during the pandemic compared to before, by gender



4.4 Challenges and benefits of using a mobile app and web survey

A free web and mobile app offers many potential benefits for survey research and was chosen for the purposes of the RESISTIRÉ study since COVID-19 highlighted the need to collect data rapidly – as we have seen from the RAS – and through online and digital means. This method was considered as an appropriate tool to invite participants to voluntarily and anonymously answer questions (to comply with ethical considerations and requirements) about their circumstances as well as opinions, attitudes and behaviours. Considering the pandemic restrictions, this online survey research allowed

collecting gender + data which are often missing from cross-national datasets.[67] The inclusion of various inequality grounds in the beginning of the survey was purposeful to ensure that all participants provided gender+ data in a consistent manner. Furthermore, to reach as many participants as possible across different countries, the survey content was translated in fourteen languages to enable participants to respond to questions in their native language.

The app also allowed geo-stamped and time-stamped responses from users' devices to ensure geographic and temporal factors are considered. The web and app survey allows users to access visualisations and illustrations of the data where they can see how their responses compared to other respondents as soon as they complete the survey questions. This is a particular added value that the app design can provide. The app also enables capturing the consent of users and controls the entry into the modules based on certain answers in the on boarding journey. We customised the navigation logic so that once respondents had completed one module, they were taken to the next module available. The nature of the app allowed the users to return to previous modules if they wished to. Their data are saved on their account and they have the opportunity to continue where they left off.

However, in developing the RESISTIRÉ survey app over the last three cycles of the project, we have encountered a number of challenges in adopting this methodology. Here, we share what we have learnt in this process for the benefit of other researchers who may be considering using an app for survey research.

Getting approval for a survey app

In order to be available for download by users with different devices, apps need to receive approval from major app store providers (i.e., Apple App Store and the Google Play Store). The approval processes can be challenging and lengthy, as there are a lot of guidelines to be followed. For legal reasons it needs to be clear exactly what your app does and does not do, and how it can be used. App store providers can be sued if an app that causes harm makes it onto the platform, so they are very stringent with checking apps and getting evidence relating to anything ambiguous or potentially concerning. When it comes to producing an app to conduct fast-paced research on a new crisis like the pandemic, this can create problems. It is difficult to foresee how app store guidelines will adapt to new scenarios and whether any new restrictions will be put in place. As our app description contained specific key words relating to COVID-19, Apple and Google automatically declined the app and required additional evidence to be submitted to clarify that it was not being used for medical diagnostics or health-based purposes. Going through this appeal process was very time consuming. Since each app store has its own review procedures and new versions of the app had to be uploaded following

[67] Stovell et al., 2021; Stovell et al., 2022.

development, this approval and appeal process had to be repeated on several occasions creating extensive delays.

Personnel and expertise

App development for research purposes requires specialist expertise in app development and a team dedicated to this task (to ideally include roles such as, user experience designer, app developer, quality assurance engineers[68]) alongside a research team with expertise in survey design. This should be taken into account when deciding if an app is the best approach for the intended research activities and appropriate resources should be set aside for this when planning and budgeting for a survey app.

Choice of tool for building the app

Dedicated tools that provide templates for app building, like Google's Appsheet, reduce the need for coding time and expertise. They can therefore reduce the cost and time resources required for building an app, as well as potentially reducing the number of dedicated development personnel needed. No/low code tools for app building are also often free to use, especially for academic purposes (Appsheet's Pro plan was free for university users at the time of writing). These tools have other benefits, such as ensuring that the app is compatible on all platforms (web, Android, iOS, phone, tablet, desktop etc.) and is easy to update. For a large and commonly used platform, like Appsheet, there are active communities online providing tutorials and guidance for troubleshooting issues.

However, there are substantial compromises when using these tools in relation to user experience and customisation, due to the limitations of fixed templates. For example, it is difficult to integrate and edit complex logic in question design (i.e., filtering who is asked certain questions based on their responses to previous questions), making the app fragile to bugs and errors. Furthermore, while the design of the RESISTIRÉ app survey was based on multiple question modules, effectively several mini surveys, it was not possible in Appsheet to incorporate logic based on responses to previous modules. This meant that questions had to be repeated in multiple modules to allow question logic and filtering to occur. Another challenge was that web-based app design template tools take longer to synchronise and update since they are reliant on shared resources and servers.

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68 UX designers are essential for complex apps since they help to bridge the gap between the developer and the end user, to ensure that the app can be used by the widest range of users, without difficulty. Quality assurance engineers help to verify, sometimes through automated tests and/or manual test scripts, that the app is working as expected. App developers can play the role of quality assurance engineer but the latter are better trained in the testing processes.

An alternative approach to designing a research app would be to create the app from scratch using code. Coded applications allow for more flexibility and easier adjustments in survey design. They also tend to be built offline and therefore do not rely so much on internet connections and server power, meaning that the cycle of making a change and testing can be done in seconds rather than minutes.

Translation

Translation is a costly and time-consuming process that should be taken into consideration for app surveys that wish to reach an international audience. Apps facilitate the incorporation of multiple languages compared to a simple online survey, however building this into the app design process adds complexity and requires additional resources. It is also important to ensure that the chosen tool for building the app has the capacity for multiple languages. Incorporating translations is a well-trodden path within coded apps, but it seems less common within low/no code tools. The main benefit of a low/no code tool here is the seamless updates, since new languages can be released without going through the app store review process.

User validation

User validation is a process to check whether a user is genuine and is who they say they are. Requiring validation of app users prevents anonymous responses and is the best way to ensure no user can complete the survey twice. It also prevents spam email accounts or 'bots' from accessing the app and producing invalid data. There may be further benefits for usability within the app. For example, Google's Appsheet platform relies on the email address of the user to be able to identify them with a consistent ID.

One way of securing validation is for users to sign in to the app with an existing account from a third-party provider (e.g., Google, Facebook etc.). This functionality is required in AppSheet, for example. The main benefit of using third party validation is that these external platforms have already required the user to go through a process of verification and so the need to create a bespoke validation process is removed. However, it is important to bear in mind that this has consequences for the accessibility of the app and the potential to reach a diverse sample of respondents, since users must already have accounts with these external providers and those that don't might be discouraged from participating in the study.

Due to the abovementioned challenges of the platform we have used, it was challenging to publish new sets of questions (modules) at regular, monthly intervals and provide data at different points in time. Each module needs approval from both Google Play and Apple stores which can be time consuming and thus we decided to have two phases of releasing modules. Considering the limited remaining time of the project, we also wanted to ensure that there was enough time for recruitment and analysis of the data.

4.5 Next steps

Moving forward, our efforts will be concentrated on further disseminating the survey and conducting the data analysis. To perform quantitative gender+ analysis and consider jointly the different inequalities grounds identified within RESISTIRÉ, it is necessary to increase the participation rate. To do so, we will continue to promote both the web and the app version of the survey. So far, over a third of the responses were received through the web version. This modality was found especially relevant to disseminate the survey within organisations. Some CSOs reported feeling more comfortable sharing a survey with their members by sending them a web link rather than asking them to download an app. Also, as mentioned previously, one of the challenges regarding the app is its accessibility, and while a web version may not solve all the related issues, it can lower the barriers regarding digital literacy and mobile application usage.

In order to study how COVID-19 and COVID-19-related policies affect inequalities from a gender + perspective, it is essential to gather data from hard-to-reach and vulnerable groups. Consequently, the web and app survey will be shared especially within networks such as front-line workers' unions, feminist organisations, and CSOs involved with vulnerable groups.

Regarding the data analysis, the survey will remain open until early summer, in order to maximise the response rate and tap into the promotion and attendance of the final RESISTIRÉ conference. In the meantime, cut-off points for interim analysis will be introduced, and results will be shared on RESISTIRÉ communications channels. The comprehensive analysis of the data will be presented in the final report.

Overall report conclusions and reflections

By examining quantitative indicators over time, this report offers insights into the pandemic's long-term effects on inequalities at national and European levels. These insights can inform crisis management, enable the identification of recovery signs, and provide guidance for future research. There are lessons to be learnt from all sections of the report in terms of conducting quantitative research from a gender+ perspective to understand how inequalities are evolving during crises.

Summary of findings

The first section on the mapping of the longitudinal RAS demonstrates how such a methodological tool allows for a dynamic, real-time sense of the effects of pandemic policies on individuals, providing insights into the ways in which inequalities have been exacerbated and new inequalities emerged. The RAS analysis highlighted the need of strengthening public services for vulnerable groups which is tightly interwoven with the development of public policies and actions based on evidence-based research from an intersectional lens. The profound lack of gender mainstreaming and intersectional approaches at policy level[69] calls for an inclusive crisis management from an intersectional perspective within and beyond crises. Furthermore, the role of civil society organisations is crucial in developing and engaging with RAS that aim to capture vulnerable and hard to reach groups and thus explore intersectional experiences during crises.

We identified better stories in terms of how the longitudinal RAS during the pandemic have been agile, dynamic and flexible to capture a volatile and uncertain situation, reaching vulnerable groups and integrate gender+ and intersectional approaches. Longitudinal RAS thus modified their survey design in terms of focus and scope, target group, and data collection techniques. However, there is more to be done in terms of strengthening the intersectional data collection and analysis that RAS can have. There are key methodological lessons highlighted in this report. First, the integration of a gender+ perspective needs to take place from the very beginning of the survey design, rather than as an add on. Questions that capture different inequality grounds are necessary. Data collection should be designed in a way that is as accessible and inclusive as possible. For example, tapping into different techniques, engaging with various stakeholders (e.g., CSOs, or public authorities connecting data collection with service

[69] Cibin, Roberto, Ghidoni, Elena, Aristegui-Fradua, Irache E., Marañon, Usue Beloki, Stöckelová, Tereza, & Linková, Marcela. (2022). RESISTIRE D2.2 Summary report on mapping cycle 2. Zenodo. https://doi.org/10.5281/zenodo.6536060
Cibin, Roberto, Stöckelová, Tereza, & Linková, Marcela. (2021). Dataset: RESpondIng to outbreaks through co-creaTIve sustainable inclusive equality stRatEgies (RESISTIRÉ) - societal responses [Data set]. https://doi.org/10.14473/CSDA00290

delivery) to ensure that hard-to-reach populations can participate. Furthermore, more funding (and time) and expertise in conducting intersectional data analysis should be factored into the design of intersectional research studies.

One of the key findings of mapping RAS for the RESISTIRÉ project across all cycles was that, although most RAS included variables for sex or gender and many captured indicators relating to other inequality grounds, more often than not, gender+ analysis of the data was limited or non-existent. This appeared to be a missed opportunity and thus the RAS collaborations were initiated to contribute towards more and better gender+ analysis in existing and future RAS activities. The seven RAS collaborations presented in this report enrich and increase the pool of secondary data that can be utilised in the future to investigate gender+ perspectives on the impact of COVID-19.

