DISSERTATIONES
SOCIOLOGICAE
UNIVERSITATIS
TARTUENSIS
36

KRISTI NERO

Dynamic vulnerability in the COVID-19 pandemic: experiences of the socially marginalised in Europe

DISSERTATIONES SOCIOLOGICAE UNIVERSITATIS TARTUENSIS

36

DISSERTATIONES SOCIOLOGICAE UNIVERSITATIS TARTUENSIS
36

KRISTI NERO

Dynamic vulnerability in the COVID-19 pandemic: experiences of the socially marginalised in Europe

UNIVERSITY OF TARTU
Press
1632

Institute of Social Studies, University of Tartu, Estonia

Dissertation accepted in fulfilment of the requirements for the degree of Doctor of Philosophy (in Sociology) on October 13, 2025, by the Council of the Institute of Social Studies, University of Tartu.

Supervisors: Professor Kati Orru
Institute of Social Studies, University of Tartu

Dr. Tor-Olav Nævestad
Institute of Transport Economics, Norway

Opponent: Professor Alexander Fekete
Institute of Rescue Engineering and Civil Protection
TH Köln – University of Applied Sciences, Germany

The dissertation will be defended on November 11, 2025, at the Senate Hall of the University of Tartu.

The publication of this dissertation is granted by the Institute of Social Studies, University of Tartu. The studies included in this thesis were supported by the H2020 project BuildERS – “Building European Communities' Resilience and Social Capital” N° 833496.

ISSN 1736-0307 (print)
ISBN 978-9908-57-041-9 (print)
ISSN 2806-2590 (pdf)
ISBN 978-9908-57-042-6 (pdf)

University of Tartu Press
www.tyk.ee

CONTENTS

LIST OF ORIGINAL PUBLICATIONS

This dissertation is based on the following original publications which will be referred to in the dissertation by their respective Roman numbers.

Study I: Orru, K., Nero, K., Nævestad, T.-O., Schieffelers, A., Olson, A., Airola, M., Kazemekaityte, A., Lovasz, G., Scurci, G., Ludvigsen, J., & de los Rios Pérez, D. A. (2021). Resilience in care organisations: Challenges in maintaining support for vulnerable people in Europe during the COVID-19 pandemic. Disasters, 45(S1), S48–S75. https://doi.org/10.1111/disa.12526

Study II: Nero, K., Orru, K., Nævestad, T.-O., Olson, A., Airola, M., Savadori, L., Kazemekaityte, A., Lovasz, G., & Kajganovic, J. (2023). Mechanisms behind COVID-19 scepticism among socially marginalised individuals in Europe. *Journal of Risk Research*, *26*(6), 675–696. https://doi.org/10.1080/13669877.2023.2208119

Study III: Nero, K., Orru, K., Nævestad, T.-O., Olson, A., Schobert, M., Windsheimer, P., Keränen, J., Jukarainen, P., & Kajganovic, J. (2023). Care organisations role as intermediaries between the authorities and the marginalised in crisis management. *International Journal of Disaster Risk Reduction*, *86*. https://doi.org/10.1016/j.ijdrr.2022.103516

Related studies:

Nævestad, T.-O., Orru, K., Nero, K., Schieffelers, A., Olson, A., Ludvigsen, J., Airola, M., Savadori, L., Krüger, M., Gabel, F., & Hesjevoll, I. (2022). Self-imposed social isolation among clients of social care organisations in the COVID-19 pandemic. *International Journal of Disaster Risk Reduction*, *82*, 103360. https://doi.org/10.1016/j.ijdrr. 2022.103360

Olson, A., Naevestad, T.-O., Orru, K., Nero, K., Schieffelers, A., & Frislid Meyer, S. (2023). The impact of the COVID-19 pandemic on socially marginalised women: Material and mental health outcomes. *International Journal of Disaster Risk Reduction*, *93*, 103739. https://doi.org/10.1016/j.ijdrr.2023.103739

Orru, K., Klaos, M., Nero, K., Gabel, F., Hansson, S., & Nævestad, T. (2023). Imagining and assessing future risks: A dynamic scenario-based social vulnerability analysis framework for disaster planning and response. *Journal of Contingencies and Crisis Management*, *31*(4), 995–1008. https://doi.org/10.1111/1468-5973.12436

Schobert, M., Orru, K., Gabel, F., Nero, K., Windsheimer, P., Klaos, M., & Nævestad, T.-O. (2023). The three A's of social capital in crises: Challenges with the availability, accessibility and activatability of social support. International Journal of Disaster Risk Reduction, 92, 103704. https://doi.org/10.1016/j.ijdrr.2023.103704

Siimsen, I., Orru, K., Naevestad, T.-O., Nero, K., Olson, A., Kaal, E., & Meyer, S. F. (2023). Socio-economic outcomes of COVID-19 on the marginalised: Who have taken the hardest hit? International Journal of Disaster Risk Reduction, 93, 103723. https://doi.org/10.1016/j.ijdrr.2023.103723

Author's contribution

As the author of this dissertation, I have contributed to these studies as follows:

Study I: The author contributed to refining the research instrument based on the pilot interviews. The author was responsible for data collection in Estonia, both document analysis and expert interviews, and compiling Estonian country report, analysing all country reports and interpreting the results with the lead author. The author made major contribution and took lead of writing up the findings of the article.

Study II: The author contributed to refining and translating the survey questionnaire. In Estonia, the author conducted all survey interviews in Russian and half of those in Estonian. The author was responsible for analysing the qualitative data from all country reports, developing theoretical framework, as well as compiling, drafting and revising the paper based on supervisor, co-author and reviewer feedback.

Study III: The author contributed to the development of research tools, conducting Estonian workshop and international online colloquium. The author was responsible for analysing all country reports; as well as compiling, drafting and revising the paper based on supervisor, co-author and reviewer feedback.

ACKNOWLEDGEMENTS

My doctoral journey has been enriched by people who shared it with me. I am sincerely grateful to my supervisors and co-authors, Kati Orru and Tor-Olav Nævestad. I greatly appreciated the opportunity to work with Kati throughout this process. Her attentiveness and patience, together with her ability to combine rigorous thinking with warmth, were truly inspiring. Though geographically distant, Tor-Olav offered steady guidance and support whenever I needed it, which I greatly valued.

I am grateful to Sten Hansson, who has accompanied the development of the cover text since reviewing its first chapter in a doctoral seminar, with insightful advice and encouragement. I would like to thank Veronika Kalmus for her careful reading and thorough feedback, and all my colleagues at the Institute of Social Studies who, over the years, have provided constructive comments on my manuscripts and the cover text.

This dissertation was made possible through the BuildERS project, which gave me the opportunity to study groups whose perspectives are too often missing from research. I am indebted to my colleagues and co-authors in the project for their collaboration and for making it possible to collect data from across Europe. Thank you, Ingeliis Siimsen, for being my companion in conducting the Estonian interviews.

I appreciate being a part of the Risk and Resilience Research Group at the University of Tartu, with the fruitful and motivating writing camps and beautiful hikes it has added to our joint academic efforts.

My heartfelt thanks go to the personnel and clients of care organisations who shared their time and experiences. Their voices are at the heart of this dissertation.

INTRODUCTION: THE AIM AND THE CONTEXT OF THE STUDY

Yesterday, upon the stair
I met a man who wasn't there

"Antigonish", Hughes Mearns, 1989

"Stay at home!" was the overarching message that resonated worldwide as the COVID-19 pandemic unfolded. For me, this phrase evokes memories of pitch-black, ice-cold early mornings at the open-air soup kitchen – standing under a streetlamp and struggling to document, with freezing hands, the pandemic experiences of people experiencing homelessness.

From March 2020, waves of novel information about a radically altered world, with emergency declarations, social distancing, daily tallies of infections and deaths, and widespread concern for elderly or ill loved ones, washed over societies. Hidden from plain view, marginalised groups encountered additional unprecedented challenges, with bans from public spaces, closed support centres, and suspended social services offering only a glimpse into the consequences of pandemic lockdowns.

In the literature and in my empirical research, marginalised groups were often described as "invisible". Marginality has been characterised as involuntary entrapment at the "edge of social, cultural, economic, ecological, geographical, or political systems", marked by deprived access to resources and services, restricted freedom of choice, and constrained opportunities to develop capabilities (Gatzweiler et al., 2011, p. 12). However, marginalisation also encompasses subjective feelings about being socially excluded: "It accounts for the person who realises that they are not a valued member of a community" (Varghese & Kumar, 2022, p. 28). Such forms of ostracism extend beyond economic deprivation, as not all marginalised groups necessarily lack material resources. Nevertheless, the majority of individuals grappling with socioeconomic disadvantages fall within the scope of marginalisation (Varghese & Kumar, 2022). As of the latest data, one in five people in the European Union is considered at risk of poverty or social exclusion. Among the 93.3 million individuals in this group, 72.2 million are defined as at risk of poverty[1], and 27.5 million as severely materially and socially deprived[2] (Eurostat, 2025). Every night at least 1 287 000 individuals are sleeping rough or in temporary shelters (FEANTSA, 2024).

This thesis focuses on people who use the services of soup-kitchens, day centres, over-night shelters, and long-term accommodation facilities. These various institutions providing social support are referred to here by the umbrella term

---

[1] The at-risk-of-poverty threshold is set at 60 % of the national median equivalised disposable income after social transfers.

[2] The severe material and social deprivation rate indicates an enforced lack of necessary and desirable items to lead an adequate life.

"care organisations". Affected by both poverty and social exclusion, a significant share of individuals served by such facilities occupy some of the most precarious positions in society, a condition Gatzweiler et al. (2011) describe as the "marginalised poor." Moreover, the invisibility of marginalised groups – as if they "were not there" – also places them at greater risk of being overlooked and disproportionately affected during disasters. Throughout the cover article, I refer to all service users of care organisations as their "clients" – term I most often heard from social workers and found useful as a concise way to describe this otherwise highly diverse group.

Inequality and disasters revolve in a vicious circle – vulnerabilities and unequal access to services and resources expose individuals to the dangers of disasters, while disaster impacts further entrench poverty and deepen social inequalities (Bui et al., 2014; Hallegatte et al., 2020; Neumayer & Plümper, 2007; UNDRR, 2023a). In order to mitigate the risk of people falling into deeper states of vulnerability, there has been an increasingly urgent call from international organisations, policy frameworks, and scientific community to include those more vulnerable in disaster risk reduction policies (Kosanic et al., 2022; Stough & Kang, 2015; UNFCCC, 2015; United Nations, 2015).

Studies have consistently shown that individuals already burdened by some form of vulnerability face disproportionally severe consequences during disasters, with these impacts compounding their disadvantages in a cumulative dynamic (Ha, 2016; Kosanic et al., 2022; Morris, 2020; Roth, 2018; Twigg & Lovell, 2018). These insights were further reinforced during the COVID-19 pandemic, which directed the spotlight to both vulnerable people and care organisations assisting them throughout this prolonged crisis (Allaria et al., 2021; Crawford, 2021; Okafor, 2021; Rambaree & Rambaree, 2021). The latter experienced surge in demand (Choolayil & Putran, 2021; The World Bank, 2020) and encountered challenges to provide services in line with imposed restrictions (Parkes et al., 2021).

The COVID-19 pandemic has additionally created new vulnerabilities arising from social isolation, the disruption of community bonds, barriers to employment, and food insecurity (Robinson et al., 2021). Socio-economic challenges were often complicated by discrimination and stigmatisation (Holt, 2020; Mukumbang, 2021). Amplifying these indirect impacts of the pandemic, marginalised groups were also disproportionally seriously threatened by the dangers of the virus itself (Leifheit et al., 2021; Niedzwiedz et al., 2020). Social inequalities affected not only the risk of becoming infected, but also the capacity to "purchase" safety by staying at home and adopting protective measures (Bavel et al., 2020; Blake, 2020). For individuals experiencing homelessness, the risks of the COVID-19 were also outweighed by the need to secure shelter, obtain food, and meet other fundamentals for self-preservation (Allaria et al., 2021).

The role of crisis communication during disasters such as pandemic is crucial, as the ramifications of information insufficiency and misinformation in such contexts are serious and lead to escalating harms for many people in precarious situations (Clark-Ginsberg & Petrun Sayers, 2020). Studies have shown that when crisis communication is tailored without considering the marginalised groups, it may be misunderstood, misinterpreted or not received at all (Andrulis et al., 2011; Morris, 2020; Williams & Webb, 2021), increasing individuals' vulnerability to information disorder (Hansson et al., 2020; Torpan et al., 2021) and hindering health protective behaviours (Chayinska et al., 2021; Rothmund et al., 2020).

By revealing how long-term disasters can give rise to a wide spectrum of vulnerabilities, the pandemic underscored the importance of informing, motivating, and supporting people in practicing protective behaviours. For this, understanding vulnerability and how it is shaped is essential. As stated by Raju et al. (2022, p. 1), "disasters occur when hazards meet vulnerability". Contemporary research has increasingly challenged the static view of vulnerability as an inherent trait of certain groups, recognising instead its roots in the interplay of multiple drivers (Kuran et al., 2020; Wisner, 2016). In this vein, vulnerability can be described as a dynamic condition of susceptibility to harm, shaped by situational barriers to accessing adequate resources and protection within disaster settings (Morsut et al., 2022b).

Decision makers' insufficient awareness of the varied needs and capabilities across society exacerbates underlying vulnerabilities, creates additional disadvantages, and impedes access to services and support during disasters (Rambaree & Rambaree, 2021; Zayas et al., 2017). However, empirical research has paid very little attention to the pathways of vulnerability among marginalised groups during disasters (Vickery, 2018). Uekusa (2019, p.1415) raises critical question for researchers of social resilience, vulnerability, and social capital: "What about invisible, vulnerable, and less resilient individuals who have a low level of social connectedness? Has anyone really reached out to them?" It is therefore important to delve more deeply into how the vulnerability of individuals and societies takes shape in the face of contemporary disasters. **The aim of my thesis is to advance understanding of how marginalised groups in Europe experienced the COVID-19 pandemic and to analyse the mechanisms that shaped their vulnerability in times of crisis.** More specifically the thesis looks into:

1. What were the experiences of marginalised groups and the organisations that supported them during the COVID-19 pandemic in Europe?
2. Which individual, social-structural and situational factors shaped these experiences of the marginalised during the COVID-19 pandemic?

In addition to the numerous interviews carried out by myself, the empirical material was gathered combining cross-sectional questionnaire survey among the clients of care organisations in eight European countries with expert-interviews, workshops and international colloquium with managers and staff of these organisations. Such a multifaceted design allowed us to complement firsthand data from socially disadvantaged individuals with qualitative perspectives drawn from the daily experiences of social workers who support them. The studies were conducted as a part of European Commission Horizon 2020 project "Building European Communities' Resilience and Social Capital" (BuildERS, 2019–2022).