Through new data collection and intersectional analysis, they produced results on understudied topics and groups. These findings contribute towards knowledge gaps regarding the effect of the pandemic on gender pay and pension gaps, the domestic division of labour, resilience, transgender individuals' healthcare needs, and frontline workers' experience while giving methodological insights into how to design and conduct intersectional research. More specifically, on the gender pay and pension gap, what can be considered a better story has been identified in the Netherlands with no significant gender discrepancy regarding the ability to earn a stable income, to contribute to pensions, and to save during the pandemic. The COVID-19 Gender (In)equality Survey showed that it is rather the level of education and citizenship status that seems to be prevalent in the pay and pensions inequalities that occurred during the pandemic in the Netherlands. These collaborations also give a better understanding of how the pandemic impacted the division of care responsibilities and domestic chores. The Deustobarómetro Social survey measured the role of teleworking regarding the gendered divisions of housework and showed that working remotely did not disrupt the traditional gender share and care duties within the households in the Basque country. Gender inequalities persisted, and in some cases, worsened. Similarly, the Generations and Gender Survey COVID pilot study focused on the care and domestic responsibilities within couples in Czechia also showed that the pandemic affected the majority of task distributions within couples with women, especially those with lower education, doing most of the care and domestic work. As a result of this, women who were responsible for the majority of the household tasks reported feeling dissatisfied with their relationship. Regarding frontline workers, and health care professionals in the UK particularly, women experienced more burnout than men during the pandemic. Furthermore, the NHS COVID Teams survey demonstrated that the existence of violence from patients and relatives especially, but also from colleagues and managers, has a strong effect on the increase of burnout. The collaboration with the Transcare RAS enabled the evaluation of access to trans-specific healthcare for trans individuals during the pandemic and the assessment of their needs in this area. The majority of respondents experienced difficulties in accessing trans-specific healthcare due to the COVID-19 outbreak and expressed the need for online support, more/better counselling services, and more financial support as well as more education for

healthcare professionals. The Belgian COVID-19 health surveys have shown that anxiety has declined overtime throughout the pandemic. This decline is partly due to the resilience of the population as higher levels of resilience were associated with less anxiety over time especially for younger people and less educated women. It is worth noting that the descriptive analysis has shown that women (high and low educated levels and all ages) and young people have lower levels of resilience, yet women and youth with high level of resilience has seen their anxiety level decrease significantly over the pandemic. Finally, the Handbook for Conducting Intersectional Research provides suggestions on how to remove barriers to intersectional data collection (with a focus on LGBTQI communities) through design, implementation but more importantly engagement with communities that are targeted. Overall, these collaborations contribute towards enabling and supporting researchers, with different disciplinary and methodological backgrounds from academia and beyond, to understand how a gender+ approach and analysis can underpin their future research activities. These collaborations are a testament to how extra funding – in some cases -, time and expertise can help towards more and better intersectional analysis.

The section on the European analysis also provided an example of how intersectional analysis can be performed within an existing cross-national survey conducted specifically during the pandemic. The analysis of the Eurofound e-survey provided insights on the experience of four intersectional groups (females with less than a tertiary education, males with less than a tertiary education, females with tertiary education, males with a tertiary education) in four areas: employment, work/life balance and inclusion; care and household work, trust in institutions, perceived health and resilience. Looking at the situation within these areas in four points in time (spring 2020, summer 2020, spring 2021 and spring 2022), some signs of slow recovery are observed. For example, the proportion of job loss has improved and returned to a level comparable to that of the spring of 2020 for most groups. However, people's wellbeing seems to be far from a full recovery, and the expected improvements linked to the gradual reopening of European countries appear to be obscured by the multiple crises of the last year. In particular, lower educated women have been in the worse situation throughout the pandemic because they are burdened with a double disadvantage. They reported the highest proportion of job loss in almost all the survey rounds, experienced the greatest difficulties in combining household jobs with paid work and spent more time caring for elderly and/or disabled relatives, and on housework. Feelings of social exclusion, poor perceived health and lower resilience were also more prevalent among lower educated women compared to other groups.

The last section on the web and mobile app survey showcases how an intersectional perspective can be embedded from the very beginning. The demographic questions captured various inequality grounds to allow for gender+ analysis. Substantial effort was undertaken to translate the content of the survey in many languages to maximise responses from participants that might have felt more at ease completing the survey in their own language. We envisage that the RESISTIRE survey will contribute to gender+ data analysis once the responses reach a sufficient number to allow for such analysis.

Recommendations for future research

Despite better stories, signs of recovery over time, and exploration of resilience mechanisms, gaps in knowledge have been identified. The analysis and reporting of data on COVID-19 and the impact of related policies on the population have lacked an intersectional, gender+ perspective. Building on all the sections in this report and reflecting on the lack of intersectional analysis from a quantitative perspective, we come to the following conclusions and reflections on how to address these gaps.

Challenges of intersectional analysis

Data availability

In many cases questions on various inequality grounds are not included in survey design. This was demonstrated in many longitudinal RAS and led to a mandatory section in the RESISTIRE survey where data on various inequality grounds are being collected.

Limited data available to conduct intersectional analysis was repeatedly highlighted by the RAS collaborations. While all of the RAS captured data on various inequality grounds, they were not able to conduct intersectional analysis due to limited responses from particular groups often hard to reach and vulnerable groups. This highlights the importance of oversampling certain groups but also engaging stakeholders like CSOs or public authorities that can enhance the engagement of hard-to-reach groups (people with a lower educational level, immigrants, people living in poverty, etc.). Of course, survey fatigue is demonstrated through the declining participation of people which highlights the need for more creative approaches to engage participants.

In the RAS mapping, we found many data gaps especially in relation to race, disability, sexual orientation, and gender identity. Most European surveys only include information on sex, with no data available on non-binary gender – in some cases data are collected but not used in the reporting- which would enrich data significantly and would address the challenge of differentiating between gender identity, sexuality, and sex. Furthermore, many European surveys focus on risk factors for inequalities and disadvantage but fail to assess positive aspects that can render this group less vulnerable such as religiosity or social support.

Efforts should be put in place to develop data that allow intersectional analysis. Such data should include not only indicators of social position and identity, but also propose mechanisms to better explain these intersectional inequalities such as discrimination. Indeed, most intersectional analysis present the belonging to a certain intersectional group as the explanatory mechanism of the inequality, while this is not the case, because

belonging to a certain category is a proxy of exposure to disadvantage.[70] As mentioned before, a good example of collecting data for gender+ analysis is captured in the RESISTIRE web and mobile app survey.

Modelling intersectionality

Although modelling approaches have been recommended in the literature, there is still debate as to the suitability of quantitative analysis to study intersectionality.[71] When data are available, there is often a narrow operationalisation of the intersectional groups via for example the use of binary categories for social status or identity. This was the case in the European analysis in this report, where high educated/low educated categories were used. While we are aware that such an approach would hide the heterogeneity within these groups, this decision was guided by the size of the different categories. Indeed, very few participants were in the lower educational groups resulting in a need to combine categories. In order to avoid analyses with less statistical power, it is necessary to determine the need for intersectional groups from the beginning of the study design.

Through our experience with the last three cycle reports, reconciling the needs for an intersectional lens with that of the requirements of quantitative methods does not come without challenges. This can be achieved by taking a categorical approach to look at specific groups, as opposed to anti-categorical approaches more traditionally aligned with qualitative methods.[72] A body of literature is increasingly discussing how to transpose intersectionality into more advanced quantitative methodology.[73] These studies seek to use quantitative analyses that will address the following questions (Bauer et al., 2021): how are sets of social relations constituted, and along what axes? How do these sets of social relations reflect interpersonal, often historical, mechanisms of oppression, marginalisation and/or minoritisation? How are these sets of social relations shaped by a wider complex system of structural inequalities? Is intersectional disadvantage 'additive' or 'multiplicative'?

The operationalisation of intersectionality into quantitative methods, to find answers to these questions, have tended to involve the use of cross-tabulations, analysis of differences between means or the use of regression models. However, the use of these methods is not without criticisms and calls have been made to improve the quantitative approaches used to answer these questions[74]. Recent methodological work has shown

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70 Harari and Lee, 2021.
71 Harari and Lee, 2021.
72 McCall, L. (2005). The Complexity of Intersectionality. Signs: Journal of Women in Culture and Society, 30, 1771-1800. https://doi.org/10.1086/426800
73 Bauer, G. R., Churchill, S. M., Mahendran, M., Walwyn, C., Lizotte, D., & Villa-Rueda, A. A. (2021). Intersectionality in quantitative research: A systematic review of its emergence and applications of theory and methods. SSM - Population Health, 14, 100798.
74 Saperstein, A., & Westbrook, L. (2021). Categorical and gradational: alternative survey measures of sex and gender. European Journal of Politics and Gender, 4(1), 11-30. https://doi.org/10.1332/251510820x15995647280686

how multi-level models could be used to take intersectionality into account.[75] First, these models avoid systematically taking the dominant category as reference and the yardstick against all 'other' groups are measured. Second, they solve the problem of the number of interactions to specify, which increases geometrically, by including identity categories as a level in the model specification and thus reducing the increase in the number of parameters to a linear one. Multi-level modelling is also advocated to combine variables located at the individual level with organisational or national level variables, due to its potential to analyse identities in relation to wider structures of inequalities.[76]

In this context, as best practices in quantitative intersectional analyses are still ongoing and new analytical approaches are being developed, the publication of relevant studies, guides and statistical programs would be very useful for researchers seeking to conduct intersectional analysis.

Lessons learnt and way forward

A key lesson from the quantitative report is the need for building research capacity for intersectional analysis. The RAS collaborations demonstrated how additional funding and time along with focus on gender+ lens can lead to new results and findings. At European level, presenting disaggregated data in ways that could capture intersections of multiple inequalities would be a significant step forward for official European statistics, as currently most of the data are presented disaggregated by one indicator. Practically speaking such an endeavour would require the development of new approaches of presenting data. Indeed, the aim of the official European statistics is often to compare through time and/or member states, so adding multiple inequalities to temporal and/or geographical comparisons would make the figures crowded and less user-friendly, especially for users with no quantitative background. In this context, there is a need for researchers across different fields with expertise in statistics but also diversity and intersectionality to come together and identify appropriate approaches and methods to illustrate intersectional inequalities through cross-national datasets. Eurostat has been enriching surveys to include indicators reflecting different disadvantages such as those related to income, employment, housing, nationality/country of birth, etc.

The availability of short training courses, methodological guides and statistical programs could encourage researchers to undertake quantitative intersectional analysis. Furthermore, researchers working on intersectionality need to highlight the added value of intersectional approaches in revealing issues and trends that should inform policy actions.

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75 Evans, C.R. et al. (2018) 'A multilevel approach to modeling health inequalities at the intersection of multiple social identities', Social Science & Medicine, 203, pp. 64–73. Available at: https://doi.org/10.1016/j.socscimed.2017.11.011.

76 Bauer et al., 2021; Spierings, N. (2012). The inclusion of quantitative techniques and diversity in the mainstream of feminist research. European Journal of Women's Studies, 19(3), 331-347. https://doi.org/10.1177/1350506812443621

Undoubtedly linkages of data from different sources would encourage intersectional analysis. For instance, linking COVID-19 vaccination data with census data would allow the addition of social and identity variables to the vaccination data. The same goes for mortality data, for instance. Therefore, linkages are not the problem (though not easily undertaken) as this is already occurring is many research projects. However, researchers interested in inequalities often examine inequalities from a singular lens and fail to acknowledge the impact of multiple and intersecting inequalities. Better awareness of intersectional methodological approaches and understanding of the added value would be beneficial.

The final key lesson was the flexibility and adaptability of longitudinal RAS in their design enabling capturing information in rather uncertain and volatile environment providing insights into change over time. This was demonstrated in the longitudinal RAS mapping and through the RAS collaborations where we could add questions to contribute to RESISTIRE knowledge gaps.

The pandemic has highlighted a better story in terms of how longitudinal surveys – either at national or European level – can become crucial tools to collect dynamic intersectional data that can inform public policies and actions during crises from a much-needed gender+ and intersectional lens.

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Appendices

Appendix for section 1 Longitudinal RAS

Appendix 1.1: National Researchers involved in the RAS analysis by country

Country	Researcher
Austria	Elisabeth Anna Guenther, Annika Martin
Belgium	Aart Kerremans
Bulgaria	Ralitsa Golemanova
Croatia	Sanja Sarnavka
Cyprus	Maria Kyprianou
Czech Republic	Vanda Maufras Černohorská
Denmark	Stine Thidemann Faber, Lise Rolandsen Agustin
Estonia	Raili Marling
Finland	Inkeri Tanhua
France	Suzanne de Cheveigné
Germany	Carolina Wienand-Sangare
Greece	Nelli Kambouri
Hungary	Agnes Kende
Iceland	Finnborg Salome Steinþórsdóttir, Guðbjörg Helga Jóhannsdóttir
Ireland	Sara Clavero
Italy	Maresa Berliri, Claudia Aglietti
Latvia	Marita Zitmane
Lithuania	Vaida Tretjakova
Luxembourg	Aart Kerremans
Netherlands	Marloes van Engen
Poland	Ewelina Ciaputa
Portugal	Catarina Sales de Oliveira
Romania	Monica Stroe
Serbia	Zorana Antonijevic
Slovakia	Zuzana Ocenasova
Slovenia	Katarina Zupevc
Spain	María Silvestre, Laia Terragona
Sweden	Lina Sandstrom
Turkey	Ayşe Gül Altınay, Pınar Ensari, Nazlı Türker
United Kingdom	Alexis Still

Appendix 1.2

RAS Code	Country	RAS Name	Website/ Report Link	Inequality Grounds Covered	Main Topics	Number of waves
AT01	Austria (second survey also to some extent in Germany)	Love, Intimacy and Sexuality in times of Corona	https://www.sfu.ac.at/de/person/rothmueller-barbara/ https://barbararothmueller.net/Bericht_02_2021.pdfhttps://barbararothmueller.net/rothmueller2020zwischenberichtCOVID19.pdf	Sex/Gender Sexuality	Relationships and intimacy	2
AT10	Austria	Austrian Corona Panel Project (ACPP)	https://viecer.univie.ac.at/corona panel/austrian-corona-panel-data/method-report/ https://bprainsack.medium.com/the-coronation-of-austria-part-18-c4ac4164fb6b	Sex/Gender SES Disability Nationality Migration	Crisis perception, effects of the crisis, expectations of the crisis, politics, work and economy, communication, psychological predispositions, sociodemographic information.	33
BE04	Belgium	Impact of corona measures on stress, relationships and intrafamily violence	https://www.ugent.be/en https://igvm-iefh.belgium.be/nl https://www.ugent.be/nl/actueel/een-op-vier-is-slachtoffer-van-agressie-tijdens-eerste-fase-lockdown-in-belgie.htm http://equal.brussels/wp-content/uploads/2021/01/Persmededeling-onderzoek-UGent_NL.pdf https://ircp.ugent.be/wp-content/uploads/2020/05/Toelichtend-rapport-RSA-studie-Eerste-bevindingen-Mei-2020-1.pdf	Sex/Gender SES Nationality Gender Identity	The impact of COVID-19 on stress, relationships and aggression.	3

BE05	Belgium	Power to Care	https://www.sciensano.be/en https://www.kuleuven.be/english/ https://www.sciensano.be/nl/pershoek/covid-19-crisis-heeft-grote-impact-op-persoonlijk-professioneel-en-lichamelijk-vlak-voor-zorg-en	Sex/Gender Age	Symptoms of chronic stress, and health complaints.	4
HR07	Croatia	How are we? Life in Croatia in the age of coronavirus	http://psihologija.ffzg.unizg.hr/EN https://kakosi.ffzg.unizg.hr/ https://www.zvu.hr/?lang=en https://web2020.ffzg.unizg.hr/covid19/wp-content/uploads/sites/15/2020/06/Kako-smo_Preliminarni-rezultati_brosura.pdf	Sex/Gender SES Age	Changes in lifestyle, close relationships and work during the COVID-19 pandemic, the ways in which citizens experienced these changes, the degree of anxiety with different sources of stress in the new situation and the consequences of stress on mental health.	1
HR09	Croatia	(Re)building society: A longitudinal study of post-corona social recovery in Croatian general population (ReSPoC)	http://psihologija.ffzg.unizg.hr/ http://psihologija.ffzg.unizg.hr/projekti/respoc/o-projektu	Sex/Gender SES Age Disability Nationality Race	How Croatian citizens perceive their current society and what kind of future changes they predict.	3
CY01	Cyprus, Switzerland	COVID-19 IMPACT SURVEY	https://ucyweb.ucy.ac.cy/acthealthy/en/covid-19-impact-survey	Sex/Gender SES Age Disability Race	Psychological and behavioural aspects associated with the COVID-19 pandemic. Demographics - Smoking, exercising or drinking alcohol - Following self-isolation guidelines - Beliefs about the virus - Levels of anxiety and depression	

					- Mechanisms for dealing with isolation - Positive and negative emotions	
CZ02	Czechia	What are the effects of the pandemic on mental health? [Jaké má pandemie dopady na duševní zdraví?]	https://www.pagresearch.cz/ https://zivotbehempandemie.cz/dusevni-zdravi	Sex/Gender SES Age	Mental Health	37
CZ04	Czechia	Evaluation of State Response to COVID-19 Epidemic [Hodnocení reakce státu na epidemii COVID-19]	https://cvvm.soc.cas.cz/en/ https://cvvm.soc.cas.cz/en/press-releases/political/politicians-political-institutions/5384-evaluation-of-state-response-to-covid-19-epidemic-our-society-special-april-2021	Sex/Gender SES Age Educational level	Public opinion on government responses to COVID-19.	8
DK02	Denmark	HOPE - How Democracies Cope with COVID19. A Data-Driven Approach	https://hope-project.dk/#/about https://hope-project.dk/#/reports	Age	The trajectory of the COVID-19 pandemic, citizens' behaviour and well-being, mental health, vaccination, restriction measures, decisions of governments and international organisations, decisions of media and social media landscapes.	

DK06	Denmark	Non-Western immigrants' level of employment is back to normal (pre crisis)	https://www.ae.dk/the-economic-council-of-the-labour-movement https://www.ae.dk/analyse/2021-08-ikke-vestlige-indvandreres-beskaeftigelse-er-tilbage-paa-foer-krise-niveau	Sex/Gender Race	Employment of non-Western immigrants	
EE01	Estonia	COVID-19 teemaline küsitlus	https://riigikantselei.ee/en https://riigikantselei.ee/uuringud?view_instance=1&current_page=1	Sex/Gender Age Race	Mental health, working conditions, vaccination, restriction measures.	41
EE05	Estonia	Eesti elanike vaimne tervis ja heaolu	https://www.tlu.ee/en https://www.tlu.ee/sites/default/files/Instituudid/LTI/Dokumendid/Dokumendid/Uuringuraport%20I%20laine.pdf	Sex/Gender SES Age Race	Mental health	3
FI02	Finland	Kansalaispulssi [Citizens' Pulse]	https://www.stat.fi/tup/htpalvelut/tutkimukset/kansalaispulssi_en.html https://valtioneuvosto.fi/tietoa-koronaviruksesta/kansalaispulssi	Sex/Gender Age	Mental health, well-being, working conditions, opinions on COVID-19 policies and their effects on respondents' lives.	40
FI09	Finland	Impacts of the coronavirus epidemic on experiences of domestic violence and the use of services (KOVÄ)		Sex/Gender	Effects of the pandemic on experiences of domestic violence.	Constantly gathering data.

FR01	France	Coconel/ housing	https://www.ifop.com/ https://www.ifop.com/wp-content/uploads/2020/04/117272_COROv12_1_30032020-ENS-1.pdf https://www.ined.fr/fichier/rte/General/ACTUALIT%C3%89S/Covid19/COCONEL-note-synthese-vague-11_Ined.pdf	Sex/Gender SES Age	Living conditions, state of health, sociability/isolation.	9
FR05	France	CoviPrev: a survey to monitor behaviour and mental health during the COVID-19 epidemic (CoviPrev : une enquête pour suivre l'évolution des comportements et de la santé mentale pendant l'épidémie de COVID-19)	https://www.santepubliquefrance.fr/ https://www.santepubliquefrance.fr/etudes-et-enquetes/coviprev-une-enquete-pour-suivre-l-evolution-des-comportements-et-de-la-sante-mentale-pendant-l-epidemie-de-covid-19	Sex/Gender SES Age	mental health, adoption of preventive measures, vaccination adherence, addictions, diet and sports activity	4
GER01	Germany	"Mannheimer Corona Studie" MCS	https://www.uni-mannheim.de/ https://www.uni-mannheim.de/newsroom/presse/pressemitteilungen/2020/april/corona-studiesoziale-ungleichheit/https://www.uni-mannheim.de/gip/corona-studie	Sex/Gender SES Age	Socio-economic aspects (e.g., childcare, work situations, and disposable income), the influence of political measures on social interactions, fears and the social acceptance of measures to contain the pandemic	Data gathered over a period of 16 weeks.