Throughout the cover article, I use the pronoun “we” mainly to indicate joint work undertaken in collaboration with my two supervisors and, in some cases, colleagues in the BuildERS consortium. The literature engaged in this thesis draws on both the notions of crisis and disaster. The term crisis is used when referring to the COVID-19 pandemic, reflecting the framing commonly adopted in health-related contexts, and when discussing crisis communication. Vulnerability remains the key focus throughout the thesis, which is why I primarily adopt the terminology of disaster studies, using concepts such as disaster management and disaster risk reduction. While the two terms are often used interchangeably in academic research, disaster studies typically foreground the vulnerability of social systems, whereas the term crisis is associated with decision-making under uncertainty and urgency – that is, with issues of governance (Wolbers et al., 2021).

The cover article is structured as follows. The theoretical section centres around the concept of social vulnerability. The analysis specifically examines individual’s own capacities as well as functionality and accessibility of societal support networks and public support structures that intersect during disasters, shaping the vulnerability of individuals. Communication-related and situational drivers amplifying vulnerability are highlighted throughout. I delve more explicitly into the methodological approaches and the analysis in the Method chapter of the thesis. Then research findings are introduced, organised in accordance with research questions and synthesising the results from publications. The cover article continues with the discussion chapter, contextualising the findings within existing research. I conclude providing answers to the research questions and recommendations for practice, followed by a final chapter summarising the research in Estonian.

The thesis offers novel insights to the discussion on the preparedness and coping capacities of the most vulnerable and their inclusion in disaster risk reduction. Considering the needs of vulnerable people in disaster management is not only a moral obligation, but also serves a practical purpose, as it can protect systems and services from being overwhelmed during a disaster when they need to be reorganised to suit diverse populations (Morris, 2020). Although this thesis focuses on marginalised groups, understanding the mechanisms hindering the resilience of those who are disadvantaged prior to a disaster enables to build social and institutional structures that act as safety nets to anyone that becomes vulnerable when disasters hit.

1. THEORETICAL FRAMEWORK

1.1. Concept of social vulnerability

Vulnerability, unveiling the social dimension of the disasters, has become one of the key concepts in crisis and disaster research, concurrently consistently surfacing in political discourse and media channels whenever our societies confront disruption (Morsut et al., 2022b). Frequently, the social side of vulnerability has been regarded as an inherent, fixed trait. Within this narrative of "vulnerable groups", vulnerability is attributed to certain societal groups on the basis of their distinct characteristics, such as age or socio-economic background, not only in particular events, but more generally, thus rendering vulnerability static (Orru et al., 2022a). But closer examination of the determinants of vulnerability affecting specific group reveals that describing them as vulnerable merely offers a "snapshot" of a given situation, as individual vulnerability varies based on the multitude of oppressive impacts (Kuran et al., 2020). Indeed, vulnerability encompasses "a combination of factors that determine the degree to which someone's life, livelihood, property, and other assets are put at risk by a discrete and identifiable event (or series or "cascade" of such events) in nature and in society" (Wisner et al., 2004, p. 11). In recent years, understanding of vulnerability has moved away from static conceptualisation towards a dynamic perspective (de Ruiter & van Loon, 2022), indicating that no one is exempt from vulnerability. It can arise through the interaction of interdependent and intersectional factors spanning human agency and individual capacities, technological and political structures, and societal support systems (Kuran et al., 2020; Orru et al., 2022a). Thus, vulnerability can be defined as "entities' (individuals, groups, society) dynamic characteristic of being susceptible to harm or loss, which manifests as situational inability to access adequate resources and means of protection to anticipate, cope with, recover and learn from the impact of natural or man-made crises" (Morsut, et al., 2022b, p. 141).

One key manifestation of vulnerability is associated with communication failures. Hansson et al. (2020) recommend systematically mapping and comprehending these communication-related factors driving vulnerability, which can occur due to poor access to, misunderstanding of, or impeded ability to react to crisis information. During a pandemic, vulnerability may be aggravated due to six ways of exposure to harmful information: a) discouraging implementation of official crisis measures; b) advocating the adoption of false treatments against the virus; c) distorting the pathways of viral transmission; d) trivialising the pandemic risks; e) deceiving people into buying fake protections or into disclosing their confidential information; f) harassment and hate speech directed against individuals labelled as virus spreaders (Hansson et al., 2021).

In recognising that vulnerability is dynamic and intersectional, it nevertheless weighs disproportionately on particular population groups, such as marginalised communities, whose pre-existing disadvantages are compounded when disasters unfold. For example, the COVID-19 pandemic severely worsened the situation of migrants, underscoring the need to confront xenophobia and raising concerns over the human dignity of socially excluded groups in the alleged modern welfare state during disasters (Choolayil & Putran, 2021; OHCHR, 2020). Among low-income populations and in areas with high levels of deprivation, the pandemic was marked by higher mortality as well as increased risks of infection and hospitalisation (Baena-Díez et al., 2020; Mena et al., 2021; Niedzwiedz et al., 2020; Riou et al., 2021). The existing literature further suggests that large-scale and sudden disruptions place significant strain on core organisational elements, including capacities and resources, objectives, established routines, and the structures that sustain their operations under normal circumstances (Boin & 'T Hart, 2007). Consequently, many individuals in highly disadvantaged and marginalised situation lost their primary support from care organisations, as the growing demand for services was accompanied by shrinking budgets and (human) resources among care providers (Amadasun, 2020; Banks et al., 2020).

Official information, such as instructions and regulations for disaster preparedness and response, is communicated to vulnerable populations by (local) authorities and disaster management institutions. For disadvantaged individuals (e.g., those with impairments or lacking adequate resources, infrastructure, or support), such guidance is only beneficial if it can be accessed (e.g., read or visually perceived) and understood. Barriers to receiving and/or comprehending these instructions may evoke new vulnerabilities and aggravate existing ones, for instance by provoking panic, hindering evacuation, or obstructing the adaptation of protective behaviours (Rambaree & Rambaree, 2021; Zayas et al., 2017; Williams & Webb, 2021).

Of particular importance among other factors, receiving and understanding crisis information, along with the broader communication environment during disasters, shapes individuals' awareness of risks posed by the situation. As Siegrist et al. (2021, p. 797) state, "Health risk perception is the strongest predictor of people's acceptance of the implemented measures and of their behaviour". Risk perception played a key role in the acceptance of the measures introduced by governments to control COVID-19 (Entradas, 2021; He et al., 2021; Siegrist et al., 2021; Wang et al., 2021). The reverse also held, as distorted perceptions of risk and conspiracy beliefs weakened health-protective behaviour by downplaying the pandemic's severity and trivialising its threat (Chayinska et al., 2021; Rothmund et al., 2020).

Coping with the multiple concurring risks from COVID-19 pandemic, including the information disorder, posed diverse challenges to the marginalised, including the disabled people, children, and individuals experiencing homelessness. Within these vulnerable segments of society, a range of coping mechanisms and levels are represented, shaped by various factors of vulnerability and their intersections. Examining these factors and their impact on the coping of marginalised groups during disasters is the focus of this thesis.

Social vulnerability framework. Aiming to capture vulnerability in disaster contexts more holistically, Orru et al., (2022a) proposed a framework, categorising the factors of social vulnerability across two dimensions:

- are these primarily stemming from human agency and capacities, or the functionality of the surrounding technological and political structures, and
- are these a function of the availability, accessibility, and functionality of social (material, psychosocial and informational) support through private relations and/or through societal provision (institutional care).

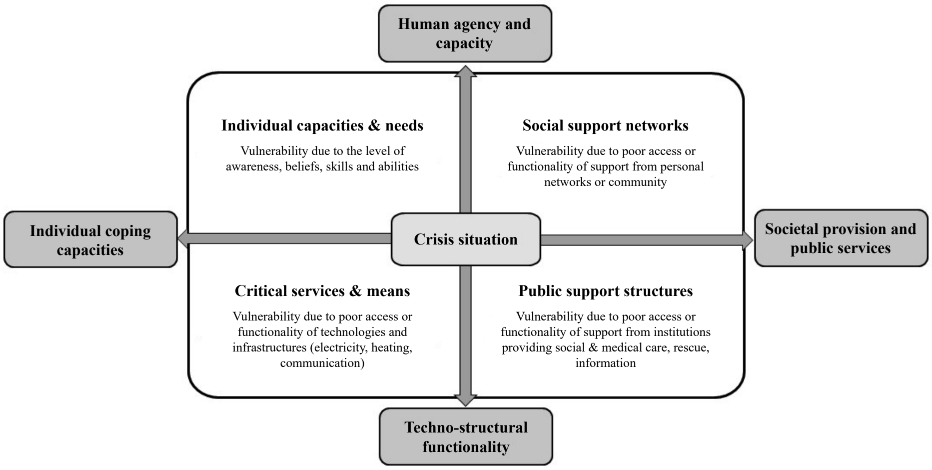

Figure 1. Conceptual dimensions of "social vulnerability" in disaster management (Orru et al., 2022b)

In specific disaster situations, these two dimensions intersect, creating four conceptual spectrums of vulnerability factors: i) "Individual capacities and needs", ii) "Societal support networks", iii) "Critical services and means", iv) "Public support structures". Emerging impacts are additionally amplified or attenuated by the situation characteristics, such as individual's proximity to a hazardous area (Orru et al., 2022a). The unique intersections between these factors result in synergistic effects that may amplify or mitigate one another. For example, the vulnerability factors stemming from the "Individual capacities and needs" spectrum may be both exacerbated or compensated by factors originating from the "Public support structure" (Orru et al., 2022b).

Across these four spectrums of vulnerability factors, communication emerges as a crucial and common element that can either exacerbate or mitigate people's vulnerability to disasters. Individuals vulnerability due to poor access, understanding or limited possibilities to react to crisis information is influenced by (a combination of) three types of factors: i) individual (e.g., poor eyesight or hearing; lack of resources or skills to use information sources; limited literacy, mental capacity, or language skills; lack of resources or power to react), ii) social-structural (e.g., poor communication structure, information tailored inappropriately for diverse audiences, customs of information seeking, distrust towards source of disaster information), and iii) situational factors (e.g., destroyed communication infrastructure, spread of misinformation) (Hansson et al., 2020), that will be elaborated further in below sections.

1.2. Individual factors of vulnerability

Individual factors of vulnerability are reflected in the "Individual capacities and needs" quadrant of the social vulnerability framework, and include physical, emotional, and mental condition, abilities and skills of individuals, their risk awareness and attitudes, disaster management skills, implemented preparedness measures and other characteristics stemming from person's unique combination of capabilities and circumstances (Orru et al., 2022b). Regarding communication-related vulnerability, these factors encompass individual's abilities to follow crisis information (hearing and eyesight conditions, literacy, language skills, access and habits to use devices and channels, understanding of crisis messages and resources to act upon them) (Hansson et al., 2020). In short, the highlight in this spectrum unveiling the drivers of becoming vulnerable is on personal capabilities, skills, and resources, the mechanisms which are explained in detail in the COVID-19 pandemic context below.

Socioeconomic status

During the pandemic, individuals with socioeconomic disadvantages were in higher risk of getting infected or dying from COVID-19 (Baena-Díez et al., 2020; Leifheit et al., 2021; Mena et al., 2021; Niedzwiedz et al., 2020; Riou et al., 2021). Lower income, lower education, and working as an employee were related to continuing to work at the workplace and continuing heightened exposure to the virus, since these individuals do not have the opportunity to work from home (Gama et al., 2021). Material impacts were particularly severe for members of marginalised or homeless communities engaged in informal employment or on temporary contracts, but were milder among recipients of state pensions or other stable form of support (Siimsen et al., 2023). Women faced more socioeconomic impacts (Erman et al., 2021; Fisher & Ryan, 2021), and tended to have more negative mental health outcomes (Ausín et al., 2021; Fuller-Rowell et al., 2021; Olson et al., 2023). However, an analysis of the gender gap covering 20-year period found that women's shorter life expectancy in disasters stems from prior patterns of discrimination that increase their vulnerability, as this effect disappears when women attain higher socioeconomic status (Neumayer & Plümper, 2007).

Health

Poor physical health has been found to exacerbate individuals' vulnerability to disasters not only directly. Review of academic research by Kosanic et al. (2022) revealed that disabled populations were disproportionately affected by disasters.

Individuals with disabilities also report very low levels of preparedness and difficulties to evacuate when receiving the warning. More than half of them are not aware or has no access to the crisis information in the community (UNDRR, 2023b).

Migrant status

Immigrants, asylum seekers, temporary workers and individuals residing in country without documentation became particularly vulnerable during the COVID-19 pandemic. Experiencing higher incidents of poverty, overcrowded housing conditions and types of job, where physical distancing was difficult, resulted in much higher, at least doubled risk of COVID-19 infection (OECD, 2020b). In addition, they suffered high levels of psychological stress and anxiety (Acharya et al., 2022; Habtamu et al., 2021). The well-being of immigrants was often affected by social exclusion, denial of services, and, in worse cases, stigmatisation as virus spreaders and racism (Arora et al., 2022; Hennebry & H, 2020; Mendez et al., 2020; Mukumbang, 2021; Vickery, 2018).

The way individual factors impact people may also vary. For example, Griego et al (2020) describe how, in the aftermath of a hurricane, aid was more often directed to households with children, or lower incomes compared to the general public, whereas households that included a member with a disability were less likely to receive support from NGOs. This inequality may have arisen from inadequate volunteer training, as well as insufficient digital records, such as contact or location data on disabled populations, accessible to aid providers (Griego et al., 2020). It is important to bear in mind that there is much diversity among the marginalised, including those often addressed as one group. For example, the homelessness is experienced by population that is in accord with general demographics, including disabled people, children, and families (Morris, 2020).

Communication-related vulnerability can be driven by (a combination of) individual factors arising from a person's physical, mental, emotional, or behavioural conditions, which challenge their ability to send, receive, understand, or react to crisis information (Hansson et al., 2020). Factors such as limited language skills, lack of knowledge (e.g., how to interpret of warning signals), limited resources for purchasing communication devices, lack of skills or habit to use information sources also often impact marginalised groups, for example migrants (Arora et al., 2022).

In regard to the coping of marginalised groups, an important manifestation of vulnerability driven by how individuals consume and interpret information concerned their perception of COVID-19 related risks. People in higher income brackets and with greater economic activity reported higher risk perception (Giordani et al., 2021; He et al., 2021). By contrast, individuals from lower socioeconomic and educational backgrounds, as well as racial and ethnic minorities, tended to hold stronger conspiracy beliefs about the pandemic (Bavel et al., 2020; Romer & Jamieson, 2020). For people experiencing homelessness, COVID-19 was recognised as a risk, yet often outweighed by the more pressing demands for survival, such as securing housing, food, and medical care (Allaria et al., 2021).

Evidence from existing research also indicates, that women perceive more risk from COVID-19 than men (Dryhurst et al., 2020; He et al., 2021; Siegrist et al., 2021; Wang et al., 2021). Consistent with the elevated clinical risk among older adults, several studies have found a positive association between age and COVID-19 risk perception (Brown et al., 2021; Entradas, 2021; Giordani et al., 2021; He et al., 2021; Latkin et al., 2021; Wang et al., 2021). However, some authors (Küppers & Reiser, 2021; Siegrist et al., 2021) reported no significant age-related effect. Poorer personal health has likewise been shown to increase the perception of COVID-19 risk (Latkin et al., 2021; Rothmund et al., 2020; Siegrist et al., 2021), a finding reinforced by evidence that health anxiety is linked to fear of contracting COVID-19 (e.g., (Mertens et al., 2020).