GER02	Germany	Corona Online Survey	https://www.boeckler.de/en/index.htm (https://www.kantar.com/de) https://www.boeckler.de/data/Boeckler-Impuls_2020_08_S4-5.pdf	Sex/Gender Age Educational level	Differences with regard to working conditions, child care responsibilities and distribution, income (along the dimensions gender, age, education and Federal state)	8
HU04	Hungary	Coronavirus and crisis management - the experience of Hungarians after a year	https://www.policysolutions.hu/en/ https://www.fes-budapest.org/hu/ http://www.zaveczresearch.hu https://www.policysolutions.hu/userfiles/Policy_Solutions_Koronavirus_es_valsagkezeles.pdf	Sex/Gender SES Age	Social relations, domestic violence, home office, financial difficulties.	3
IS01	Iceland	COVID tracking	https://fel.hi.is/is https://fel.hi.is/is/covid-tracking	Sex/Gender Age Educational level	Restriction measures and communicable disease control.	5
IS04	Iceland	COVID-19 NATIONAL RESILIENCE COHORT	https://lidanicovid.is/about-the-study/ https://www.hi.is/frettir/merki_um_neikvaed_ahrif_a_gedheilsu_theirra_sem_komist_hafa_i_snertingu_vid_covid_19	SES	Mental and physical health, family, change in lifestyle and social interactions.	6
IS09	Iceland	Health and well-being of Icelanders during Covid-19	https://www.landlaeknir.is/english/ https://www.landlaeknir.is/servlet/file/store93/item43190/Talnabrunnur_September_2020.pdf	Sex/Gender	Mental and physical health, stress, loneliness and sleep, alcohol abuse.	Monthly

IE02	Ireland	Social Impact of COVID-19 Survey February 2021: Well-being	https://www.cso.ie/en/ https://www.cso.ie/en/releasesandpublications/ep/p-covid19/covid-19informationhub/socialandwellbeing/impactofcovid-19surveyfebruary2021well-being	Sex/Gender SES Age Gender Identity	Life satisfaction levels, well-being, mental health, impact of school closures, vaccination attitudes, restriction compliance levels, expectations of life post-COVID, holiday and travel expectations.	5
IE07	Ireland	LGBTI+ Life in Lockdown: One Year Later	https://www.belongto.org/ https://www.belongto.org/wp-content/uploads/2021/06/LGBTI-Life-in-Lockdown-1-Year-Later_BeLonG-To-Youth-Services.pdf	Sex/Gender Age Sexuality Gender Identity	Mental health including anxiety, stress, depression and suicidal ideation, wellbeing, physical and sexual health, home environment and housing.	2
IT02	Italy	"Diario degli italiani" (Diary of the Italians)	https://www.istat.it/it/archivio/255684	Sex/Gender SES Age	Compliance with hygiene rules, use of masks and government directions; the reasons and number of times on average people left home, family climate; opinions on government action and measures taken; trust in the health system and civil protection; daily activities; home care and meal preparation; child care activities; shopping; leisure activities; trust in the government; expectations about the future; compliance with pandemic prevention guidelines; pandemic information channels; what to do in case of infection; propensity to vaccinate: fear of contagion; social relationships; family economic situation; request for financial help and support.	3

IT06	Italy	Children and lockdown: the word from parents (Bambini e lockdown: la parola ai genitori)	https://www.unimib.it/comunicati/bambini-durante-lockdown-vulnerabili-ma-resilienti	Sex/Gender Age	Behaviour of children under 10 years old in relation to sleep-wake rhythms, nutrition, routines, daily life (play, relations with siblings, relations with parents, social relations with peers through technology) and distance learning/educational experience offered by the childcare services (1-5) and primary school (6-10).	2
LV08	Latvia	Study on public attitudes towards COVID-19	https://www.skds.lv/index.php?langs=2053 https://www.mk.gov.lv/lv/petijumi-0	Sex/Gender Age Race Religion	Sources of information about Covid-19, attitude towards the current situation, assessment of the Government's actions, assessment of restrictions in Latvia, attitude towards vaccination.	11
LV10	Latvia	KANTAR Covid-19 barometer	https://www.kantar.lv/kas-mes-esam/ https://www.kantar.lv/?s=Covid-19+barometrs	Sex/Gender Age	Crisis management strategies and communication, everyday life and habits, working conditions and employment, financial issues.	7
LT03	Lithuania	Implications of COVID-19 for the Human Security: Challenges and New Opportunities	https://www.lstc.lt/en/mainpage/ https://www.lstc.lt/wp-content/uploads/2020/12/COVID-19-PASEKMES-VISUOMENES-SAUGUMUI_rezultatu_pristatymas.pdf https://spektras.lmt.lt/REZ_santrauka.php?pW5DGivjoCGQA5YGsyN+LcjmhlC71pMpYKGuu5OXw24=	Sex/Gender SES Age	People's behaviour and thinking related to public and human security. Themes covered include: daily life, work, the quality of democracy, vaccination.	4

LU01	Luxembourg	SEI Socio-Economic Impacts of COVID-19: Collecting the data	https://www.liser.lu/ https://liser.elsevierpure.com/en/publications/sei-socio-economic-impacts-of-covid-19-collecting-the-data https://liser.elsevierpure.com/ws/portalfiles/portal/26967992/2021_03_18_Rapport_SEI.pdf	Sex/Gender SES Age	The impact of COVID-19 and associated policy measures on work & living conditions, daily activities & mobility, time use & household interactions, and health & health behaviours.	2
LU02	Luxembourg	CON-VINCE longitudinal study on mental health of Luxembourgish population during first lockdown	https://researchluxembourg.lu/ https://researchluxembourg.lu/covid-19-taskforce/con-vince/ https://researchluxembourg.lu/2021/07/14/how-covid-19-affects-our-mental-health/ https://www.sciencedirect.com/science/article/pii/S0165178121003875?via%3Dihub#!	Sex/Gender SES Age	The impact of COVID-19 and its associated containment measures on mental health. Gauging of socio-economic factors associated with worsening mental health.	2
NL02	The Netherlands	The Covid19 Gender (IN)equality Survey Netherlands.	https://www.uu.nl/nieuws/zorgen-voor-de-kinderen-tijdens-corona-de-rol-van-de-vader-wordt-weer-kleiner https://www.uu.nl/sites/default/files/Policybrief.pdf https://www.uu.nl/sites/default/files/Policyletter%20COGIS%20juni%202020%20def.pdf https://www.uu.nl/sites/default/files/COGIS%20NL%20Policy%20brief%20nr3.pdf https://pubmed.ncbi.nlm.nih.gov/33253238/	Sex/Gender	(In)equality in caring for children during the pandemic, gender-care gap.	6

NL06	The Netherlands	Loneliness and Mental Health During the COVID-19 Pandemic: A Study Among Dutch Older Adults	https://www.coronatijden.nl/sociale-isolatie-deelprojecten/	Sex/Gender Age Disability	Social isolation, mental health, loneliness, social contacts, informal and formal support, coping strategies, and health.	Project 1: 2 Project 2: 7
PL04	Poland	Życie codzienne w czasach pandemii/ Everyday life in times of a pandemic	http://socjologia.amu.edu.pl/pracownicy/nowe-zaklady#zaklad-teorii-i-badan-praktyk-spolecznych Part 1: http://socjologia.amu.edu.pl/images/pliki/r%c3%b3%c5%bcne_prezentacje_etc/%c5%bbycie_codzienne_w_czasach_pandemii_-_Wydzia%c5%82_Socjologii_UAM_-_WWW.pdf Part 2: http://socjologia.amu.edu.pl/images/pliki/Zycie_codzienne_w_czasach_pandemii._Raport_z_drugiego_etapu_badan_wersja_pe%C5%82na.pdf	Sex/Gender SES Age Educational level	Everyday life, restrictions, change of work situation, changes in behaviour, social relations and life circumstances, reactions to those changes, time and pandemic, opinions on other's actions, emotions, what is missing and what is excessive in the pandemic, positive aspects of the pandemic.	3
PL11	Poland	Sytuacja zawodowa Polaków w trakcie epidemii koronawirusa/ The professional situation of Poles during the coronavirus epidemic	https://cbos.pl/EN/home/home.php https://cbos.pl/PL/szukaj/open_file.php?url=2020/K_126_20.PDF&tytul=Sytuacja+zawodowa+Polak;243;w+w+trakcie+epidemii+koronawirusa https://journals.sagepub.com/doi/10.1177/00368504211025873	Sex/Gender Age	Professional situation of Poles: employment status, changes in work performance, impact of coronavirus on other members of respondent's family.	2

PT04	Portugal	Diários de uma pandemia [Pandemic diaries]	https://ispup.up.pt/about/ https://ispup.up.pt/news/internal-news/acompanhe-os-resultados-do-estudo-%e2%80%9cdiarios-de-uma-pandemia%e2%80%9d/927.html/?lang=en https://www.publico.pt/aovivo/detalhe/adaptaram-cidadaos-pandemia-covid19-diarios-pandemia-239	Sex/Gender SES Age	Adaptation strategies to pandemic, namely in dealing with infection, tests and health care, work and education, social life, wellbeing	2
PT07	Portugal	Redes de Apoio Social e Saúde Psicológica em Jovens LGBT+ durante a pandemia de Covid-19 [Social and Psychological Health Support Networks for Youngsters LGBT+ during Covid-19 Pandemics]	https://www.cig.gov.pt/; https://sigarra.up.pt/fpceup/en/ https://www.cig.gov.pt/wp-content/uploads/2020/05/Relat%C3%B3rio-final-17-de-maio-de-2020_ESTUDO-LGBT-COVID-19.pdf	Sex/Gender SES Age Sexuality Gender Identity	Support networks and psychological health during confinement	5
RO01	Romania	Mental health of cleaning service workers	https://orcid.org/0000-0002-6770-6628 https://journals.sagepub.com/doi/10.1177/00368504211025873	Sex/Gender Age	Mental health of cleaning service workers.	2
RO05	Romania	Living, working and COVID-19	https://www.eurofound.europa.eu/ https://www.eurofound.europa.eu/data/covid-19	Sex/Gender SES Age Nationality	Working conditions, work-life balance, well-being, health and safety of employees, mental health	5

SER01	Serbia	Study on the effects of Covid-19 pandemic on families with children in Serbia (First, Second and Third Wave)	https://www.unicef.org/serbia/en/reports/research-effects-covid-19-pandemic-families-children-serbia https://www.unicef.org/serbia/media/15486/file/Research%20on%20the%20effect%20of%20the%20Covid-19%20pandemic%20on%20families%20with%20children%20in%20Serbia.pdf ; https://www.unicef.org/serbia/media/15881/file/Study%20on%20the%20effects%20of%20Covid-19%20pandemic%20on%20families%20with%20children%20in%20Serbia_second%20wave.pdf; https://www.unicef.org/serbia/media/18641/file/SR%20-%20UNICEF%20COVID-19%20istrazivanje.pdf	Sex/Gender SES Age Disability	Socio-economic position of families with children during COVID-19, mental health and coping with crisis.	3
SK04	Slovakia	How are you Slovakia?	www.sociologia.sav.sk	Sex/Gender Age	Impact of COVID-19, testing and vaccination, personal relationships.	15
SI08	Slovenia	Experimental statistics: Work and education in the time of COVID-19	https://www.stat.si/statweb https://www.stat.si/StatWeb/en/News/Index/9498 https://www.stat.si/StatWeb/en/News/Index/9575 https://www.stat.si/StatWeb/en/News/Index/9631	Sex/Gender	Working at home, remote learning.	12

SI10	Slovenia	COVID-19 pandemic in Slovenia	https://www.nijz.si/ https://www.nijz.si/sl/izsledki-panelne-spletne-raziskave-si-panda	Sex/Gender Age	Safety and restriction measures, deterioration of personal financial situation, mental health, testing, intention to get vaccinated, other health issues (not COVID-19), influence of epidemic on lifestyle (smoking, alcohol consumption etc.)	26
ES03	Spain	DeustoBaróme tro Social XVI	https://barometrosocial.deusto.es/ https://barometrosocial.deusto.es/wp-content/uploads/2021/07/Informe-Deustobarometro-Verano-2021.pdf	Sex/Gender SES Age	Economy and employment, youth. Covid impact on education and public services management.	Ongoing study since 2013- survey is done twice yearly.
ES05	Spain	Inequality Tracker – Real-time Inequality in Spain and the Welfare State in Motion	https://www.caixabankresearch.com/en https://inequality-tracker.caixabankresearch.com/enhttps://www.barcelonagse.eu/research/working-papers/real-time-inequality-and-welfare-state-motion-evidence-covid-19-spain	Sex/Gender SES Age Nationality	Employment, income inequality.	Ongoing as uses bank records for analysis.
SE11	Sweden	The coronavirus SOM survey	https://www.gu.se/en/som-institute/publications/the-coronavirus-som-survey-2020	Sex/Gender SES Age Nationality	Views on vaccination and restrictions, trust in government agencies, media, working and employment.	2
SE12	Sweden	The national public health survey	https://www.folkhalsomyndigheten.se/folkhalsorapportering-statistik/om-vara-datainsamlingar/nationella-folkhalsoenkaten/	Sex/Gender SES Age Disability Nationality Sexuality Gender Identity	General questions on health, well-being, lifestyle, living conditions. Specific questions on COVID: have they been infected, has it affected access to healthcare, work, social relations etc.	Pre-existing biannual survey. In 2021 an extra survey was added that was COVID specific.

TR09	Turkey	Turkey Rapid Needs Assessment on the Impact of Covid-19 on Migrant and Refugee Populations	https://turkey.iom.int/ https://turkey.iom.int/reports/iom-turkey-rapid-needs-assessment-impact-covid19-migrant-and-refugee-populations	Sex/Gender SES Disability Nationality Race	Employment, mental health and psychosocial support, COVID-19 and its effects on vulnerable refugees.	2
UK04	UK	Household Longitudinal Covid-19 survey	https://www.understandingsociety.ac.uk/ https://www.kcl.ac.uk/giwl/assets/does-furlough-work-for-women.pdf	Sex/Gender SES	Changing impact of the pandemic on the welfare of individuals in terms of economic effects, health, care, home schooling, family relationships, ethnic differences, social cohesion.	9

Appendix for section 2 RAS collaborations

2.2 COVID-19 Gender (In)equality Survey, Netherlands

Appendix 2.2.1

Multinomial logistic regression on agreeing/disagreeing with the following statements in April 2022 and before COVID-19 (reference category=neutral answer). Results are presented in logged odds.

1. I am in a position where I can earn a stable income (income_security)
2. I am in a position where I can save (savings_security)
3. I am in a position where I can contribute to my pension (pension_security)

	(1) income_securityPC	(2) income_security	(3) savings_securityPC	(4) savings_security	(5) pension_securityPC	(6) pension_security
Disagree						
1.geslacht	-0.750	-0.408	0.0240	0.160	-0.633	-0.592
	(-1.84)	(-1.05)	(0.08)	(0.63)	(-1.84)	(-1.77)
1.western	0.147	-0.548	1.677*	0.0355	0.360	-0.552
	(0.16)	(-0.66)	(2.41)	(0.06)	(0.50)	(-0.64)
1.non_western	0.535	0.810	-0.0776	0.0439	0.244	0.544
	(1.13)	(1.63)	(-0.18)	(0.11)	(0.57)	(1.22)
1.age_cat1	0.248	0.254	-0.0370	0.471	-0.596	0.0421
	(0.47)	(0.48)	(-0.09)	(1.36)	(-1.30)	(0.10)
1.age_cat2	0.261	0.702	0.203	0.454	-0.452	-0.200
	(0.57)	(1.59)	(0.60)	(1.51)	(-1.17)	(-0.53)
1.opl_laag	-0.0725	1.025	0.258	-0.583	-0.107	-0.140
	(-0.13)	(1.81)	(0.61)	(-1.38)	(-0.21)	(-0.28)
1.opl_midden	0.192	0.434	-0.0426	-0.122	-0.101	-0.199
	(0.46)	(1.04)	(-0.13)	(-0.45)	(-0.28)	(-0.57)
1.self_employed	-0.427	0.599	0.338	0.784	1.056*	1.271*
	(-0.52)	(0.96)	(0.69)	(1.59)	(2.01)	(2.47)
_cons	-0.804	-1.467**	-0.773*	-0.622	-0.126	-0.404
	(-1.58)	(-2.93)	(-2.03)	(-1.92)	(-0.29)	(-1.00)
Agree						

1.geslacht	0.144	0.279	0.124	0.0764	0.106	0.0995
	(0.62)	(1.24)	(0.63)	(0.41)	(0.49)	(0.48)
1.western	-0.373	-1.150**	0.219	-0.470	-0.504	-0.541
	(-0.67)	(-2.68)	(0.35)	(-1.05)	(-0.98)	(-1.13)
1.non_western	-1.539***	-1.064**	-1.048***	-0.839**	-1.974***	-1.217***
	(-4.43)	(-2.86)	(-3.34)	(-2.62)	(-5.75)	(-3.44)
1.age_cat1	-0.127	0.0447	0.00496	0.212	-0.407	0.0243
	(-0.40)	(0.15)	(0.02)	(0.84)	(-1.36)	(0.09)
1.age_cat2	-0.0605	0.421	0.0409	0.280	-0.324	0.164
	(-0.22)	(1.57)	(0.18)	(1.31)	(-1.22)	(0.67)
1.opl_laag	-1.230***	-0.525	-1.127***	-0.948***	-1.075**	-1.177***
	(-3.67)	(-1.40)	(-3.79)	(-3.39)	(-3.09)	(-3.64)
1.opl_midden	-0.862***	-0.826***	-0.982***	-1.047***	-1.063***	-1.053***
	(-3.40)	(-3.49)	(-4.63)	(-5.21)	(-4.53)	(-4.66)
1.self_employed	-0.599	-0.476	-0.639	0.150	-1.538***	-1.341**
	(-1.43)	(-1.16)	(-1.73)	(0.37)	(-3.39)	(-2.97)
_cons	2.820***	2.357***	2.281***	1.896***	2.867***	2.399***
	(9.48)	(8.75)	(9.31)	(8.50)	(9.80)	(9.15)
N	919	937	958	966	883	894

t statistics in parentheses
* p < 0.05, ** p < 0.01, *** p < 0.001

Appendix 2.2.2

Testing for interaction effects between education and gender. Results are presented in logged odds.

	(1) income_securityPC	(2) income_security	(3) savings_securityPC	(4) savings_security	(5) pension_securityPC	(6) pension_security
Disagree						
1.geslacht	-0.540	-0.0401	0.389	0.247	0.0321	0.0321
	(-0.84)	(-0.06)	(0.83)	(0.64)	(0.06)	(0.07)
1.opl_laag	0.0303	0.893	0.474	-0.431	0.254	-0.0424

	(0.04)	(1.23)	(0.87)	(-0.80)	(0.38)	(-0.06)
1.geslacht#1.opl_laag	-0.326	0.258	-0.461	-0.340	-0.899	-0.221
	(-0.28)	(0.23)	(-0.56)	(-0.40)	(-0.89)	(-0.23)
1.opl_midden	0.299	0.693	0.254	-0.0459	0.405	0.366
	(0.58)	(1.31)	(0.57)	(-0.12)	(0.87)	(0.81)
1.geslacht#1.opl_midden	-0.349	-0.835	-0.638	-0.163	-1.265	-1.610*
	(-0.39)	(-0.96)	(-0.99)	(-0.30)	(-1.72)	(-2.13)
1.western	0.150	-0.551	1.692*	0.0422	0.407	-0.486
	(0.17)	(-0.66)	(2.43)	(0.07)	(0.57)	(-0.56)
1.non_western	0.530	0.808	-0.0978	0.0392	0.210	0.531
	(1.12)	(1.63)	(-0.22)	(0.10)	(0.49)	(1.17)
1.age_cat1	0.247	0.235	-0.0314	0.468	-0.588	0.0294
	(0.47)	(0.45)	(-0.07)	(1.35)	(-1.28)	(0.07)
1.age_cat2	0.266	0.729	0.215	0.453	-0.420	-0.161
	(0.58)	(1.64)	(0.64)	(1.50)	(-1.08)	(-0.42)
1.self_employed	-0.427	0.572	0.340	0.780	1.091*	1.319*
	(-0.52)	(0.91)	(0.69)	(1.58)	(2.06)	(2.53)
_cons	-0.870	-1.599**	-0.953*	-0.662	-0.416	-0.681
	(-1.61)	(-2.87)	(-2.23)	(-1.87)	(-0.88)	(-1.52)
Agree						
1.geslacht	0.168	0.131	0.162	0.0815	0.351	0.207
	(0.47)	(0.40)	(0.54)	(0.29)	(1.04)	(0.64)
1.opl_laag	-1.218**	-0.784	-1.313***	-1.144**	-1.011*	-1.140**
	(-2.65)	(-1.62)	(-3.36)	(-3.12)	(-2.11)	(-2.60)
1.geslacht#1.opl_laag	-0.0255	0.601	0.402	0.433	-0.164	-0.0815
	(-0.04)	(0.80)	(0.69)	(0.79)	(-0.24)	(-0.13)
1.opl_midden	-0.844*	-0.916**	-0.888**	-0.971***	-0.842**	-0.962**
	(-2.48)	(-2.91)	(-3.11)	(-3.59)	(-2.66)	(-3.13)
1.geslacht#1.opl_midden	-0.0410	0.204	-0.210	-0.168	-0.477	-0.185