Furthermore, the situational factor of virus exposure played a role, as levels of risk perception aligned with regional COVID-19 infection rates. Anxiety regarding the disease was more pronounced in countries with higher infection rates (Shahin & Hussien, 2020; Shiina et al., 2021). Personal experiences, whether direct or through family or acquaintances, also served as predictors of elevated risk perception (Dryhurst et al., 2020; Giordani et al., 2021; Shiina et al., 2021). As during other disasters, individual drivers of communication-related vulnerability stemmed from the habits of consuming information. Virus-related risk perception may be shaped not only by the sources of information, but by patterns of exposure and information-seeking behaviour as well. According to Wang et al. (2021), risk exaggerators sought pandemic information from variety of sources, whereas risk deniers often ignored it and intentionally refrained from seeking it. Reliance on television as an information source has shown a clear association with perceiving pandemic risks as more serious (Entradas, 2021; He et al., 2021; Romer & Jamieson, 2020; Rothmund et al., 2020). The above implies that marginalised groups were affected by a variety of individual factors influencing their coping during the pandemic, including comprehending the virus risk. However, acknowledging the intersectional nature of vulnerability, it is crucial to examine how these factors interacted with societal support networks and public support structures.

1.3. Societal support networks

Quadrant of "Societal support networks" in the social vulnerability framework reflects vulnerability stemming from poor access or functionality of support from personal networks or community (from outside state institutions) and from the ways and sources of communicating and interpreting crisis information within the community (Orru et al., 2022a). In general, this array of factors relates to the ties and support networks that an individual has within the informal sphere of society, including voluntary or non-profit organisations. One of the main areas of existing research regarding this spectrum concerns the role of social capital in disasters. Gradually gaining prominence is the role of non-governmental care organisations supporting and providing services to individuals in precarious situation, along their staff of social workers and volunteers, and associations of disabled individuals. From a communicational standpoint, the issue of distrust in authorities and official information is increasingly recognised as an important influencer.

Social capital

Social capital has been differentiated into three dimensions: bonding (referring to trusting, strong ties within close relationships, such as with friends or family), bridging (indicating connections between diverse groups, such as within a neighbourhood), and linking (concerning trust-based relationships across institutionalised and other formal power gradients) (Szreter & Woolcock, 2004). Disaster research has operationalised social capital in two ways.

First, social capital can be measured at the micro level, where it relates to individual's capacity to cope in different situations and draw upon available resources ("individual social capital"). Second, at the collective (macro) level, social capital goes beyond the mere aggregation of individual-level capital and reflects civic qualities of societies, communities, and groups, such as the overall level of trust among members or towards authorities ("collective social capital") (Morsut et al., 2022a). Disasters, especially the ones that unfold fast and unexpectedly, impact individual social capital in many ways: personal social networks may become inaccessible, while bridging networks gain prominence for assistance, that may not be provided by linking social capital (Morsut et al., 2022a). Thus, the situational conceptualisation of social capital is necessary to not only examine the availability of bonding, bridging and linking social capital to individuals, but also its accessibility and activatability in specific situations (Schobert et al., 2023b). Higher levels of social capital have been shown to protect individuals' mental health. Not having material and emotional support to draw on from social networks has been associated with elevated risk of psychological distress (Smiley et al., 2022; Tsuchiya et al., 2017). Lower levels of social capital and residing on the streets are also tied to reduced engagement in self-imposed social isolation (Nævestad et al., 2022). The establishment of bridging and bonding connections between the homeless services and family members has served as an effective mechanism for helping vulnerable individuals during times of disasters (Parry et al., 2021). From the negative side, social capital may reduce risk perception and demotivate to prepare for disasters as the expectation of social support downplay the risk (Babcicky & Seebauer, 2017).

Social capital can play a significant role in how risk-related beliefs affect individuals (Morsut et al., 2022a). Research on the impact of social capital in shaping risk perception has yielded mixed findings. Lowered concerns about COVID-19 have been connected to reduced general trust in both other people (Siegrist et al., 2021) as well as politicians and government (Dryhurst et al., 2020; Entradas, 2021). At the same time, compliance with pandemic regulations was strongly supported by trust in government actors (Bargain & Aminjonov, 2020; Bavel et al., 2020; Blair et al., 2017). Believing that the government provided honest information about the pandemic indicated increased health vigilance (Siegrist et al., 2021). Higher trust in government (linking social capital) was often negatively associated with COVID-19 test positivity rates of studied US counties (Fraser et al., 2022). Robust linking social capital is also integral for credibility in disaster governance, while the creation of social networks that strengthen community capacity relies on bridging and bonding ties (Tiller et al., 2022). A person may be exposed to false or contradicting information in his immediate circle or belong to a group that usually consumes information via certain channels and sources and distrusts official sources of information (Hansson et al., 2020). During the pandemic, individuals with low trust in public media and news were shown to be particularly susceptible to false information (Hansson et al., 2020, 2021; Torpan et al., 2021). In addition, trusting and engaging with social media for pandemic-related information was associated with lower perceived risk of COVID-19 (Entradas, 2021; He et al., 2021; Rothmund et al., 2020). The role of social media in spreading misinformation and conspiracy beliefs about the pandemic is well documented (e.g., Allington et al., 2021; Hansson et al., 2021).

Organisations providing social care services

Organisations such as soup kitchens, day centres, night shelters and long-term accommodation facilities provide daily assistance to individuals in vulnerable situations. Many of these care organisations are non-profit entities that operate on a voluntary basis and are financed by charity. They can have different levels of financial support from and connections with (local) government institutions. Staff of these organisations (commonly referred to as "social workers" in this cover article) can also be both voluntary and paid. Given the significance of these care organisations in the everyday coping of marginalised groups, their own resilience and ability to continue their services has crucial implications on the vulnerability of their clients. COVID-19 pandemic challenged care organisations with significant, even doubled increase in the need for their services, (Choolayil & Putran, 2021; The World Bank, 2020) while they struggled to maintain them altogether when the restrictions were imposed (Parkes et al., 2021). Suspension of support and closing the facilities of these organisations leave their clients in a very difficult situation. During disasters, coping of care organisations is affected by various actors. To keep up the activities, withstand the surge in demand and reorganise services in accordance with disaster measures, it is vital to have sufficient resources (Okorley & Nkrumah, 2012). Appropriate structure i.e., having defined roles, responsibilities, and authority as well as procedures and regulations enable day-to-day operation of the organisation. Not less important are common "ways of working" such as shared ideas, values, codes of conduct, competencies, and established expectations that form organisation's culture (Schein, 2004). Key words and phrases referring to social relations and networks, i.e., informal structure and the social capital of the organisation, are "trust, friendship, access to knowledge and experiences, informal power, alliances, competition, and conflicts" (Rolstadås et al., 2014, p. 644), but personnel expertise and sufficiency constitute primary factors here. In crises such as the pandemic, isolation measures often lead to a reduced active workforce driven by shrinking economic resources (Nisanci et al., 2020), fear of contagion, and burnout (Barbu et al., 2021; H. S. Sim & How, 2020). Previous research indicates, however, that most important aspects are leadership and communication (i.e., management strategies, work routines, information flows, internal communication, cooperation, and coordination) (Okorley & Nkrumah, 2012) with a central role of top managers (Deverell et al., 2019; Schein, 2004; Stern, 2009).

To counteract these impeding factors emerging during disasters, collaboration has been underscored as a pivotal component of organisational response. Good relationships nurtured before the disaster enhance organisation's ability to cope during the event (Alpaslan et al., 2009). For NGOs to perform successfully, previous research identifies sufficient funding as decisive (Okorley & Nkrumah, 2012). Impending disasters may lead to financing difficulties, such as halted donations due to economic hardship (Nisanci et al., 2020). However, alongside financial security, public recognition of both individuals in vulnerable situations and the necessity of care organisations fosters their disaster response efforts (Oostlander et al., 2020).

1.4. Public support structures

The social vulnerability framework aggregates factors that arise from the intersection of the dimensions "Technostructural functionality" of a society and "Societal provision and public services" in the fourth quadrant, denoted as "Public support structures" (Orru et al., 2022a). This spectrum covers the availability, accessibility, and quality of psychosocial and medical care, rescue, information, and other institutional services, and involves ensuring the functionality of core institutions such as hospitals, care homes, police, national broadcasting, disaster management authorities etc. This dimension also encompasses aspects related to governance, including tailoring services that consider the various needs of individuals and establishing appropriate crisis measures. Governance issues are seldom captured as core dimensions in understanding vulnerability, yet they exert critical influence on individuals' coping under hazardous conditions (Birkmann et al., 2013). Associated communication-related vulnerabilities arise from shortcomings in maintaining continuous functionality of communicational infrastructure and/or in dissemination of official information, that is provided in an accessible and understandable manner for all individuals affected by a disaster (Hansson et al., 2020).

Inclusive disaster management

Depending on the scale and scope of a disaster, its management involves decision-making at various levels of governance – leading rescue-activities at the scene, coordinating the municipal (or regional) level, and, when necessary, governments or strategical level of related authorities are in command. Institutions responsible for rescue operations and disaster policymaking rely on knowledge to support well-informed decision-making. Promoting such awareness is best achieved by drawing on the expertise of individuals in vulnerable situations and their representatives or care organisations, who understand the needs and capacities of the diverse community groups (Morris, 2020; Pertiwi et al., 2019; Twigg & Lovell, 2018; WCDRR, 2015).

The necessity of accounting for the needs of the individuals in a disadvantaged life situation, such as those affected by disabilities, addictions, migrant status, among others, is underscored by the disproportional harm they bear, whether stemming from individual factors or from shortcomings in public support structures (Ha, 2016; Kosanic et al., 2022; Morris, 2020; Roth, 2018; Twigg & Lovell, 2018). Moreover, poor inclusion may lead to insufficient awareness among decision makers of societal needs, capabilities and perspectives, which has been shown to exacerbate previously existing vulnerabilities, create new disadvantages, fuel stigmatisation, and hinder access to services and support during disasters (Andrulis et al., 2011; Rambaree & Rambaree, 2021; Roth, 2018; Zayas et al., 2017). However, existing studies and international reports point to major deficiencies in how accessibility is implemented in practice, and to the persistent exclusion of vulnerable populations from disaster risk reduction processes (Jang & Ha, 2021; Kosanic et al., 2022; Morris, 2020; UNDRR, 2023b).

Ongoing framing of marginalised individuals as "vulnerable group" curtails their agency and limits the ability of their representative organisations to contribute to disaster risk planning and programmes (Pertiwi et al., 2020). Concomitantly, there is a general lack of recognition of social workers' role in coping with disasters (Dominelli, 2015; T. Sim et al., 2022). Paternalistic perceptions of the presumed vulnerability and incapacity of certain groups, casting them as liabilities, "objects of charity" or "special", form a barrier to their inclusion in disaster management (Abbott & Porter, 2013; Craig et al., 2019; Roth, 2018). Stereotypical notions about disabilities and gender that still prevail have disempowering and further marginalising effect (Pertiwi et al., 2019; Zayas et al., 2017). They also induce lack of feeling safe, which has been identified as a characteristic of vulnerability by the disaster management practitioners. For example, they have described how the elderly people are sometimes afraid to self-identify out of concern that criminals will attempt to take advantage of their vulnerability (Williams & Webb, 2021).

To mitigate the influence of the abovementioned, acknowledging people with disabilities as experts on their needs and giving them a presence in the discussions over disaster preparedness is a sure way to contribute to changing local communities' perceptions about disability and making disaster planning inclusive (Abbott & Porter, 2013; Craig et al., 2019; Roth, 2018; Zayas et al., 2017). And vice versa, engaging minorities in all aspects of preparedness activities strengthens their trust, knowledge and also compliance with policies and actions (Andrulis et al., 2011).

Care organisations and social workers as stakeholders in disaster management

The stigma fuelling the social isolation of marginalised groups and blocking their access to care and support, has called for social workers to step up to create awareness and combat misperceptions about the pandemic, stigmatisation, and fear (Okafor, 2021). In particular, the advocacy role of care organisations has emerged during the pandemic (Okafor, 2021). To date, (inter)national and local authorities, together with disaster response institutions (the latter often referred to as the “golden trio” of rescue, police, and medical care) have largely been recognised as key stakeholders in disaster management. It has been argued that social services, alongside the health care system, could contribute substantially to disaster resilience efforts (Crawford, 2021; Hay & Pascoe, 2021; Rapeli et al., 2018). Social workers and care organisations demonstrate a strong sense of mission and deep commitment to supporting their clients (Parkes et al., 2021; Shi et al., 2020). Their expertise in human behaviour, social systems, and recourse availability provides the foundation for voicing the needs of those vulnerable and marginalised to all levels of disaster governance, to help safeguard their social protection (Abbott & Porter, 2013; Crawford, 2021; Okafor, 2021).

The conventional understanding of social work’s role in disaster management has centred on its contribution during response and recovery, particularly through psychological care and the deployment of social workers’ knowledge, values, and practice skills following disasters (Hay & Pascoe, 2021; Nikku, 2015; T. Sim et al., 2022). To enhance the inclusion of vulnerable and marginalised groups into disaster management, the emphasis should now be on the planning and preparedness phase (Abbott & Porter, 2013; Pertiwi et al., 2019; Sundarajaj, 2021). Social workers also need relevant education and training, such as participation in emergency management exercises (Rapeli et al., 2018).

Inclusive governance deficiencies and communication-related vulnerability

Deficiencies may arise when communication is designed without considering people who face barriers such as visual or hearing impairments, limited proficiency in the (local) language, cognitive or mental health difficulties, insufficient digital competence or cultural differences. This vital information may therefore be misunderstood, misinterpreted, or not received at all (Andrulis et al., 2011; Morris, 2020; Stough & Kang, 2015; Williams & Webb, 2021). Failure to reach vulnerable people with the official information further intensifies their difficulties.

Research pointing out significant shortcomings in communication between different actors of disaster management, including representatives of vulnerable groups, the authorities, the crisis managers, local governments, and NGOs provides compelling evidence (e.g., (Andrulis et al., 2011; Park & Yoon, 2022; Rambaree & Rambaree, 2021). In many cases, it has been described as lacking at all and inhibiting response to disasters (Rambaree & Rambaree, 2021; Zayas et al., 2017; Williams & Webb, 2021).

When confronted with uncertainty, complexity, and ambiguity, effective crisis communication rests on meaningful interaction among actors from diverse backgrounds (Florin & Linkov, 2016). Achieving this may require intermediaries serving as a “link between two or more cultures or social systems” (Bochner, 1981, p. 3). Mediating is understood as a “purposeful intervention into the act of communication” (Liddicoat, 2016, p. 348) and spans a wide range of activities and roles, combining translation, interpretation, and culturally responsive approaches, with the goal of supporting individuals from diverse backgrounds in accessing information, interacting and fostering shared understanding (Archibald & Garzone, 2014; Ciribuco & and Federici, 2024; Federici, 2022a). Furthermore, Blumczynski and Wilson (2022) identify agency, cooperation, respect, and trust as prerequisites for meaningful communication.

Previous research has emphasised the critical contribution of social workers in conveying official crisis information to people they support. Their intermediary role has been characterised as not limited to distribution, but also encompassing educating, dispelling misconceptions about the situation, and making sense of it, thereby promoting the adaption of appropriate behaviours (Amadasun, 2020; Crawford, 2021; Morris, 2020). Amid the COVID-19 pandemic, social workers took on an essential function by sharing reliable information to people who might otherwise have lacked awareness of safety measures, and by helping to curb fear and rumours (Crawford, 2021; Okafor, 2021). Morris (2020) suggests utilising not just trained social service provides, but also to use points of their service access such as soup kitchens to provide information to marginalised individuals like those experiencing homelessness. This could help avoiding authoritarian approach to the people, which could lead to further alienation (Morris, 2020). The need to educate and train social services in disaster management has been stressed as a foundation for enabling them to represent their clients' needs and to mediate crisis communication (Hay & Pascoe, 2021; Rapeli et al., 2018).

Stemming from this rich existing literature, in this dissertation, I examine social vulnerability from the perspectives of marginalised groups and of social workers in care organisations that provide them with essential services – social actors whose experiences are rarely captured in empirical research. As a novel approach, this research goes beyond individual characteristics that shaped the pandemic experiences of these populations by applying the social vulnerability framework (Orru et al., 2022a) to include the dimensions of social networks and public support and achieve a more comprehensive understanding of the mechanisms of their vulnerability.

2. METHODOLOGICAL CONSIDERATIONS

Disaster research has been described as an "interdisciplinary meeting ground, not a field per se" (Chmutina et al., 2024, p. 5), driven by the catalytic force of disasters, which "dramatically reveal the deep interconnections between a myriad of systems and environments" (Peek & Guikema, 2021, p. 1050). In line with studies that seek to unravel disaster as a social process – absorbing and integrating multiple methods, casework, and spanning spatial and temporal dimensions (Chmutina et al., 2024) – this thesis adopts an interdisciplinary approach, drawing on insights from systems theory (**Study I, Study III**) and behavioural psychology (**Study II**). Methodologically, it employs a mixed-methods design, integrating qualitative interviews, workshops, and colloquium with a cross-sectional survey to capture the complexity of disaster vulnerability. Ontologically, I align with the notion that crises can be both objective realities and socially constructed phenomena, shaped by their framing in public discourse – what Beck (2009) refers to as "manufactured uncertainty". As he argued a decade earlier: "I can be both a realist and constructivist, using realism and constructivism as far as those metanarratives are useful for the purpose of understanding the complex and ambivalent "nature" of risk in the world risk society we live in" (Beck, 1999, p. 134). While interdisciplinarity is essential to advancing disaster studies, Donovan et al. (2022) point out the added value of what Collins and Evans (2007) term "interactional expertise" – researcher's own ability to engage across multiple disciplines. Such competence fosters dialogue between fields and helps bridge disciplinary divides in disaster research, a quality I hope to have contributed through my own background in disaster management and internal security studies. By integrating perspectives from various fields that examine marginalised groups and disasters, my thesis draws on insights from risk and resilience research, sociology, psychology, governance, and, in particular, social vulnerability studies.

Conducted under rigorous ethical oversight, this research followed a multifaceted iterative approach, combining qualitative (**Study I, Study II, Study III**) and quantitative (**Study II**) methods in a structured, stepwise manner. Striving for a comprehensive understanding of how marginalised groups coped in the pandemic, the selected methodology combined firsthand reflections from individuals facing social disadvantages with the perspectives of social workers who attend to them daily. To add context, media sources and official institutional websites were reviewed to understand each country's pandemic regulations. The data collection for this dissertation was carried out as part of the European Commission Horizon 2020 project „Building European Communities' Resilience and Social Capital" (BuildERS), which explored the critical techno-social and cultural factors that impede the resilience of societies during disasters. Led by my supervisors, the three of us formed a dedicated team within the BuildERS project that focused on the coping of marginalised groups and the factors shaping social vulnerability during disasters. Twelve European countries were involved in gathering the data –

Belgium, Czech Republic, Estonia, Finland, Germany, Hungary, Italy, Lithuania, the Netherlands, Norway, Portugal, and Spain. A structured overview of the samples and main methods used in the studies is presented in Table 1. In the following chapter, I begin by outlining the ethical and methodological considerations of this research, including my own reflections as a researcher, to introduce the challenges of studying individuals in vulnerable situations and to establish the context for the subsequent overview of data collection and analysis. I then proceed to describe the data collection and analysis in more detail, concluding the chapter with a discussion of the study's limitations.

Table 1. Summary of samples, data collection, and analysis methods across studies

Study	Period of research	Data collection method	Sample	Countries covered	Data analysis
Study I	March–June 2020	Document analysis	38 policy documents, 37 media articles, 29 other types of documents	Czech Republic, Estonia, Finland, Germany, Hungary, Italy, Lithuania, The Netherlands, Norway, Portugal	Qualitative thematic content analysis (Nowell et al., 2017)
Studies I–III	May–July 2020 plus additional interviews in Portugal April, 2021	Semi-structured expert interviews	32 representatives of soup kitchens, night shelters, day centres, residential facilities for addiction rehabilitation, resocialisation centres, day centres for homeless, migrants or people with coping difficulties	Czech Republic, Estonia, Finland, Germany, Hungary, Italy, Lithuania, The Netherlands, Norway, Portugal	Qualitative thematic content analysis (Nowell et al., 2017)
Study II	November 2020–April 2021	Cross-sectional questionnaire survey	273 clients of care organisations	Belgium, Czech Republic, Estonia, Hungary, The Netherlands, Norway, Portugal, Spain	Quantitative analysis: one-way Anova tests; Chi square tests; hierarchical, linear regression analysis
Studies I–III	June–September, 2021	5 national online workshops	52 representatives of soup kitchens, addiction rehabilitation, day centre, night shelter, resocialisation centres, centre for migrants	Belgium, Hungary, Estonia, Norway	Qualitative thematic content analysis (Nowell et al., 2017)

Study	Period of research	Data collection method	Sample	Countries covered	Data analysis
Study III	January, 2022	International online colloquium with 6 language-based break-out rooms	42 representatives of soup kitchens, charity organisations, migrants' centres, associations of individuals with impairments, care home, home care provider, services for the elderly, psychological first aid centre, support for victims of violence, social first emergency aid 24h	Language-based groups in English, Estonian, Finnish, German, Italian, Norwegian	Qualitative thematic content analysis (Nowell et al., 2017)

2.1. Studying individuals in vulnerable situations. Ethical and methodological considerations and reflections

This thesis and the research navigate the sensitive terrain of addressing individuals in vulnerable situations. With this in mind, two key aspects required careful consideration when designing the empirical studies: ensuring broad and equitable representation of marginalised groups and preventing any additional harm or exacerbated vulnerabilities. The following sections explore the ethical dimensions of the research, integrating methodological considerations through this lens. Lastly, I reflect on my personal experiences as a researcher.

Although ethics assessments have become a general standard, the specifics of disaster research – such as engagement with vulnerability, marginalisation, and limited societal coping capacities – further underscore scientists' moral obligation for self-reflection (Schobert et al., 2023a). Existing literature has been criticised for instances of adopting positions of saviourism and paternalism (Chmutina et al., 2025), framing vulnerability as a "subject of pity or fear" (von Meding & Chmutina, 2023) and emphasising the "remarkable resilience" of some populations in ways that divert focus from issues of social inequality and vulnerability (Uekusa et al., 2025). This doctoral thesis benefited from close collaboration with the BuildERS project, drawing on the up-to-date ethical oversight provided by its project partner, the International Centre for Ethics in Sciences and Humanities at the University of Tübingen. Ethical awareness remained an integral part of my research process, from the design phase to the refinement of publication language, serving as an additional layer of analysis (for further details on the ethical framework developed for BuildERS, see (Schobert et al., 2023a). The studies were also approved by The Research Ethics Committee of the University of Tartu (license number 295/T-23) and similar institutions or research ethics committees of all other countries participating in the project. While the ethical evaluation also included qualitative data collection (**Studies I–III**), its primary focus was on conducting the survey among clients of care organisations (**Study II**), guided by five main ethical principles: respect for justice, autonomy, non-maleficence, beneficence, and privacy/data protection.

Reaching the most vulnerable

First key ethical issue to address when designing this research was related to the equal representation of individuals in vulnerable situations. Uekusa (2019, p. 1415) has raised a critical question for social vulnerability and resilience researchers: “Are we really reaching out to the socially vulnerable?”, highlighting challenges such as limited access channels, linguistic barriers, and overrepresentation of those with higher resilience, all of which contribute to certain populations remaining understudied. There are no official statistics providing whereabouts and counts of different marginalised groups. Many disadvantaged individuals live at the fringes of society and are not easily approachable. Moreover, they might altogether avoid contact with any authorities when faced with life circumstances such as lacking a legal basis for staying in the country, engaging in unofficial working arrangements, experiencing unstable living conditions, or struggling with addictions. Thus, conventional social survey techniques for recruiting the sample may be insufficient for reaching the most vulnerable. To tackle this hurdle, the Salvation Army, as a BuildERS project partner stepped in facilitating access to individuals who were receiving humanitarian aid at their service points across Europe. Additionally, in some countries (including Estonia), we approached similar social care organisations. We first engaged with managers and staff to start collecting qualitative data and, as the pandemic restrictions eased, built on this valuable opportunity by relying on these organisations as a gateway to reach their clients. Importantly, while facilitating contact with individuals who are rarely included in studies, the relationship between these organisations and those dependent on their services gave rise to specific ethical considerations and additional protective methodological strategies, which are detailed below. To recruit respondents from diverse life situations, including those most vulnerable and often overlooked, we directly approached individuals in soup kitchens, shelters, and other locations where they received social support. To address language barriers, we employed local interviewers and to ensure that survey questions are easily understandable for a wide range of participants, they were further refined based on the feedback from the pilot interviews.

Preparing the interviewers

We placed strong emphasis on guaranteeing voluntary participation and safeguarding respondents’ autonomy, particularly as recruitment took place via care organisations where they receive support. This dynamic amplified the researcher’s power position, especially when interviews were conducted by Salvation Army staff, creating a hierarchical relationship. To address this, informed consent procedures included a thorough explanation to ensure that respondents did not feel pressured to participate in the survey and understood that their participation had no impact on their continued access to services and support. Interviewers received specialised training to recognise and prevent any actions that might influence clients' decisions to participate in the survey. The training also emphasised preventing potential harm and ensuring adherence to ethical research standards. While many interviewers were already engaged in daily interactions with these clients, they received additional guidance on communicating with vulnerable individuals to avoid unintentionally reinforcing stereotypes, further discrimination, or stigmatisation. Given the sensitivity of questions related to past trauma, creating a safe interview environment was essential. The interviewers' ability to foster a sense of safety helped reaching individuals who seek to remain "invisible" to authorities.

Designing an ethical questionnaire and ensuring ethical oversight

The questionnaire of the survey was repeatedly reviewed and commented on during its development by ethicists of the project and approved by them. Among other aspects, attention was on avoiding any underlying biases or assumptions that could perpetuate stereotypes. As an additional tactic to circumvent presuming vulnerability as an inherent characteristic, the questionnaire aimed to reveal the interviewees' self-perception regarding their vulnerabilities and coping strategies. Giving these individuals a voice to describe their own perspective on their situation brought out that being vulnerable continues to be associated with stigma (e.g., being weak) (Schobert et al., 2023a). Clients of care organisations wanted to feel seen and appreciated as capable even though they were currently in need of the particular services (Schobert et al., 2023a). The gathered data from the survey was anonymised and aggregated by uploading it to the server. After that, it was accessible only for the researchers who analysed it. Semi-structured interviews with the staff of care organisations were recorded if agreed by the respondent and transcribed for analysis.

Personal reflections

In Estonia, I participated in the expert-interviews with the managers and staff of all five involved local care organisations and conducted more than half of the 61 survey interviews, both in Estonian and in Russian. For the latter, I visited several long-term accommodation facilities and soup kitchens in Tallinn. Despite the meticulous preparation described above, I found that the interview process required more nuanced adjustments in depending on the care organisation I visited. While in residential facilities we were provided with a room and a desk, which enabled me to enter respondents' answers into the digital questionnaire during the interview, the situation in soup kitchens was marked by greater everyday hardship. As these establishments typically operate in the very early morning or evening hours, their clients could only be reached in the dim light of dawn or dusk. In such open-air settings, where people were standing with their soup and bread, approaching them with a laptop in hand felt both impractical and out of place. Instead, I relied on printed questionnaires and sought out streetlamps or other light sources to take notes from our conversations. I found that the term "pandemic" often felt unfamiliar – or even incomprehensible – to respondents, so I began using the more familiar word “corona” instead. This suggests that the simplicity and suitability of the wording could be further improved in future studies. Despite the challenging conditions, we were able to reach a sufficient number of respondents and had meaningful interactions. Visits to care organisations allowed me to better understand their culture and the sense of care embedded in their work. From a researcher’s perspective, conducting in-person interviews with both staff and their clients offered a valuable point of engagement.

2.2. Data collection and analysis

The following subchapters detail each cluster of data collection, explain the rationale behind the chosen sampling and methodological strategies, and describe how the research process unfolded. Given the changing nature of the pandemic and its evolving societal impacts, the instruments for the national workshops and the international colloquium were designed in later research phases to reflect insights from earlier empirical findings.

We began by conducting semi-structured expert interviews to examine the pandemic through the lens of care organisations, focusing on the factors that shaped their ability to cope and their perceptions of how their clients were affected (**Study I–III**). To contextualise these insights, we also reviewed the regulatory measures implemented in each participating country **(Study I)**. Cross-sectional survey explored the first-hand experiences of individuals in vulnerable situations. My particular attention was on how they perceived the risks posed by COVID-19 and the mechanisms underlying these perceptions (**Study II**). Discussion themes of the following national online workshops built on the knowledge previously gained from both care organisations staff and clients (**Study III**). We concluded with an international online colloquium with expanded thematic focus and included a larger sample of representatives for individuals in vulnerable situations. All data collection methods contributed to answering both research questions of the thesis. For a more condensed overview of the research process detailed below, Table 2 summarises these elements.