	(-0.08)	(0.43)	(-0.50)	(-0.42)	(-1.02)	(-0.41)
1.western	-0.372	-1.155**	0.221	-0.470	-0.491	-0.534
	(-0.67)	(-2.69)	(0.35)	(-1.05)	(-0.96)	(-1.12)
1.non_western	-1.540***	-1.060**	-1.054***	-0.845**	-1.987***	-1.219***
	(-4.43)	(-2.85)	(-3.36)	(-2.63)	(-5.77)	(-3.44)
1.age_cat1	-0.128	0.0347	-0.0100	0.197	-0.413	0.0218
	(-0.40)	(0.12)	(-0.04)	(0.78)	(-1.38)	(0.08)
0.age_cat2	0	0	0	0	0	0
	(.)	(.)	(.)	(.)	(.)	(.)
1.age_cat2	-0.0600	0.416	0.0390	0.276	-0.317	0.168
	(-0.22)	(1.55)	(0.17)	(1.29)	(-1.20)	(0.69)
0.self_employed	0	0	0	0	0	0
	(.)	(.)	(.)	(.)	(.)	(.)
1.self_employed	-0.599	-0.486	-0.641	0.143	-1.522***	-1.320**
	(-1.43)	(-1.18)	(-1.74)	(0.35)	(-3.35)	(-2.92)
_cons	2.809***	2.427***	2.271***	1.901***	2.762***	2.348***
	(8.77)	(8.30)	(8.59)	(7.83)	(8.96)	(8.32)
N	919	937	958	966	883	894

Appendix 2.2.3

Multinomial logistic regression using no change as base category. Results are presented in logged odds.

	(1)	(2)	(3)	
	income_changecat	pension_changecat		savings_changecat
positive_change				
1.geslacht	-0.330	-0.353	-0.230	
	(-1.04)	(-1.22)	(-1.11)	
1.western	1.094	1.514**	0.548	
	(1.90)	(3.03)	(1.21)	
1.non_western	1.502***	1.602***	0.888**	
	(3.43)	(3.97)	(2.60)	
1.age_cat1	0.140	0.515	0.665*	
	(0.30)	(1.29)	(2.31)	

1.age_cat2	0.455	0.431	0.492
	(1.22)	(1.20)	(1.93)
1.opl_laag	0.965*	0.694	0.669*
	(2.19)	(1.46)	(2.11)
1.opl_midden	0.338	0.639*	0.431
	(0.97)	(2.12)	(1.91)
1.self_employed	0.538	0.622	0.895*
	(0.96)	(0.97)	(2.54)
_cons	-3.324***	-3.253***	-2.337***
	(-8.16)	(-8.42)	(-8.63)
negative_change			
1.geslacht	-0.327	-0.444*	-0.0983
	(-1.69)	(-2.14)	(-0.60)
1.western	0.815*	0.929*	0.174
	(2.00)	(2.14)	(0.43)
1.non_western	0.640	0.512	0.160
	(1.81)	(1.30)	(0.47)
1.age_cat1	-0.223	-0.294	0.195
	(-0.88)	(-1.10)	(0.91)
1.age_cat2	-0.325	-0.443	0.00557
	(-1.45)	(-1.85)	(0.03)
1.opl_laag	0.436	0.372	-0.273
	(1.40)	(1.13)	(-0.90)
1.opl_midden	0.452*	0.231	0.262
	(2.20)	(1.04)	(1.50)
1.self_employed	0.149	0.306	-0.0306
	(0.38)	(0.65)	(-0.09)
_cons	-1.629***	-1.539***	-1.178***
	(-7.34)	(-6.71)	(-6.14)
N	912	874	953

2.4 Transcare, Belgium

Appendix 2.4.1

Questions used for analyses

Multiple-choice questions concerning barriers to healthcare were the following:

Q33: 'At this moment, is your access to hormones restricted due to the current COVID-19 outbreak?'

- Yes
- No

Q36: 'At this moment, is your access to hair removal treatments restricted due to the current COVID-19 outbreak?'

- Yes
- No

Q38: 'Have you had a surgery appointment cancelled or postponed due to the current COVID-19 outbreak?'

- Yes
- No
- Not yet, but I expect it will

Q42: 'Is the current COVID-19 outbreak affecting aftercare of a recent surgery?'

- No, not affected recoded to 'no'
- I can't get an appointment for aftercare recoded to 'yes'
- A scheduled appointment was cancelled without replacement recoded to 'yes'
- An appointment has been postponed recoded to 'yes'
- Complications (e.g., secondary bleeding) have not been treated recoded to 'yes'
- I'm afraid to go to a doctor or a hospital recoded to 'yes'
- Other: 8 recoded to 'no', 28 recoded to 'yes'

Q48: 'Is your access to your mental healthcare professional restricted by the current COVID-19 outbreak?'

- Yes
- No

Q44: "Does the current COVID-19 outbreak limit your access to the following aspects of trans healthcare?"

_1: "Medical material that is important after surgery (e.g., vaginal dilators, chest compresses)"

- Yes
- No

_2: "Other material (e.g., binders, packing material)"

- Yes
- No

_3: "Non-medical supplies (e.g., make-up, shaving supplies, wigs)"

- Yes
- No

_4: "Counselling services (e.g., peer-to-peer counselling)"

- Yes
- No

Q100: What (other) kind of services would you like to see from the (trans) health

providers in your country in this current situation?

[Open answer option]

Q101: What (other) kind of services would you like to see from your local (trans) health organisations in this current situation?

[Open answer option]

2.7 Health Interview Survey COVID-19, Belgium

Appendix 2.7.1

Question Anxiety (GAD-7 scale)

During the past two weeks, how often have you encountered difficulties such as:

- feeling nervous or anxious,
- not being able to stop worrying or not being able to control your worries,
- worrying to much about different things,
- having difficulty relaxing,
- being so restless that it's difficult for you to keep still,
- being easily upset or irritable and feeling scared
- feeling afraid, as if something awful might happen

One can answer these questions on a scale where 0 = "not at all", 1 = "Yes, several days", 2 = "Yes, more than half the time", 3 =" Yes, nearly every day".

Question Resilience (BRS scale)

Please indicate your level of agreement with each of the following statements:

- I tend to bounce back quickly after hard times
  I have a hard time making it through stressful events,
  It does not take me long to recover from a stressful event,
  It is hard for me to snap back when something bad happens,
  I usually come through difficult times with little trouble,
  I tend to take a long time to get over set-backs in my life.

One can answer these questions on a scale where 1 = "Strongly disagree", 2 = "Disagree", 3 = "Neutral", 4 =" Agree", 5 =" Strongly agree".

Appendix for section 3 EU analysis

Appendix 3.1

In the tables below a list of variables used for the analysis is reported, divided by areas.

Employment, work-life balance, and inclusion

Indicator name	Original question wording	Eurofound code	Original coding	Recoding
Proportion of people who lost their job during the COVID-19 crisis	D002: During the COVID-19 pandemic, have you lost your job(s)/contract(s) or work assignments? D001: Which of these categories best describes your current situation? D235: Which of these categories best describes your situation in the month before the COVID-19 outbreak?	D002 (round 1); combination of D001 and D235 (rounds 2, 3 and 5)	D002: **1.** Yes, permanently 2. Yes, temporarily 3. No D001/D235: **1.** Employee 2. Self-employed with employees 3. Self-employed without employees 4. Unemployed 5. Unable to work due to long-term illness or disability 6. Retired 7. Full-time homemaker/fulfilling domestic tasks 8. Student	0 = Did not lose their job 1 = Lost their job
Proportion of people saying that they felt too tired after work to do some of the household jobs which need to be done	Round 1: How often in the last 2 weeks have you...? Rounds 2, 3 and 5: How often in the last month, have you…? *Felt too tired after work to do some of the household jobs which need to be done*	D004_02	**1.** Always 2. Most of the time 3. Sometimes 4. Rarely 5. Never	0 = 3, 4, 5 1 = 1, 2
Proportion of people that found that their job prevented them from giving the time they wanted to their family	Round 1: How often in the last 2 weeks have you...? Rounds 2, 3 and 5: How often in the last month, have you…? *Found that your job prevented you from giving the time you wanted to your family*	D004_03	**1.** Always 2. Most of the time 3. Sometimes 4. Rarely 5. Never	0 = 3, 4, 5 1 = 1, 2
Proportion of people saying they felt left out	To what extent do you agree or disagree with the	C203_05 (round	1. Strongly agree	0 = 3, 4, 5 1 = 1, 2

of society	following statements? I feel left out of society	2 and 3); C529_01 (round 5)	2. Agree 3. Neither agree nor disagree 4. Disagree 5. Strongly disagree	

Care and household work

Indicator name	Original question wording	Eurofound code	Original coding	Answer categories/range
Means of hours per week spent on caring for children or grandchildren	Last month, on average, how many hours per week were you involved in any of the following activities outside of paid work? If none or not applicable to you, please enter 0. *Caring for and/or educating your children, grandchildren*	D212_02	0-168	0-168
Mean of hours per week spent on caring for elderly or disabled relatives	Last month, on average, how many hours per week were you involved in any of the following activities outside of paid work? If none or not applicable to you, please enter 0. *Caring for elderly / disabled relatives*	D212_03	0-168	0-168
Means of hours per week spent on cooking and housework	Last month, on average, how many hours per week were you involved in any of the following activities outside of paid work? If none or not applicable to you, please enter 0. *Cooking and housework*	D212_04	0-168	0-168

Trust in institutions

Indicator name	Original question wording	Eurofound code	Original coding	Answer categories/range
Mean scores of trust in country's government	Please answer on a scale of 1-10 how much you personally trust each of the following institutions: *Your country's government*	C007_03	1 ("Do not trust at all") – 10 ("Trust completely")	1-10
Mean scores of trust in the European Union	Please answer on a scale of 1-10 how much you personally trust each of the following institutions: *The European Union*	C007_04	1-10	1-10
Mean scores of trust in the healthcare system	Please answer on a scale of 1-10 how much you personally trust each of the following institutions: *The healthcare system*	C007_05	1-10	1-10

Perceived health and resilience

Indicator name	Original question wording	Eurofound code	Original coding	Answer categories/range
Proportion of people reporting poor or very poor general health status	In general, how is your health?	C004_01	**1.** Very good 2. Good 3. Fair 4. Bad 5. Very bad	0 = 1, 2, 3 1 = 4, 5
Proportion of people who say they have a hard time dealing with problems in their lives	To what extent do you agree or disagree with the following statements? *I find it difficult to deal with important problems that come up in my life*	C003_03	**1.** Strongly agree 2. Agree 3. Neither agree nor disagree 4. Disagree 5. Strongly disagree	0 = 3, 4, 5 1 = 1, 2

Appendix for section 4 RESISTIRÉ Mobile and Web App

Appendix 4.1: Socio-demographic questions

All the following questions are compulsory.