Table 2. Overview of the data collection methods

Data collection method	**Study**	**Discussion themes**	**Process**	**Outcome**
Personal interviews (approx. 60 min each)	Studies I–III	- impact of the pandemic on the organisations - impact of the pandemic on their clients - what hindered and what helped coping - who became most vulnerable - who coped well - lessons learned	Interviews and their analyses were conducted by native speakers from the research team	Country reports
Survey	Study II	questionnaire	Survey interviews with the clients of care organisations	Survey dataset
National workshops (90 minutes online events)	Studies I–III	- what hindered and what helped when giving aid to clients - differences with the first wave experience - support from the public authorities - identifying and reaching the most vulnerable - tackling misinformation - advocatory role, collaboration with authorities and other partners.	1. Presentation of the results of the first stage and the survey among the clients of care organisations conducted by the research team 2. Reflections on the presentation 3. Discussion on the topics of the workshop, developed based on the Country reports	Workshop reports
Inter-national colloquium	Studies I–III	- experiences of the pandemic (biggest challenges, sources of help, interaction with national and local authorities, differences between the phases of the pandemic) - previous experiences and current situation with considering the needs and capabilities of marginalised groups and individuals with impairments - vision of the “ideal world” (how can vulnerable people’s voices be heard and considered better, how should care organisations be involved in disaster management)	1. Presentation of the results of previous stages of the study and the survey among the clients of care organisations conducted by the research team 2. Language-based discussions in break-out rooms 3. Joint discussion and wrap-up. Discussions were facilitated by the moderator and accompanied with the note-taker	Colloquium break-out rooms’ and joint discussions’ reports

Document analysis and semi-structured expert interviews

Constrained by the restrictions imposed to mitigate the spread of the virus, we initially conducted document analysis and transitioned to data collection via personal contacts as conditions allowed. To situate the research within each national context, local project members – myself in the case of Estonia – mapped relevant background information by analysing publicly available policy documents, including national and municipal regulations on lockdowns and financial support. This was complemented by a review of national media and major newspapers covering the situation of vulnerable individuals. In total, 38 policy documents, 37 media articles, and 29 other types of documents (such as reports on crisis response, statistics, and care organisations records) were scrutinised by native speakers **(Study I)**. The gathered information was compiled into country-based summaries and translated to English, providing a local timeline of the pandemic, main policy reactions, and a general societal response that illustrated the national context of the pandemic from March to July 2020. In order to understand the societal framework underpinning **Study I** we extended our search to encompass statistics concerning the state's welfare level (OECD, 2020a), the infection rate per 100,000 (ECDC, 2020) and unemployment dynamics (Eurostat, 2020) between March and June 2020.

We initiated our expert-interviews with managers and staff of care organisations **(Study I–III)** as promptly as possible to gather their reflections on the first wave of the pandemic. Limited by the rules of social distancing, we began conducting interviews via Skype in May 2020 and carried on through summer in person where restrictions allowed. We employed a purposive sampling strategy to capture the perspectives of care organisations and their staff across charity-based, municipality-financed, and privately operated providers. Key informants were selected based on their experience and involvement in managing pandemic-related challenges. Many interviewed managers were engaged with or oversaw multiple care organisations and services. Based on the services they provide, the care organisations involved can be categorised into four main types for the purposes of this dissertation. This distinction derives from the finding that the impact of the pandemic and the adaptations made by organisations were more aligned with their type than with their country of operation:

- soup kitchens (and food banks) attended by homeless and those with difficulties coping due to their material or psychological situations
- day centres that offer services (e.g., counselling, support from social workers, clothing aid) and facilities (e.g., common rooms with access to TV, newspapers, books, internet, showers, washing machine, kitchen equipment) to the homeless and individuals with coping difficulties
- temporary shelters, including night shelters and refuges, for individuals who spend their day elsewhere; and
- residential facilities offering 24/7 long-term accommodation and services, including resocialisation and alcohol and drug rehabilitation activities, which clients utilise for up to several months.

These organisations provide support to individuals with coping difficulties, people experiencing homelessness, migrants, victims of violence, the elderly, people with drug or alcohol addiction and individuals with impairments.

Having received written informed consent or respective confirmation by email, the semi-structured interviews (approx. 60 minutes each) in native language of the interviewee focused on three main themes: (i) the ways in which the organisation responded to the challenges introduced by the first wave of the COVID-19 pandemic; (ii) what helped or hindered the response of care organisation; and (iii) what effects on the organisation's clients did they see. The interviews were analysed by native speakers, complemented with national document analyses described above and summarised into comprehensive Country reports **(Study I–III)**. Following the collection of these Country reports, I then employed qualitative content analysis (Nowell et al., 2017) to identify significant commonalities and differences in how care organisations and their clients responded to the pandemic-introduced challenges cross-countries. To finalise, I sent this comparative analysis **(Study I–III)** for verification to the researchers that authored the Country reports.

Cross-sectional survey

In parallel with the expert interviews with the care organisations' personnel, we started the process of preparing for a cross-sectional survey among their clients. The framework for the survey, survey themes and their operationalisation used in this thesis were set forth in Orru et al. (2021) and supported by manual and training to guide the interviewers through the whole process. To validate the survey instrument, 17 pilot interviews were conducted at Salvation Army centres in three test-countries – Belgium, Norway, and Estonia. Based on the feedback, we adjusted the wording of questions and the procedures outlined in the interviewer's manual. The final version of the questionnaire was then translated into the native languages of the countries from which data was collected. In some cases, translations to non-European languages were necessary to interview migrants or non-native speakers. In Estonia, for example, we translated the questionnaire and also carried out interviews with Russian-speaking clients. Altogether, we included 273 respondents from eight countries in **Study II**, which examined the risk perception and the mechanisms underlying COVID-19 scepticism among marginalised groups. Of the care organisations' clients surveyed, 57% lived on the streets, in night shelters, abandoned houses, tents or under other temporary arrangements, and 25% lived in their own home. Clients of long-term accommodation made up 13% of the sample. Altogether, 30% of survey respondents were female (n=79). A little over half (55%) of the sample was between 40 and 60 years old, with people living in the long-term facilities generally older. Overall, 74% of survey respondents identified as national citizens of the country, 13% as immigrants with residence permit, 0,5% as asylum seekers, 6% as undocumented, and 5% did not answer this question. 18% of all respondents considered themselves part of a minority. In the following, I outline the main themes of the survey questionnaire, grouped according to their relevance to individual, social-structural, and situational factors of vulnerability. A brief description of the analysis methods used concludes this subchapter.

The survey questionnaire included several variables reflecting individual factors of social vulnerability. We asked respondents about demographic characteristics such as sex, age, residence status (national citizen, or, if holding any other status – immigrant with a residence permit, asylum seeker, or undocumented resident – grouped under the category "migrants") and whether they perceive themselves as belonging to a minority group. To gain insight into respondents' health status, we applied Nikoo et al.'s (2015) enumeration of the frequent physical and mental health issues among individuals in precarious material conditions. In addition, we asked respondents to self-assess their overall health. To understand how individuals in vulnerable situation perceived their psychological resilience, we applied five questions adapted from Smith et al. (2008), capturing self-assessed abilities to cope with change, recover from hardship or illness, remain focused under stress, manage difficult emotions, and hold the belief that they are strong individuals. We assessed the risk perception of care organisations' clients through two statements "I don't believe the virus causes me notable harm" (reflecting perceived severity of the disease), and "Since March 2020, I have been afraid of being infected with COVID-19" (reflecting perceived probability of infection). General health-related worry was measured with a question: "I generally worry about risks related to my health (e.g., falling ill)". Respondents were also asked to indicate their agreement with statements regarding health protective behaviours, such as avoiding contact with others or increasing personal hygiene. To map patterns of information-seeking behaviour, they were then asked to identify the two most important sources of information from a list of twelve options, including television, newspapers, social media, friends, personal observations, police, and social workers.

Regarding material security, we mainly focused on the level of protection provided by living arrangements as a source of social marginalisation. Using the Framework for Understanding Homelessness on a Global Scale (Busch-Geertsema et al., 2016), we categorised respondents into three groups based on where they reported living during the past year: i) "Home"; ii) "Street or temporary arrangement" – including locations such as the street, a car, temporary stays with friends or relatives, motels, tents, abandoned buildings, or homeless hostels; and iii) "Centre/facility" – referring to long-term accommodation such as rehabilitation centres (e.g., for substance use or post-prison reintegration), migrant facilities, or housing that supports resocialisation. Additionally, we measured the socioeconomic security of respondents through the scale of economic engagement (formal paid work, informal paid work, etc.) (OECD, 2020b). We assessed social capital across its three dimensions. Bonding capital was measured using items from Lin et al. (2019), such as: "I experience a lot of understanding and security from others"; "I know a very close person whose help I can always count on"; and "I know several people with whom I like to do things." Bridging capital was captured with statements such as: "I regularly stop and talk with people in the area where I live" and "I feel like I belong to the area where I live". To examine linking capital, questions were adapted from the European Social Survey: "I can trust the police" and "I can trust social workers." As closely related aspect, trust in government communication about COVID-19 was measured separately, using the statement: "I trust the information that the government of this country provides on the ways of avoiding COVID-19 infection."

The survey measured exposure to COVID-19 in several ways. Country-level exposure was evaluated for all participating countries, with Portugal, Spain, and the Czech Republic identified as having high infection rates. In addition, we asked respondents whether they had been infected themselves, whether their friends had been infected, and whether they had lost someone close due to COVID-19. We defined socio-economic outcomes as impacts on respondents' income and access to food and shelter, as suggested by Van der Geest & Schindler (2017), and asked respondents whether and how the pandemic had negatively affected them in these areas. Psychological impact of the pandemic was assessed using two variables. The first captured self-reported mental strain: "The pandemic has had a negative effect on my mental wellbeing, or my mental health" (Van der Geest & Schindler, 2017). Furthermore, the questionnaire delves into the psychological trauma caused by the pandemic using selected items from an adopted version of the post-traumatic stress disorder scale (Bliese et al., 2008), including: "I have recurring thoughts or memories of the pandemic", "I feel sudden emotional or physical reaction when reminded the pandemic", "I avoid thoughts or feelings associated with the pandemic". The survey also included a free text question: "Since the outbreak of the pandemic in March 2020, what has caused the biggest problem for you?" This allowed respondents to express in their own words, independent of the survey's predefined questions and answer options. It also enabled comparison between the perceived significance of psychological challenges (e.g., loneliness, concern about infection) and economic or socio-economic challenges (e.g., loss of income).

We used one-way Anova to test for differences in group means, Chi-square tests to examine group distributions on categorical variables, and bivariate correlation analyses (Pearson's correlation coefficient) to assess associations between variables. To explore factors explaining variation in responses to two key statements – fear of infection and perceived harm from COVID-19 – hierarchical linear regression analyses were applied, enabling assessment of the unique contribution of each independent variable while controlling for others. Analysing the free text answers, we used a thematic analysis and divided the answers into five main categories, "material impacts", "health", "social relations", "freedom of movement", and "impact of measures", plus two summary categories, "other" and "no answer". Although these types of impacts are related, we define them as separate categories to grasp the most important aspects of the COVID-19 impacts on the respondents.

National online workshops

As the pandemic progressed into the second wave, the situation with both rates of the infection and enforced official restrictions was constantly evolving. Our aim was to capture how these developments manifested in the dynamics of vulnerabilities. To deepen the knowledge we had already gathered, we sought to validate the initial results from the survey with clients of care organisations as well as from the interviews with their personnel. Equally importantly, cross-country comparative analysis identified universal recurring themes and challenges irrespective of location, while also uncovering areas for further research.

With these objectives in mind, we carried out 5 online national workshops with representatives of care organisations in Norway, Estonia, Hungary, and Belgium from June to September 2021, providing empirical input for **Studies I–III**. The structures of these discussion groups and the topics covered were unified across all countries. In the two held in Estonia, my supervisor and I first presented the findings from the survey and from personal expert interviews and then invited participants to reflect on these findings from the perspective of their organisation. Thereafter, the discussion concentrated on themes that had emerged from the prior discourse. In particular, the focus was on what hindered and what helped when supporting their clients, the availability of support from public authorities, collaboration with the authorities and other partners, tackling misinformation and advocatory role of care organisations for their clients. We also wanted to delineate differences from experiences of the first wave. The 90-minute workshops were recorded, and I then used the transcriptions to fill in country-based report forms in English, that we had composed beforehand. The same was done by native speakers in our research teams in other countries. I used qualitative thematic content analysis (Nowell et al., 2017) on these reports to identify major commonalities and differences in care organisations' responses and verified the cross-country comparative analysis report with the research team behind each workshop.

International colloquium and final analysis of the data

In the final stage of the research, we employed a purposive sampling strategy to expand the participant base for the international colloquium (**Study III**), additionally including a charity organisation, several associations of individuals with impairments, a care home, a home care provider, a psychological first aid centre, a service supporting victims of violence, and 24-hour social emergency aid. Although not all colloquium participants can typically be classified as "care organisations", they are referred to as such here for simplicity. By engaging a wider spectrum of support structures, we aimed to capture insights from a broader diversity of individuals in marginalised or vulnerable situations.

Building on the extensive knowledge accumulated in the previous stages, this phase sought to develop a more generalised understanding and shift the focus toward a more systemic level of disaster management – elucidating the mechanisms behind the emergence and exacerbation of vulnerability during disasters. Alongside this analytical focus, the colloquium also created space for representatives of vulnerable individuals from different countries to share their experiences and reflect collectively on the themes raised, contributing to the overarching insights explored throughout the research.

An online international colloquium titled *Care Organisations' Role in Disaster Management* brought together 42 experts, who were first presented with the findings from previous stages of the research. Participants were then divided into six language-based groups (English, Estonian, Finnish, German, Italian, and Norwegian) for 45-minute discussions, each facilitated by a moderator and accompanied by a note-taker. The first set of questions covered pandemic-related experiences, including aspects of communication, information mediation, and misinformation. The second half of discussion focused on participants' perceptions on the "ideal world" of inclusive disaster management, particularly expectations regarding collaboration with government and local institutions before, during and after disasters. They were also asked to assess the extent to which their clients' needs are addressed in disaster preparedness and to reflect on their organisation's role in societal resilience. Reunited in the joint colloquium web room, each language group briefly presented their key takeaways, followed by a short collective discussion.

Similarly to the process after workshops, transcriptions and notes from each language-based groups were summarised on previously prepared report forms in English by native speakers and added to the rest of the qualitative data collected during the 1.5-year period. I then used qualitative content analysis (Nowell et al., 2017) to carry out final analysis and sum up the results of this extensive research. Such an iterative data gathering and analysis process enabled to validate the findings of previous stages and assess the developments that took place during this long-term crisis. Additionally, it provided us with the opportunity to follow up on the themes and pain points that emerged. By combining the qualitative case study design (Yin, 2014) to collect data from care organisations and quantitative cross-sectional survey to gather data about their clients, we obtained a more comprehensive perspective on the well-being of marginalised groups and the factors that shaped their vulnerabilities.

2.3. Limitations of the study

Conducting this research within the framework of a European Commission Horizon 2020 project brought both advantages and limitations. A key methodological constraint in such settings is the requirement to follow a standardised data collection protocol across countries, which can limit sensibility in capturing local specificities. At the same time, participation in an international project enabled access to contextually similar data from multiple European countries – an otherwise unobtainable and highly valuable input that broadened the scope of the study beyond a single-country context. I also appreciated the collaboration with ethicists from the University of Tübingen, given the sensitive nature of researching vulnerable individuals.

Despite our efforts to reach the most vulnerable individuals, we were ultimately able to include only those experiencing homelessness or precarious living conditions who had, in some way, engaged with care organisations – even if only to receive a warm meal. As one interviewee remarked, these individuals are "saved", at least to some extent. Although social workers hold a level of trust with their clients that external researchers cannot easily access, delegating both the selection of the interviewees and the conduct of survey interviews to care organisations' staff can also be considered a limitation of our research. This reliance introduced potential constraints. In Estonia, this was mitigated by relying on social workers only for initial contact, while the interviews themselves were carried out by a colleague and me.

Data collection for this research faced specific challenges due to the unprecedented conditions of the global pandemic, which affected the process not only through social isolation measures but also through the general uncertainty and heightened tension that characterised this period. These circumstances likely contributed to relatively small sample sizes of respondents in some countries and an uneven distribution of respondents across the studied countries, ranging from 17 to 61 – presenting a significant methodological weakness of the cross-sectional survey. However, it is important to note that the purpose of the analyses was not to make cross-country comparisons, nor did we aim to compare individual organisations. Instead, we look at marginalised groups by different living conditions (living in their homes, in facilities and on the street or under temporary conditions), categorise organisations into four key types, and examine their coping strategies within different national frameworks. It is still important to include these smaller country samples as they include respondents who are hard to reach and are seldom included in surveys. A related challenge, given the small sample size, is the representativeness of the respondents in relation to the broader populations of marginalised individuals living at home, in facilities, or on the street in each country. These categories are unevenly represented in the national samples, and with a limited number of respondents, it is reasonable to question whether they adequately reflect their respective groups. While previous studies on socially marginalised populations often focus solely on individuals experiencing homelessness or living in temporary arrangements (Schreiter et al., 2017), this thesis takes a broader perspective. It includes individuals in vulnerable situations ranging from those living in their homes to those residing in temporary settings or on the street. We also include minorities, migrants, asylum seekers, and undocumented immigrants. This broad conceptualization of vulnerability is one of the unique contributions of this research. Women make up only 30% of the respondents in the sample. Given that the majority of people experiencing homelessness are men (Milaney et al., 2020), this relatively low proportion of women is consistent with the composition of the studied population.

This thesis draws on extensive data generated through diverse methods. Some limitations of the quantitative study are offset by the rich qualitative material from interviews and workshops with staff of care organisations. These include self-reporting of respondents' assessments and subsequent possible subjectivity, as well as reliance on cross-sectional data as opposed to longitudinal data that would enable establishing causal mechanisms behind the drivers and outcome variables. However, in using a combination of methods and such a wide spectrum of care organisations and the vulnerabilities their clients represent, there is a risk of some superficiality and generalisation. At the same time, the generalisability of the research may be questioned due to its focus on a single crisis – the COVID-19 pandemic. This research – in line with other studies – shows that the mechanisms behind the emergence and exacerbation of vulnerabilities, as well as the role of interactions between actors in disaster risk management, are both central and largely consistent across different disaster contexts.

3. FINDINGS

The findings of **Studies I–III** reveal the realities of marginalised groups during the COVID-19 pandemic. Alongside the experiences of the organisations that supported them, these form the core of Research Question 1, which is addressed in the first section of this chapter. In what follows, I will turn to Research Question 2, elaborating on the factors that shaped their vulnerability under the prolonged strain of the crisis.

3.1. Experiences of marginalised groups during the pandemic

By mid-March 2020, states of emergency had been declared in all studied countries. The economic shutdown fuelled inequalities, with average percentage drop in income three to six times greater for low-income earners compared to those with high incomes (European Commission et al., 2022), pushing people beyond the threshold of coping. Individuals with lower socioeconomic status faced a higher risk of COVID-19 infection and severe illness, compounded by unequal access to care and the disproportionate impact of psychosocial, health and socioeconomic impacts of the pandemic (European Commission et al., 2022). In all studied countries, the pandemic had a profound impact on the availability of the support for marginalised groups. **Study I** found that, despite some national differences in restrictions, the challenges faced by care organisations and their responses can be grouped by four institutional types. All day centres were closed, cutting off access to warm indoor spaces and services. Soup kitchens were prohibited from receiving clients on site. Night shelters remained open, while long-term accommodation facilities suspended new admissions and services, imposing social isolation measures.

Adaptation and initiatives of care organisations

Expert-interviews with the managers and staff of care organisations in **Study I** found that to continue supporting vulnerable individuals amidst government regulations that restricted their operations, care organisations implemented multiple rearrangements in their activities. Soup kitchens distributed food to go or even delivered it. Several day centres also started providing food outside their premises. Many of their workers changed the mode to operating on the streets, looking for the homeless. To reach their clients, day centres started to give psychological assistance and instructions by phone, e-mail and Skype. They also organised Wi-Fi networks that extended outside of the shelter, telephone-charging points, laundry pick-ups, and other creative solutions to uphold services. Long-term accommodation facilities limited clients' infections risks by organising joint deliveries of shopping and enforcing hygiene rules in creative ways – such as handing out room keys only to freshly disinfected hands. To alleviate loneliness, social workers arranged books, colouring materials, films etc. to their clients. Some night shelters also shifted to 24/7 provision and adopted similar practices. **(Study I)**

As a major novel task, social workers took it upon themselves to combat misinformation and deliver official crisis information to their clients. They printed government regulations, translated them into languages of their clientele, and disseminated leaflets throughout the area. Care organisations also initiated multiple contacts with local and governmental institutions to advocate the interests of their clients. In some countries, care organisations launched campaigns to raise awareness and gather support and donations for people in vulnerable situation. **(Studies I, II, III)**

Impact of care organisations' rearrangements on clients

Losing access to care organisations was hard for clients. Restrictions cut off the services they relied on, leaving them struggling to cope with daily life and often not understanding why they were no longer allowed into the rooms where they used to find shelter and support. This led to feelings of frustration and anger. Although care organisations tried to remain available to their clients through phones and digital services, their help was often inaccessible due to a lack of language and/or digital skills, devices or internet access. Clients with more private problems, closed nature or inability to communicate freely from home (for example, due to domestic violence) as well as new clients might have not been able to express their need for help by telephone. Loneliness and depression due to social isolation had the greatest impact on the elderly living at home. Clients of residential facilities and shelters that reorganised to provide full provision felt most safe and taken care of. They appreciated the efforts of social workers and conveyed feelings of gratitude and solidarity. (**Study I, Study III**)

Impacts of poor inclusion

Findings from the interviews, workshops and colloquium conducted with personnel from care organisations and disabled people's associations reflected neglection of marginalised groups (**Studies I, III**). Most egregious example highlighted were criminalisation of homelessness and imposition of fines on individuals who had no viable option to "stay at home" in some countries. One Lithuanian interviewee pointed to an unrealistic rule: "COVID-19 tests were not offered to homeless – if you want to get tested, you have to go to a drive-in test point, but homeless do not have cars". As a harsh illustration of "parallel communities living in the society", migrants with distinct legal statuses were, in several countries, deprived of equal access to services. (**Study III**).

Migrant populations were described as becoming increasingly invisible, as if they were not worthy of the attention of national policies. They were particularly affected by accusations of spreading the virus and, in some instances, faced deportation (**Study II, Study III**). Although there were some positive developments, such as the swift production of national crisis news in sign language in Estonia, many services – for example, COVID-19 testing for visually impaired – remained inaccessible for individuals with disabilities (**Study III**).

The findings also indicate that lack of consultation with care organisations sometimes yielded in ineffective use of governmental support. The negative impact of crisis measures on care organisations and consequently on individuals in vulnerable situations was generally addressed not by the authorities, but rather through initiatives taken by the care organisations themselves **(Study III)**.

COVID-19 misbeliefs

In stark contrast to the real threats posed by COVID-19 to marginalised groups, the results of the **Study II** revealed a widespread underestimation of these risks among them. Regarding the probability of getting infected, 49% of the survey respondents can be labelled COVID-19 sceptics. 38% did not believe that the virus could cause notable harm i.e. can be labelled as COVID-19 sceptics with regard of its consequences. Social workers confirmed an alarmingly high prevalence of misinformation and misbeliefs, downplaying seriousness of the virus, questioning its origin or even its existence, and circulating ineffective or harmful guidance for avoiding or treating the disease **(Studies I, II, III)**.

3.2. Individual factors of vulnerability

Individual vulnerability factors that affect coping capability arise from the unique interplay of a person’s characteristics, including their physical, emotional, and mental state; competencies and skills; risk perception and related attitudes; and capacity to prepare for and manage disasters. We examined the specific impacts of the COVID-19 pandemic on socially marginalised women in a related article included in this thesis (Olson et al., 2023). Overall, women experienced more severe mental health effects, including being psychologically harder hit by the material consequences of the pandemic – even though material impacts did not significantly differ between genders. Instead, our other related article found socio-economic hardships to be associated with younger age and migrant status (Siimsen et al., 2023).

Mental health sensitivities

The pandemic situation created conditions that dramatically heightened mental vulnerability across the population (Xiong et al., 2020). Social workers highlighted that psychologically fragile individuals and those with mental health disorders became particularly vulnerable, finding it difficult to understand the situation and manage feelings of fear and anxiety. They were also severely impacted by social isolation and loneliness **(Study I)**. A social worker in Tallinn told me, that older people sometimes even struggled to get food, as they were afraid to leave the house (Tallinn, June 16th, 2020). A lack of digital skills or devices, hearing or visual impairments, challenges in understanding official crisis messages, or not speaking the local language left many unable to access or even ask for the support they needed. Interviewed personnel of care organisations worried that the effect on their clients' emotional well-being would worsen in time. **(Study I, III)**.

Individual information consumption habits and access to information

Individual information consumption habits inform whether a person turns to mainstream (public) media – such as television, radio, and newspapers – for official crisis information, or instead relies on social media, depending on the quality of content it provides. **Study II** found that patterns of media use varied across different living arrangements, linking this individual-level factor to broader socio-structural mechanisms affecting marginalised groups. Television was the most commonly selected main source of information (53%), followed by social media (22%), with neither showing significant variation across groups. Newspapers, however, were more often mentioned by respondents in residential facilities (26%) than by others (12%), likely reflecting assumed differences in their availability. Reliance on social workers was notably higher among those living on the streets (21%) compared to facilities (11%) and homes (9%). However, social workers strongly emphasised concern about the limited ability of marginalised groups to even access or understand official information. Language barriers often pushed people to seek information from alternative sources, such as media from their country of origin, rather than local news. For example, in Estonia, many Russian-speaking clients began to take the pandemic seriously only after it was acknowledged in Russian-language media. Another critical aspect that emerged was the recognition that merely conveying crisis information is insufficient; support is often needed to ensure that it is understood and can guide action. "We explained and explained … and explained once more" a social worker recalled during our conversation (Tallinn, June 30th, 2020), illustrating the sustained effort required to facilitate sensemaking of the situation and to encourage adherence to safety measures (**Study I**).

Risk perception and beliefs

During the pandemics, individuals' perception of risk becomes a pivotal factor in their vulnerability, directly shaping behaviour and adherence to health protective measures. Survey results showed that the strongest predictor of COVID-19 scepticism among care organisation clients was their general lack of concern about health risks. The more they generally worried about their health, the less likely they were to underestimate the risks presented by the virus. Low trust in government-provided information about the pandemic also emerged as a strong contributing factor **(Study II).** Qualitative findings in **Studies I–III** indicated that reliance on social media was strongly linked to having misbeliefs while national TV was emphasised as supporting understanding of the situation. Interviews with social workers revealed that even when official news reached their clients, they were sometimes misunderstood and spread inaccurately. Peer-to-peer communication also played important role: when clients communicated about getting infected or quarantined, fear and anxiety replaced the initial disbelief. Rumours of mild cases of COVID-19 decreased risk perception and demotivated use of protective measures. Similarly, risk perception was higher in the areas with high infection rate and vice versa.

In addition to general coping challenges related to migrant status, belonging to a minority group was also associated with higher levels of COVID-19 scepticism. Qualitative data indicated that old age was protective against COVID-19 scepticism. Social workers described migrant communities as particularly sceptical of the seriousness of the disease. Worries among homeless people living on the street and in short-term shelter were characterised as weakest. They were described as difficult to reach and often not believing in COVID-19 regardless of their age and background. The mental health and psycho-social factors had varied effects on risk perception. Addiction to drugs or alcohol impedes understanding of the seriousness of the situation and adherence to crisis measures. This can also apply to individuals with mental health problems, while inversely, pandemic information also often caused them to feel anxiety and panic. In several cases, being disinterested or reluctant to receive information was described related to the above. **(Study II)**

3.3. Vulnerability factors stemming from societal support networks

Among the social-structural factors shaping the coping of marginalised groups, those stemming from the "societal support networks" quadrant of the social vulnerability framework relate to the social ties an individual has within their family, neighbourhood, community or other close social circles.

Social capital

Findings of the survey among marginalised groups in **Study II** bring out the importance of social capital in the coping of marginalised groups by shaping their perception of COVID-19 related risks. Clients of care organisations who had higher levels of all types of social capital (measures of close social relationships, perception of connectedness to their neighbourhood, and trust in public authorities combined) were less likely to underestimate both their risk of infection and the severity of the disease. Additionally, social workers specifically highlighted migrant communities as having limited integration and knowledge of the local language, along with low levels of trust in authorities. (**Study II).** Care organisations were the key sources of social capital for marginalised groups. However, the functioning of their support provision was influenced by several factors related to the internal functioning and external relations of these organisations explained below.

Factors influencing care provision to marginalised groups

In **Studies I–III**, care organisations that support and/or represent disadvantaged populations emerged as a key safety net, providing not only vital material assistance and social services, but also fostering a sense of belonging through interaction with staff and fellow clients. Given their essential role, gaining insight into the resilience of these organisations is integral to grasping the social-structural dimension of RQ1. Against this backdrop, this chapter next focuses on how care organisations sustained their support functions during the pandemic and the conditions that influenced their resilience **(Study I)**.

As the role of assisting marginalised groups fell largely on care organisations during the pandemic, their resilience was put under significant strain. **Study I** unravelled several factors that either facilitated or challenged their ability to continue providing services essential for vulnerable individuals in this unprecedented crisis. To analyse these factors, we adapted the Pentagon model (Schiefloe, 2011), which focuses on five key organisational dimensions: structure; technology, infrastructure, and equipment; culture; leadership and communication; social relations and networks; and the external framework conditions of the organisation's functioning (detailed in **Study I**).

External networks and societal framework. At the onset of the pandemic, insufficient or delayed support from public institutions strained the coping capacities of all types of care organisations. Over time, cooperation between care organisations grew stronger, and in many countries, collaborative efforts to support individuals in vulnerable situations also extended to include private businesses and citizens. Various (new) stakeholders contributed with donations, food, disinfectants, masks etc., and volunteers played a critical role in alleviating staff shortages. Support from municipalities was also a key resource. In some cases, care organisations were able to get additional shelters for the homeless from (local) governments. Even so, experiences with external help varied considerably – alongside increases in donations, social workers described their clients becoming even more invisible. As one interviewee noted, "If you never care about them (i.e. marginalised individuals), why should you care now" (Lithuania, May 28th, 2020). **(Study I–III)**

A pervasive problem highlighted by managers and staff of care organisations across all countries was the confusing guidelines provided to them by authorities, particularly during the early stages of the pandemic. Social care for homeless and other marginalised groups "fell in between" their target groups, as these organisations are neither health institutions nor nursing homes typically addressed by such directives. Uncertainty and changing rules posed significant challenges to care organisations' operation, increasing workload and placing additional demands on managers. Interviews with managers of care organisations also revealed a lack of recognition for social workers, who were consistently overlooked as frontline workers – despite the essential nature of their work. In the words of a Salvation Army management member: "It felt like the city had forgotten us" (Helsinki, June 9th, 2020). **(Study I, Study III)**

Organisational structures of care organisations were challenged by high workload and stress. Numerous new tasks resulting from rearrangements of care organisations' services, combined with a substantial increase in demand, greatly added to social workers' workloads. Many organisations experienced shortages in staff and operating on the verge of burnout was commonly reported. Often, social workers and volunteers themselves fell into the risk group of COVID-19 due to their age or health conditions. Communicating pandemic regulations to clients was sometimes hindered by inconsistent understanding and acceptance of the rules among the staff themselves, particularly regarding vaccination and mask-wearing policies, which sparked differing opinions. The intense work, concerns about the infection, and worry for clients unable to access accommodation or other services were both physically and mentally stressful, while psychological support and supervision were limited. The manager of Italian day centre reflected on the emotional toll, saying "It was very painful for us, having to tell users that we couldn't accommodate them" (July 16th, 2020). **(Study I, Study III)**

Culture. A recurring pattern in the data indicated that the organisational culture of social care providers is deeply rooted in their mission to assist. This sense of purpose, serving as the foundation of their commitment and actions, was reflected in how they reached out for their clients and maintained services despite pandemic restrictions. One interviewee articulated this in our conversation: "We closed our soup kitchen at first, but then we reminded ourselves what our organisation stands for and found ways to continue providing food for those in need" (Tallinn, May 29th, 2020).