What is your birth year?
After 2004 (not eligible)

What is your country of residence?
Austria Belgium Bulgaria Croatia, Republic of Cyprus Czech Republic Denmark Estonia Finland France Germany Greece Hungary Iceland Ireland Italy Latvia Lithuania Luxembourg Malta Netherlands Poland Portugal Romania Serbia Slovakia Slovenia Spain Sweden Turkey, United Kingdom,
Not listed (Not Eligible)

Do you identify as a member of a minority ethnic group in your country of residence?
Yes | No |Prefer not to say

Are you a
Woman |Man | Non-binary | Other | Prefer not to say

Is your gender the same as the sex that was assigned to you at birth?
Yes | No | Prefer not to say

What is your sexual orientation?
Bisexual | Gay | Heterosexual | Lesbian |Other |Prefer not to say

What is your present relationship status?
Single | Cohabitation, married or in a civil partnership | Separated, divorced or widowed

Do you consider yourself to have a disability or long-term chronic illness?
Yes | No | Prefer not to say

What is your highest level of education?
Primary education (up to 7 years of schooling) |
Secondary education (up to 12 years of schooling) | Bachelor's or equivalent level |
Master's, Doctoral or equivalent level

How many people live in your household excluding you?
0-15

Appendix 4.2: Employment module questions

What is your current employment status? [compulsory]
Employed | Self-employed | Unemployed and looking for work | Unemployed and not looking for work| Retired | In education or training | Other

For those who respond 'Employed':
What type of employment contract do you currently have?
Fixed-term | Indefinite period or permanent | Agency staff or temporary employment | Zero hours | Freelancer, consultant or contractor | Other

In what sector do you work?
Private | Public | Non-profit | Other

What is the main activity of the organisation where you work?
Agriculture, Hunting, Forestry and Fishing| Mining and Quarrying | Manufacturing | Electricity, Gas and Water | Construction | Wholesale and Retail Trade and Restaurants and Hotels | Transport, Storage and Communication | Financing, Insurance, Real Estate and Business Services | Community, Social and Personal Services | Other

What is your main current occupation?
Managers/Professional | Technicians and associate professionals | Clerical support, Service and sales workers | Skilled agricultural, forestry and fishery workers | Craft and related trades workers | Plant and machine operators, and assemblers | Elementary occupations | Armed forces occupations | Other

Do you currently work full-time or part-time?
Full-time | Part-time | Don't know

[if part-time = yes]
Why do you work part-time?
Could not find a full-time job | Own illness or disability | Other family or personal responsibilities | In education or training | Other

Back to all those who responded 'Employed':
Did you need access to financial support from the government as a result of the COVID-19 pandemic?
Yes | No

For those who respond 'Self-employed':
What is your main business activity?
Agriculture, Hunting, Forestry and Fishing| Mining and Quarrying | Manufacturing | Electricity, Gas and Water | Construction | Wholesale and Retail Trade and Restaurants

and Hotels | Transport, Storage and Communication | Financing, Insurance, Real Estate and Business Services | Community, Social and Personal Services | Other

What is your main current occupation?
Managers/Professional | Technicians and associate professionals | Clerical support, Service and sales workers | Skilled agricultural, forestry and fishery workers | Craft and related trades workers | Plant and machine operators, and assemblers | Elementary occupations | Armed forces occupations

Do you currently work full-time or part-time?
Full-time | Part-time

[if part-time = yes]
Why do you work part-time?
Could not find a full-time job | Own illness or disability | Other family or personal responsibilities | In education or training | Other

Back to all those who respond 'Self-employed':
Did you experience a change in the quantity of business as a result of the COVID-19 pandemic?
Decreased a lot | Decreased a little | Increased a little | Increased a lot | Prefer not to say

Did you need access to financial support from the government as a result of the COVID-19 pandemic?
Yes | No

Are you worried about the future sustainability of your business?
Not at all | Very little | Somewhat | To a great extent | Prefer not to say

Do you plan to stay in self-employment in the future?
Yes | No | Don't know

For those who respond 'Unemployed and looking for work':
Why are you currently unemployed?
Could not find work | Redundancy | Own illness or disability | Other family or personal responsibilities | In education or training | Other

Have you done any training since March 2020?
Yes, self-funded | Yes, government funded | No training

Would you like to work full-time or part-time?
Full-time | Part-time | Don't know

For those who respond 'Unemployed and not looking for work':
Why are you currently not looking for work?
Could not find work | Redundancy | Own illness or disability | Other family or personal responsibilities | In education or training | Other

Do you plan to be in paid work in the next two years?
Yes, full-time | Yes, part-time | No | Don't know

For those who respond 'Retired':
Did you retire in or after March 2020?
Yes | No

Did you retire as a result of the COVID-19 pandemic?
Yes | No

Do you currently engage in any paid work in addition to your pension?
Yes | No

Appendix 4.3: Care module questions

How many dependent children (aged 0-17) do you have? [compulsory]
0-15

How many adult children (aged 18 or above) do you have? [compulsory]
0-15

Do you have care responsibilities for one or more adults over 18 years of age? (e.g., an older parent, relative or person with a disability) [compulsory]
Yes | No

What is your current relationship status? [compulsory]
Single (never married) | Cohabitation, married or in a civil partnership | Separated, divorced or widowed

[IF relationship status = 'Cohabitation, married or in a civil partnership':
Is your partner…?
A woman |A man | Non-binary | Other]

Were you in paid work at any time during the COVID-19 pandemic? [compulsory]
Yes | No

[IF paid work during COVID=yes
Did your employer offer extra leave for care reasons during the COVID-19 pandemic?
Yes | No | Don't know]

[IF 'Do you have care responsibilities for one or more adults over 18 years of age?'=yes
Do you normally have access to someone who provides you with dependent adult care at home (e.g., home assistance, grandparents, neighbours etc.)?
Never | Rarely | Sometimes | Often | Always

Do you normally have access to external institutions/someone who provides you with dependent adult care outside the home (e.g., care home)?
Never | Rarely | Sometimes | Often | Always

Compared to before the COVID-19 pandemic, how much time did you spend on dependent adult care during the pandemic?
Much less time | Less time | The same time | More time | Much more time

Was your access to services for adult care (such as care homes, home assistance etc.) interrupted at any time as a result of COVID-19 restrictions? [compulsory]
Yes | No | Don't know

[if yes to previous question & paid work during pandemic = yes
Did the absence of dependent adult care facilities affect your ability to work?
Not at all | Very little | Somewhat | To a great extent]

[IF children under 18 = 1+
Do you normally have someone who provides childcare at home (e.g., a nanny, home assistance, grandparents, neighbours etc.)?
Never | Rarely | Sometimes | Often | Always

Do you normally have access to childcare outside the home (e.g., kindergarten, nurseries, childminder)?
Never | Rarely | Sometimes | Often | Always

Compared to before the COVID-19 pandemic, how much time did you spend on childcare during the pandemic?
Much less time | Less time | The same time | More time | Much more time

[if relationship status = Cohabitation, married or in a civil partnership':
Compared to before the COVID-19 pandemic, how much time did your partner spend on childcare during the pandemic?
Does not apply | Much less time | Less time | The same time | More time | Much more time

I believe childcare will be shared more equally between me and my partner in the future as a result of the COVID-19 pandemic.
Does not apply | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree]

Was your access to schools/nurseries/kindergarten interrupted at any time as a result of

the COVID-19 pandemic? [compulsory]
Yes | No | Don't know

[if yes to previous question & paid work =yes:
Did the absence of childcare facilities during school/nursery closures affect your ability to work?
Not at all | Very little | Somewhat | To a great extent]

Has/Have your child(ren) been homeschooled for any period of time during the COVID-19 pandemic? [compulsory]
Yes | No

[if home schooled children=yes:
Who was responsible for homeschooling your child(ren)?
Mostly myself | Mostly me and somewhat by partner | Equally distributed between me and partner | Mostly partner and somewhat me | Only partner | Children themselves | Other]

[IF dependent child <18 = 1+ or dependent adult care =yes
Did you take leave to care for children or a dependent adult at any time during the COVID-19 pandemic?
Yes | No]

[For All:
Compared to before the COVID-19 pandemic, how much time did you spend on household chores during the pandemic?
Much less time | Less time | The same time | More time | Much more time

[if relationship status = Cohabitation, married or in a civil partnership':
Compared to before the COVID-19 pandemic, how much time did your partner spend on household chores during the pandemic?
Much less time | Less time | The same time | More time | Much more time

I believe household chores will be shared more equally between me and my partner in the future as a result of the COVID-19 pandemic.
Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree]

Compared to before the COVID-19 pandemic, how was your mental health during the COVID-19 pandemic?
A lot worse | Worse | No change | Better | A lot better

Compared to before the COVID-19 pandemic, how was your physical health during the COVID-19 pandemic?
A lot worse | Worse | No change | Better | A lot better]

Appendix 4.4: Pay module questions

Were you in paid work at any time during the COVID-19 pandemic? [compulsory]
Yes | No
[if paid work during covid = yes:
Was your career progression affected as a result of the COVID-19 pandemic?
A lot worse | Worse | No change | Better | A lot better

How was your pay affected as a result of the COVID-19 pandemic?
I got a pay increase | My pay was reduced | No change

If you usually receive regular performance ratings/scores at work, how were they affected during the COVID-19 pandemic?
Decreased a lot | Decreased a little | No change | Increased a little | Increased a lot | Does not apply]

What is your current employment status? [compulsory]
Employed | Self-employed | Unemployed and looking for work | Unemployed and not looking for work | Retired | In education or training

[if current employment status=retired:
Has the COVID-19 pandemic affected your retirement income (e.g., pension, savings, investments)?
Not at all | Very little | Somewhat | To a great extent

Has the COVID-19 pandemic affected your ability to save or make investments for other purposes?
Not at all | Very little | Somewhat | To a great extent]

[if current employment status= not retired:
Has the COVID-19 pandemic affected your ability to save for retirement?
Not at all | Very little | Somewhat | To a great extent

Has the COVID-19 pandemic affected your ability to save or make investments for other purposes?
Not at all | Very little | Somewhat | To a great extent]

What is your current relationship status? [compulsory]
Single (never married) | Cohabitation, married or in a civil partnership | Separated, divorced or widowed

[if relationship status='Cohabitation, married or in a civil partnership':
Currently, who earns more?