Leadership and communication. Another important factor facilitating resilience of care organisations stemmed from strong leadership and cooperation among the leaders within and across the social care sector. Organisations' managers relied on their solid expertise in the field and found creative solutions to adapt to the pandemic. They made bold decisions about how to arrange operation of services keeping their staff and clients safe when there were no official guidelines to rely on. In addition to the heavy volume of internal communication required to keep organisations running under pandemic conditions, staff-focused interaction centred on addressing their fears (particularly among those in high-risk groups), providing emotional support and recognition, and, when necessary, encouraging compliance with health-protective behaviours and vaccination.

Social relations and networks. When interacting with clients, the importance of long-term relationships between staff and clients was pointed out as a key factor in successful adaptation to the situation. Clients were described as somewhat negative and agitated at the beginning of the crisis, but became increasingly more accepting of the restrictions, grateful for the support and appreciative that social workers remained available for them. Trust in social workers was essential for conveying official crisis messages and ensuring compliance with restrictions. Clients were described to believe that "if a rule was implemented by the care organisation, there must be a reason behind it, and that reason was for their own benefit" (Estonian workshop, August 25th, 2021).

Technology, infrastructure, and equipment. Small rooms and shared hygiene facilities made the physical infrastructure of care organisations generally ill-suited to pandemic conditions, at times leaving social workers no choice but to recommend that "clients stay on the street, forest, or any outdoor areas since it was much safer there" (Hungary, June 25th, 2020). In the early stages of the pandemic, the scarcity of personal protective equipment posed a significant challenge. Increased demand of services, obtaining disinfectants, protective gear and the added costs of rearranged services (such as food delivery and digital communication) strained the resources of care organisations. Many of them rely on donations from communities and private companies and the funding was often insufficient. In response to facility closures, many care organisations transitioned to phone and digital counselling to maintain contact with their clients. However, in addition to accessibility issues for some clients, interviewees pointed out that social work is, by its nature, not well suited to remote delivery, as it is personal contact that encourages people to disclose their situation and real needs more openly and allows social workers to observe non-verbal cues (**Study I**).

3.4. The role of public support structures in the vulnerability of marginalised groups

Governmental institutions and disaster management authorities are tasked with ensuring disaster response activities and maintaining availability, accessibility and quality of core services, such as medical and psychosocial care, rescue operations, law enforcement, national broadcasting, and crisis information dissemination. Related social vulnerability factors affecting the coping of marginalised groups are categorised under the "public support structures" spectrum of the social vulnerability framework. This dimension also addresses elements of governance, examining how interactions between disaster management actors affected the coping conditions of marginalised groups during the pandemic. Through the implementation of crisis measures and regulations, public authorities also shape the broader conditions for societal functioning under these extreme circumstances. Official crisis communication not only provides vital information but also influences public perceptions and trust in authorities.

Socioeconomic impacts of the pandemic pushed many people to the brink of poverty. Staff at soup kitchens described large influx of new clients who not only faced economic hardship but also experienced emotional distress when seeking social support for the first time. Many migrant workers, often young adults, struggled with sense of shame when seeking help, compounded by the added helplessness of being in a foreign country. Personnel of accommodation facilities witnessed many of those who were trying to work their way out from the social care losing sense of hope. For people living on the streets, implementation of the lockdowns eliminated the opportunity to beg on the street and collect leftovers from restaurants. **(Study I)** Receiving social benefits as the main source of income was associated with protection against negative material impacts (confer Siimsen et al., 2023 for more detail on socio-economic outcomes).

Insights from qualitative data underscored the role of living arrangements in shaping mental health outcomes of vulnerable individuals. Clients of long-term accommodation facilities received the best support. Loneliness and depression due to social isolation had the greatest impact on the elderly living at home and individuals with disabilities. Clients of day centres, including those experiencing homelessness, lost psychological support from the staff of day centres. **(Study I, III)**

Exclusive disaster management

Quality of decision-making at various levels of governance has fundamental impact on individuals' coping in a disaster (Birkmann et al., 2013). Tailoring crisis measures to the needs of marginalised groups requires awareness of their life situations and of the specific characteristics of the care organisations that support them. Drawing on interviews and workshops with staff and managers of care organisations, as well as an international colloquium involving a broader range of representatives of vulnerable groups, this thesis identified serious shortcomings in the practical implementation of inclusive disaster management principles set out in key policy documents.

Care organisations and social workers were not recognised as stakeholders. Reflecting on the general state of disaster management, participants in the colloquium with care organisations voiced concern that crisis decision-makers often show poor understanding of who is vulnerable in a disaster and what their specific needs are, and that improving this understanding does not seem to be a priority. It was also repeatedly indicated that there seems to be a lack of framework or official coordination mechanism to facilitate the inclusion of the vulnerable people's needs in crisis planning and training. In some cases, including care organisations into disaster planning is required by law, but in practice this rarely happens. Social workers saw lack of tradition to collaborate as a reason for this and feel that there is not enough will to involve their organisations. In one case, it was expressed that previous involvement in roundtables and discussions with authorities have been formal, done to "tick a box". Representatives of care organisations expressed belief that they are best equipped to convey the messages of vulnerable people to the policymakers, as they possess deep expertise in the field while also "speaking" the language of the authorities. (**Studies I, III**)

Regarding the COVID-19 pandemic, findings from **Study III** revealed that organisations supporting or representing marginalised groups were consistently excluded from the process of tailoring crisis measures. Managers of care organisations described numerous efforts they made to engage with authorities and (local) governments in order to bring attention to the situation of their clients: "We had to fight to show that our clients exist, that there is many of them" (Tallinn, June 30, 2020). Despite these advocacy initiatives, social workers were rarely involved into COVID-19 response work groups and the level of collaboration varied across countries and level of governance. Episodes of successful collaboration with governments were highly appreciated. Not only in terms of getting resources and accommodation for vulnerable people, but also for boosting staff's morale, ensuring that they are equipped to disseminate accurate information, and that their services align with pandemic regulation. However, such positive examples were far less common than needed, and after the first contact, only a few instances of continuing consultations with social workers and disabled people's associations were established, mostly in countries with a stronger relationship between social services and the government (**Study I**). No cases of involvement in decision-making and planning processes were described, and the general assessment of awareness of the needs and capabilities of marginalised groups expressed unanimous dissatisfaction and concern. As a factor facilitating interaction with authorities, personal contacts and networks were pointed out. These lines of communication were often based on pre-pandemic relationships, but many new connections were also built, with hopes of them becoming long-lasting. (**Study III**)

Inadequate provision of accessible official crisis communication. Findings from **Studies I, II** and **III** consistently highlighted major crisis communication failures. The accessibility of official information and guidelines distributed to the public was limited by absence of translation into other languages, disregard for illiteracy and limited comprehension ability, and lack of materials in Braille – all deficiencies that significantly impacted marginalised groups. With the words of a social worker: "Governments assumed that everyone will just watch the news" (Colloquium, 2022). Information was also often provided in a manner that required digital devices, Internet access, and corresponding skills, thereby excluding those who lacked these resources.

In addition, closing the doors of care facilities not only hindered access to television, radio, newspapers, and the Internet but, equally importantly, it deprived clients of the support provided by social workers in navigating and making sense of the flood of information. This deprivation was also experienced by clients who had their (home) visits, consultations or other usual contact services with social workers stopped or moved to web. All these communication barriers not only affected the reception of crisis information but also increased loneliness among vulnerable people and heightened fear and anxiety, especially among individuals with mental health problems. In a chaotic information environment, marginalized groups found it difficult to identify what was relevant to them. (**Study III**)

4. DISCUSSION

In the pursuit of fostering resilience amid the escalating challenges of the polycrisis era (Lawrence et al., 2024), it is crucial to deepen our understanding of social vulnerability – a dimension that has been comparatively overlooked thus far (Uekusa et al., 2025). These two intricate social phenomena are deeply intertwined and coexist in a way that one cannot be fully comprehended without considering the other (Morsut et al., 2022b). The conceptualisation of social vulnerability is shifting beyond deterministically labelling certain groups as vulnerable based on individual traits, towards recognising the complex interplay of individual, social-structural or situational factors that shape a person's capacity to cope during disasters (Kuran et al., 2020; Wisner, 2016). In parallel, scientists and international disaster policies are calling for inclusive disaster management practices and greater consideration of the needs of vulnerable individuals (Roth, 2018; Twigg & Lovell, 2018; United Nations, 2015). Indeed, this necessity is also being increasingly articulated by the practitioners. As one rescue officer expressed it to me: "We have come to realise that every disaster is also a crisis of the social welfare system". However, incorporating the social vulnerability aspect into long-established, often response-oriented crisis governance practices and implementing novel frameworks for truly inclusive disaster management has proven to be highly complex and demanding (Jang & Ha, 2021; Kosanic et al., 2022; Morris, 2020; UNDRR, 2023b). Narrative of marginalised groups as vulnerable and incapable has kept these individuals and their representative organisations excluded from disaster management (Pertiwi et al., 2020; Zayas et al., 2017; von Meding & Chmutina, 2023), and similarly, the role of social service providers in disaster management have not been recognised (Crawford, 2021; Hay & Pascoe, 2021; Rapeli et al., 2018).

Despite ample evidence of the severe ramifications that disasters have on marginalised groups, there is a notable lack of empirical data and analysis on the drivers determining their vulnerability. This thesis aimed to address this gap by thoroughly examining the underlying factors that genuinely shape the vulnerability of these "risk groups" during prolonged crises. As a unique contribution, I apply a dynamic and intersectional approach to addressing the vulnerability of marginalised groups, which have generally been viewed as homogeneous, fragile communities with low levels of agency. Scrutinising the nuances of the experiences of the most vulnerable individuals and the mechanisms that shaped their coping provides valuable input to the discussions of resilience building.

In this chapter, I will discuss the five main theses that emerged from this dissertation. At first, I will delve into the heterogeneity of pandemic experiences across marginalised groups and the barriers they encountered within the information landscape during this crisis. As follows, I will focus on two conceptual spectrums of social vulnerability that emerged as pivotal in my research: the institutional responses to COVID-19 and the adaptations of social care providers, as well as the impact of both on the coping of socio-economically deprived communities. My fifth thesis weaves together the intricate threads of social vulnerability, analysing the interplay of various factors that influenced marginalised groups during the pandemic – either exacerbating or alleviating their hardships. I conclude each subchapter with implications for future research and policy recommendations derived from the discussion of the respective thesis.

4.1. Thesis I. Those in the most vulnerable situations may not be the most vulnerable to disasters

The COVID-19 pandemic reshaped public discussion about who is vulnerable. Several studies have since uncovered groups unexpectedly hard hit by the burden of this prolonged crisis, such as children (Wolf & Schmitz, 2024) or college students (Buizza et al., 2022). Similarly, the experiences of marginalised groups (**Studies I–III**) revealed a thought-provoking diversity in the severity and nature of their challenges. Care providers identified four key characteristics of the clients who suffered the most: being a migrant, facing mental health challenges or psychological fragility, seeking assistance for the first time, and having low communication abilities (**Studies I** and **III**). Among these populations, migrant communities have received growing recognition in research due to being disproportionately affected by the pandemic (e.g., (Barbu et al., 2021; European Commission et al., 2022; Tagliacozzo et al., 2021). They were often denied access to services and emergency assistance that was available for residents, exposing stark inequities in receiving essential state-administered support (**Study III**). The prevalence of misinformation was notably high among migrant communities across Europe, with a strong correlation between migrant status and COVID-19 scepticism (**Study II** and **III**). These findings reinforce the call for multilingual intercultural communication strategies and the involvement of trusted mediators to effectively engage these populations (Federici, 2022a; Mendez et al., 2020). Immigrants and homeless individuals were also severely stigmatised as "spreaders of the virus" (**Studies I–III**), contributing to "othering" of these groups, dehumanising them and reinforcing their marginalisation and invisibility. This dynamic, frequently observed in times of disasters, perpetuates cycles of discrimination, exclusion, and increased vulnerability (Chapados et al., 2023; Dionne & Turkmen, 2020; Kumar & and Nayar, 2020; Vickery, 2018).

The COVID-19 pandemic has profoundly strained the psychological well-being of people worldwide (Elbogen et al., 2021; Salari et al., 2020; WHO, 2022). While marginalised groups have been found to be disproportionally impacted also by mental health issues, there remains a lack of studies specifically targeting these population (Camara et al., 2023). One particular distress that emerged from **Study I** was falling into a vulnerable situation for the first time, which paralleled the broader surge in demand for food aid and other services (**Study I**, Barbu et al., 2021, World Bank 2020, Radondo et al., 2020). Social workers observed that new clientele consisted primarily of "middle-class" individuals and families who managed without external help prior to the pandemic (Bastaits et al., 2022, **Study I**).

The changes in European labour market disproportionally affected the young people, temporary or part-time employees, and those with low education levels (Ando et al., 2022). In particular, lower educated women with young children were at higher risk of losing their job (Eurofond, 2023), but even those people who did not face unemployment, might have lost part of their income as the average working hours decreased by 14,3% in the time of strictest containment measures (European Central Bank, 2020). Having to turn to social services for the first time was emotionally distressing and caused feelings of shame and helplessness.

Another subset of clients who suffered severely during the pandemic were individuals with preexisting mental health issues. **Study I** revealed their suffering from heightened anxiety, with reports of panic and paranoia, corroborating previous research (Camara et al., 2023; Gosselin et al., 2021). For many, the pandemic and associated restrictions were difficult to comprehend. Struggling with fear, confusion and loneliness, they relied heavily on care organisations for comfort and reassurance. Social workers also highlighted their worry about individuals with very low communication abilities, both in articulating their need for assistance and in being reached by social support providers. A lack of digital skills or devices, internet inaccessibility and language barriers prevented many vulnerable individuals from connecting with care organisations. But the concern was that the most fragile among them – for example, those with the mental health challenges previously outlined, fear of deportation due to undocumented status, difficulties with reading, writing or speaking, severe addictions, or other obstacles – may have been entirely excluded from receiving any help (**Study I**, Bastaits et al., 2022).