I earn more | My partner earns more | My partner and I earned about the same | I don't know

Before the COVID-19 pandemic, who earned more?
I earned more | My partner earned more | My partner and I earned about the same | I don't know| Does not apply]

Did you have any kind of debt before the COVID-19 pandemic (e.g., debt from credit cards but excluding any residential mortgage)?
Yes | No

Did you earn any income (excluding income from your paid work) from other sources such as rent from property, dividend on shares, profits from sale of real estate, or income from other investments, before the COVID-19 pandemic?
Yes | No

How would you rate your level of satisfaction with your overall financial situation BEFORE the COVID-19 pandemic?
Very dissatisfied | Dissatisfied | Unsure | Satisfied | Very satisfied

Compared to before the COVID-19 pandemic, how was your overall financial situation DURING the COVID-19 pandemic?
A lot worse | Worse | No change | Better | A lot better

Did you borrow money from the bank or any financial institution for any purpose (except a residential mortgage) during the COVID-19 pandemic?
Yes | No

Did you borrow money from family, friends or relatives for any purpose (except a residential mortgage) during the COVID-19 pandemic?
Yes | No

Have you been able to pay your bills regularly during the COVID-19 pandemic?
Never | Rarely | Sometimes | Often | Always

How would you rate your level of satisfaction with your CURRENT financial situation?
Very dissatisfied | Dissatisfied | Unsure | Satisfied | Very satisfied

Are you worried about paying your bills in the future?
Not at all | Very little | Somewhat | To a great extent

What do you think your financial situation will be like in the NEXT YEAR compared to now?
A lot worse | Worse | No change | Better | A lot better

Appendix 4.5: Working from home

Did you work remotely BEFORE the COVID-19 pandemic? [compulsory]
Not at all | Once a week | A few times a week | Several times a week | All the time| Not applicable - not in paid work at this time

[IF Did you work remotely BEFORE the COVID-19 pandemic? does NOT equal 'not applicable - not in paid work at this time':
Did your immediate manager/supervisor support remote working before the COVID-19 pandemic?
Not at all | Very little | Neutral | Somewhat | To a great extent | Not applicable]

Did you work remotely at any time DURING the COVID-19 pandemic? [compulsory]
Not at all | Once a week | A few times a week | Several times a week | All the time | Not applicable - not in paid work at this time

[IF working remotely during the pandemic does NOT equal 'not applicable - not in paid work at this time':
Did the time you spent on work change during the COVID-19 pandemic?
Decreased a lot | Decreased | No change | Increased | Increased a lot

How productive were you while working during the COVID-19 pandemic?
Much less productive | Less productive | About the same | More productive | Much more productive

[IF working remotely during the pandemic does NOT equal 'not at all' OR 'not applicable - not in paid work at this time':
Did you work remotely during the pandemic because you were required to either by your employer or the government?
Yes | No | Don't know

Did you have a dedicated space at home which you could work from during pandemic?
Yes, a dedicated room | Yes, a dedicated desk or table in multipurpose room | Yes, but I worked remotely outside of the home | No, so I worked in an ad hoc location at home | No, so I worked remotely outside of the home

[IF dedicated space equals 'Yes but I worked remotely outside of the home OR 'No, so I worked remotely outside of the home':
Where did you work remotely outside of the home?

FREE TEXT]

Did you have all the equipment you needed (e.g., laptop or computer, ergonomic chair, headphones, webcam etc.) to carry out your work remotely?
Not at all | To some extent | Yes, I had everything I needed

Who provided the equipment? (Select all that apply)
My employer | I had the equipment already | I had to purchase new equipment myself

[IF dedicated space does NOT equal 'Yes but I worked remotely outside of the home OR 'No, so I worked remotely outside of the home':
Were you interrupted by individuals outside of work (e.g., parents, children, partner, neighbours) while working from home?
Not at all | Very little | Somewhat | To a great extent

Were you interrupted by non-work activities (e.g., household chores, care work) while working from home?
Not at all | Very little | Somewhat | To a great extent]

Do you feel your immediate manager or supervisor supported you while working remotely?
Not at all | Very little | Somewhat | To a great extent | Not applicable

Do you feel your organisation supported you (e.g., through specific policies, services etc.) while working from home?
Not at all | Very little | Somewhat | To a great extent | Not applicable

Did working remotely during the COVID-19 pandemic affect your mental well-being?
A lot worse | Worse | No change | Better | A lot better

Did working remotely during the COVID-19 pandemic affect your physical well-being?
A lot worse | Worse | No change | Better | A lot better

How would you describe your work-life balance while working remotely during the COVID-19 pandemic?
A lot worse | Worse | No change | Better | A lot better

Did you feel isolated due to working remotely during the COVID-19 pandemic?
Not at all | Very little | Somewhat | To a great extent

Overall, how did you find working remotely during the pandemic?
Did not like it at all | Liked it a little | Neutral | Liked it somewhat | Liked it very much

If you have a partner, did they work remotely at any time during the COVID-19

pandemic?
Not applicable | Not at all | Once a week | A few times a week | Several times a week | All the time

Are you CURRENTLY working remotely? [compulsory]
Not at all | Once a week | A few times a week | Several times a week | All the time | Not applicable - not in paid work at this time

[IF working remotely currently does NOT equal 'not applicable - not in paid work at this time':
Do you believe your employer would support remote working in the future?
Not at all | Very little | Neutral | Somewhat | To a great extent | Not applicable

What kind of work arrangements do you think your employer is most likely to adopt over the next few years?
Working on site only | Working remotely only | Combination of working remotely and working on site | Not applicable

Looking ahead, what would be your preferred way of working over the next few years?
Working on site only | Working remotely only | Combination of working remotely and working on site

Appendix 4.6: Community and safety module questions

This module includes questions regarding different forms of violence, which can make some people feel uncomfortable or distressed. Please engage in self-care as you fill out this survey. Remember that you can always leave the survey, skip questions, or choose the answer "prefer not to say".

How would you describe the place you lived in March 2020?
Big city and outskirts | Small city/town and outskirts| Rural village | Remote area

How would you describe the place you live now?
Big city and outskirts | Small city/town and outskirts| Rural village | Remote area

Were you able to easily access green spaces in March 2020?
Yes, within 5 minutes | Yes, within 10 minutes | Yes, within 30 minutes | Yes, within 45 min | No

Are you able to easily access green spaces now?
Yes, within 5 minutes | Yes, within 10 minutes | Yes, within 30 minutes | Yes, within 45 min | No

What is your current citizenship status?
Citizen | Long-term residence permit | Short-term residence permit | Asylum seeker |

Other

How connected do you feel now to your friends and family compared to before the pandemic?
Much less I Less I The same I More I Much more

How connected do you feel now to your neighbours/local community compared to before the pandemic?
Much less I Less I The same I More I Much more

How connected do you feel now to your co-workers/fellow students compared to before the pandemic?
Much less I Less I The same I More I Much more | Not applicable

Has the pandemic made you feel less safe going out alone? (Select all that apply)
Yes, in the daytime | Yes, at night | Yes, day and night | Yes, going through certain streets/neighbourhoods| Yes, going to places where there are few people | No, I feel the same as I did before | No, I feel more safe

Has the pandemic made you feel less safe at home? (Select all that apply)
Yes, when I am alone |Yes, when my partner is at home | Yes, when my family is at home | Yes, because of my neighbours | No, I feel the same as I did before | No, I feel more safe

Has the pandemic made you feel less safe online? (Select all that apply)
Yes, in a work context | Yes, in a personal or social context | Yes, in an educational context | Yes, in another context | No, I feel the same as I did before | No, I feel more safe

Have you taken any actions to feel more safe since the pandemic? (Select all that apply)
Yes, I avoid some places | Yes, I go outside more | Yes, I ask someone to accompany me when I go outside | Yes, I moved house | Yes, I sought out information/guidance | Yes, I joined a community/support group | Yes, I joined an activist/social movement | Yes, other | No

Have you experienced any of the following forms of violence in the last three years? (Select all that apply) [compulsory]
Physical violence (e.g. pushing, kicking etc.)| Psychological violence (e.g., threatening comments, angry outbursts etc.)| Economic violence (e.g. restricting access to money, damaging property etc. | Sexual violence (e.g. forced sexual intercourse, forced sexual activity while unable to consent etc.) | Sexual harassment (e.g. intrusive questions, unwelcome hugging etc.) | Online violence (e.g. sharing photos or videos of you without your consent, offensive comments online etc.) | Other form of violence| No | Prefer not to answer

[if at least one form of violence selected:
When did this violence take place? (Select all that apply)

During the day | At night

Where did this violence take place? (Select all that apply)
At home | At work/school | In a public place | While receiving welfare/medical support | Online | Other location

Who caused you harm? (Select all that apply)
Partner/ex-partner | Family member | Friend | Neighbour| Healthcare professional | Work manager | Work colleagues | Someone else I know | Someone else I don't know

Did you seek any support in relation to this experience of abuse? (Select all that apply)
Yes, emotional/psychological support | Yes, medical support | Yes, legal support |Yes, financial support | Yes, support with information/guidance | Yes, support with housing/shelter | Yes, support with food and basic goods | Yes, support with paperwork | Yes, support with care | Yes, support with children's education | Yes, support with transport| Yes, other | No

[if 'did you seek support' does NOT = no:
Were you successful in accessing this support?
Not at all | Very little | Somewhat | To a great extent

[If were you successful does NOT = not at all:
Who offered you support? (Select all that apply)
Friends | Family | Neighbours | Police | Lawyers | Faith group/organisation | Private medical/psychological service | Public medical/psychological service | Public welfare/benefits service | Education provider | Online resources/community | National charity/non-profit organisation | Local charity/non-profit organisation | Informal/grass roots group | Other]

Has anyone you know experienced any form of violence in the last three years? (Select all that apply)
Yes, partner | Yes, family member | Yes, friend | Yes, neighbour| Yes, colleague | Yes, other | No, not that I am aware

[if know someone experiencing abuse = yes:
Did you offer them any assistance? (Select all that apply)
Yes, financial support |Yes, housing/shelter | Yes, food and basic goods |Yes, information/guidance | Yes, technological devices | Yes, transport |Yes, emotional support | Yes, support with paperwork | Yes, support with care | Yes, support with children's education | Yes, other | No]

In general, how were your levels of anxiety over the last three years compared to before the pandemic?
Much lower I Lower I The same I Higher I Much higher

In general, how were your levels of loneliness over the last three years compared to before the pandemic?
Much lower I Lower I The same I Higher I Much higher

In general, how were your levels of physical activity over the last three years compared to before the pandemic?
Much lower I Lower I The same I Higher I Much higher

In general, how were your levels of happiness over the last three years compared to before the pandemic?
Much lower I Lower I The same I Higher I Much higher