Individuals experiencing homelessness are rightly recognised as among the groups hardest impacted by the pandemic and other disasters (Vickery, 2018; Redondo-Sama et al, 2020,), with many of the disproportional challenges they and other marginalised groups faced explored in **Studies I–III.** Yet our research also reveals their resilience and capacity to cope in long-term crisis, as homeless individuals unexpectedly reported the lowest level of negative mental and material consequences in the survey. This may be related to their familiarity to ordeals and already precarious living conditions, where daily survival needs overshadow concerns about the pandemic, as noted by Allaria (2020). Previous traumas (e.g., escaping war zones) and current coping struggles can make the pandemic feel like just another challenge. Echoing the survey findings, social workers described their homeless clients as enduring and accustomed to hardship. They were cooperative and adapted to changes in care organisations' regulations with patience (**Study I, Study III**, Redondo-Sama et al., 2020).

Although clients living in their own homes may seem less marginalised and existing studies indicate the shielding benefits of home environment (Morris 2020; Tsai & Wilson 2020), the survey revealed that they felt the pandemic's impact most strongly in comparison of three different types of living arrangement. Isolated at home when day centres and their services shut down, they experienced loneliness and fear of the disease. By contrast, residing in care organisations' facilities, in the presence of staff and their support was described as offering feelings of being safe and protected. **(Study I, Study III)**

Policy recommendations

- *Governments and disaster management authorities should establish mechanisms to identify and respond to those falling into vulnerable situations for the first time, including partnerships with care organisations to monitor and reach out to new users of their services.*
- *Anti-discrimination measures and proactive awareness-raising are crucial to preventing the discrimination and stigmatisation of marginalised groups in future disaster.*
- *Mental health support should be integrated into all phases of disaster response, with particular attention to individuals with pre-existing conditions and those distressed by disruptions caused by the disaster.*

Implications for future research

- *The experiences of those most marginalised who are entirely outside the reach of the governmental or non-governmental support systems remain under-researched and warrant further investigation.*
- *Future studies focusing on "new clients" of care organisations can deepen understanding of what it means to fall into vulnerability for the first time. Their experiences can help refine disaster response strategies and improve support systems.*

4.2. Thesis II. Official crisis information that was inconsiderate of the target groups' needs failed to reach, be understood, and acted upon by marginalised groups

World Health Organisation underscores the importance of risk communication as a cornerstone of pandemic management, enabling individuals to make informed decisions to mitigate hazards, and adopt appropriate protective measures (WHO, 2017). In parallel, unmet communication needs aggravate vulnerability of those already living in marginalised conditions (Federici, 2022b). Findings across all studies of this dissertation consistently revealed the significant exclusion of marginalised groups from public pandemic information, as well as the alarming prevalence of misinformation among these populations. The high levels of COVID-19 scepticism observed among them were linked to low trust in government information (**Study II**). These findings reveal a critical shortfall in official pandemic communication, both in its failure to physically and cognitively reach marginalised groups, and in its inability to foster trust, which ultimately compounded their vulnerability. Despite the increasing recognition of these communication dimensions as prerequisites for effective and equitable disaster management in international policies and research (WHO, 2017; Sendai 2015, Ciribuco & Federici, 2024), the pandemic response has fallen short of these expectations.

Studies I–III demonstrate the manifestation of all communication-related drivers of vulnerability in marginalised groups as they lacked access to information, struggled to understand and were limited in their ability to react upon it (Hansson et al., 2020). Simultaneously, a wide range of false narratives took hold among marginalised groups. In line with typology by Hansson and colleagues (Hansson et al., 2021), misbeliefs among them advocated the adoption of false protection methods against the virus, distorted understanding of its transmission mechanisms, minimised the perceived risks of the pandemic, and discouraged adherence to official crisis measures. The latter became especially pronounced regarding vaccination. While patterns of information sourcing contributed to how marginalised groups navigated the pandemic information maze (as reflected in earlier research, e.g., Entradas, 2021; Rothmund et al., 2020; Wang et al., 2021), care organisations and their staff emerged as essential in bridging the communication gap between public authorities and those excluded from mainstream crisis communication channels. Most in need of their intervention were individuals in the greatest distress – those affected by past traumas, current struggles, or addictions that have pushed them into seclusion, in many cases disinterested or even reluctant to receive information (**Study I**).

Studies I–III uncovered that migrant populations exhibited higher levels of COVID-19 scepticism and were more susceptible to misinformation. Not receiving official information in the language they speak, they often turned to (social) media from their country of origin. With the growing number of immigrants in Europe, this concern is increasingly being addressed by interdisciplinary research, which advocates combining translation, interpretation, and mediation approaches to develop multilingual and intercultural communication practices (Federici, 2022a; Ciribuco & Federici, 2024). Overcoming linguistic, but also cultural and other contextual barriers requires more than merely "targeting" communities with instructions, as this approach can lead to confusion, resentment, and rejection. This applies especially to crisis information that requires action – it must be actively received and trusted to be effective (Blumczynski & Wilson, 2023). Achieving trust and relevance requires awareness of socioeconomic differences, religion, education, age, and other community characteristics even when the same language is spoken. This, in turn, necessitates the involvement of local stakeholders, authorities, and civil society organisations (Mendez et al., 2020; Gosselin et al., 2021; Hannes et al., 2024). Deficiencies in such inclusion were the main culprit in the failure to reach marginalised groups through communication during the pandemic (**Studies I–III**).

As one form of harmful information behaviour that can exacerbate vulnerabilities during crisis, Hansson et al. (2021) point to targeting of alleged virus spreaders through harassment and hate speech. The pandemic brought forth frequent expressions of negative societal attitudes towards homeless individuals and migrants (**Studies I, III**, Arora et al., 2022; Hennebry & H, 2020; Mukumbang, 2021). However, it was the governmental legislations that not only deprived these groups of equal access to social services but also, in several countries, introduced legal measures that effectively penalised homelessness. In contrast, the "I would like to stay at home" campaign, led by a non-governmental organisation in Italy, offers a notable example of successful communication (**Study I**). These lessons from the pandemic call for a broader reflection on societal values and on who bears responsibility for shaping and upholding them. In particular, consideration should be given to the role of public institutions and official communication in influencing societal responses that either reinforce or challenge existing structures of marginalisation.

Policy recommendations

- *Official crisis communication must be tailored to account for language, digital, and cognitive accessibility barriers. This includes engaging trusted intermediaries to reach migrant communities and those with limited communication abilities.*
- *Risk and crisis communication planning should draw on the expertise held by representatives of vulnerable populations to ensure that information is accessible and understandable to all members of society.*
- *Establishing effective communication networks with care organisations is essential, as misinformation or information gaps among social workers can compromise the safety and well-being of their clients.*

Implications for future research

- *Future research should investigate information consumption habits of marginalised groups to inform more effective messaging.*

4.3. Thesis III. Decision-makers' lack of awareness caused additional suffering to vulnerable groups

Previous crises have consistently demonstrated the unequal consequences to marginalised groups already burdened by poverty, impairments or social inequality (Kosanic et al., 2022; Morris, 2020; Roth, 2018). Anchored in the longstanding static conceptualisation of social vulnerability, their disproportionate hardships are typically framed as stemming from limited capacities, abilities or resources within these groups, reinforcing the image of vulnerability as "weakness" of certain populations (Chmutina et al., 2024). However, **Studies I–III** provide compelling evidence of how deficiencies in disaster management and institutional support exacerbated the challenges faced by marginalised populations during the pandemic. At the core of these shortcomings was often limited awareness by governments and public authorities of marginalised groups and organisations supporting them. Social isolation rules mandated by authorities forced the closure of core services, such as food distribution and hygiene facilities, from the day one of the pandemic, without offering alternatives for people whose ability to cope depended on this assistance. When staying on the streets was banned, initially no housing was provided to accommodate the affected. As pointed out by several social workers, these failures could have had life-threatening consequences had the pandemic begun during winter.

Such an oversight of people's needs also has a detrimental impact on trust in governments and public institutions, ultimately undermining subsequent disaster management efforts. Building trust is a continuous process that "depends on ongoing signs of good will, and any indication of ill will destroys trust irreparably" (Blumczynski & Wilson, 2022, p. 5). One moment when this breakdown became visible was the resentment and anger social workers observed among clients suddenly left outside the closed doors of day centres and soup kitchens (**Study I**). Trust emerges as a central factor in the shaping of vulnerability, running as a consistent thread throughout the dissertation.

One of the key responsibilities of public support structures is maintaining the functionality and accessibility of essential social services. The pandemic prompted large-scale transformation towards digitalisation in both. **Studies I–III** provide insight into reasons why giving assistance from distance does not align with the nature of social care. Without meeting in person, it is difficult to offer emotional support, that is particularly needed in anxious times of disasters (Marquina-Marquez et al., 2022). As elaborated in Thesis I, clients with limited communication abilities, including a lack of digital skill or access to technology, were among those social workers identified as having suffered the most during the pandemic. However, even when the digital contact is established, the absence of nonverbal communication leaves those who cannot express their feelings online – whether due to being in an abusive relationship, feeling modest or fearful, or having a more private personality – without the assistance they need. (**Studies I, III**, Bastaits et al., 2022; Marquina-Márquez et al., 2024; Newcomb & and Venning, 2024).

In previous crises, groups with different types of vulnerabilities have at times received unequal support or attention from disaster managers (Hallegatte et al. 2020). These discrepancies might stem from inconsistencies in the awareness of specific needs, but they could also reflect the prioritisation of particular vulnerabilities or societal perceptions on marginalised groups, as Chmutova et al. (2024, p. 8) argue "our hearing relates to and often reinforces social prejudices". Similarly, during the pandemic, only certain support needs were publicly advocated. For instance, calls were made to provide digital devices to children for distance learning, but similar assistance was not extended to socioeconomically deprived individuals to facilitate access to social services (**Study I**). **Study III** further uncovered an example of unequal consideration of individuals with sensory disabilities: while sign language interpretation was swiftly incorporated into official pandemic briefings in television, virus-testing services remaining inaccessible for people with visual impairments even during the second wave of the pandemic. A European survey of 286 practitioners and researchers indicated that disaster managers recognise the relevance of vulnerability considerations, as 86% agreed that "the most vulnerable should be treated or rescued first" (Fekete & Rufat, 2023, p. 8). To bridge this research gap highlighted by Fekete & Rufat (2023), novel approaches to vulnerability assessment are emerging (see, e.g., Orru et al., 2022b; 2025).

The initial official response from public support structures not only overlooked the needs of marginalised groups but also lacked an understanding of the specificities of care organisations. Disregarding these institutions when issuing pandemic guidelines, and later providing confusing and ill-suited directions, undermined efforts to support marginalised groups and to safeguard clients, volunteers, and staff (**Studies I, III**, Redondo-Sama et al., 2020). However, as the pandemic persisted, it allowed space for improvements to emerge. Funding, provision of personal protective equipment and additional facilities to accommodate people experiencing homelessness were main forms of stepping up by public authorities. After the lockdown regulations were lifted, many temporarily sheltered people had to return to the streets – an outcome that invites reflection on the treatment of vulnerable populations during the transition out of crisis measures. (**Study III**)

All of the above testifies to the urgency of better integrating the social sector into disaster management systems – a core conclusion of **Study III**. Although acknowledged by international policy documents (UNDRR, 2024; United Nations, 2015) and research (Blake et al., 2017; Frapaise et al., 2024), there is still a vast gap between the theoretical understanding of inclusive disaster management and implementing these principles and ideas into practice (European University Institute & Vitantonio, 2023). The lack of considering the immediate needs of most marginalised groups is one of the key barriers to inclusive and socially just disaster planning (Frapaise et al., 2024). Moreover, inclusive and equity-based decisions in disaster management are also generally perceived as more legitimate (Lenz, 2024). Bringing representatives of marginalised groups behind the table of decision makers requires novel ways of working and routines to be developed and established. This is a process demanding mutual effort and also a shift in mindset of stakeholders in disaster management to achieve meaningful engagement from of all parties.

Policy recommendations

- *Governments need to develop frameworks to build inclusive disaster risk reduction strategies that are grounded in ethical principles and address issues of equity and social justice.*
- *Social services should be recognised as an equal stakeholder in disaster risk reduction, with meaningful engagement of representatives of marginalised populations, care organisations, and frontline workers. Principles of inclusion need to be integrated into all levels and phases of disaster management.*
- *Public officials, disaster management authorities, and local governments require support and training to develop more inclusive disaster management practices.*

Implications for future research

- *Practical implementation of inclusive disaster risk reduction continues to be challenging. Future research can support identification of key barriers and inform development of relevant practices.*
- *Future research should identify ways to strengthen the capability of decision-makers within public support structures to recognise and respond to the evolving and diverse needs and capacities of different population groups, including those often overlooked.*

4.4. Thesis IV. Care organisations serve as key pillars of resilience for marginalised populations

In my view, one notable insight of this thesis lies in drawing attention to the critical, yet often invisible role of care organisations and their staff in building societal resilience. Beyond providing essential social support to the most vulnerable, these organisations hold an under-recognised potential to bridge inclusivity gap in disaster management systems and mediate crisis communication with hard-to reach populations. However, their input cannot be viewed as panacea and considering their high influence on those in the fragile situation, attention has to be paid to supporting care organisations not only with funding and resources, but also with guidance and up-to-date crisis communication.

Studies I–III underscored the significance of care organisations' role in the coping of marginalised groups during the pandemic (European Commission et al., 2022; Gillibrand et al., 2024; Miller & Grise-Owens, 2022; Redondo-Sama et al., 2020). Many of the care organisations initiated necessary alterations to their services and helped clients to navigate in pandemic circumstances, while also adapting to new ways of working and taking additional tasks (Gillibrand et al., 2024; Marquina-Márquez et al., 2024; Redondo-Sama et al., 2020). Yet, what Amadasun (2020, p. 753) described six months into the pandemic as "deafening silence of the (social work) profession in the global discourse of the pandemic" has continued to leave care organisations and their staff often feeling undervalued as "invisible frontline workers" (Gillibrand et al., 2024; Marquina-Márquez et al., 2024; Miller & Grise-Owens, 2022). I find this lack of recognition to be rooted in the continued invisibility and exclusion of marginalised groups, as discussed in research (Mendez et al., 2020; Shelag & Blanchard, 2022) and evidenced throughout this dissertation.

Exploration of care organisations' resilience in **Study I** identified organisational culture and the personal qualities of staff and managers as pivotal in responding to the needs of their clients. While acknowledging practical hindrances such as staff shortages, lack of resources, and inadequate infrastructure; the commitment, shared values, creativity and adaptability of personnel formed the foundation of care organisations' ability to provide social assistance under difficult conditions and lack of official guidelines. Social workers exhibit strong sense of mission and professional identity of caring for those in need; finding strength from gratitude and appreciation from their clients and sense of contribution (**Study I**, Dima & Simon, 2024; Gillibrand et al., 2024; Marquina-Márquez et al., 2024; Redondo-Sama et al., 2020). However, maintaining social services during the pandemic may have come "at cost for social workers" (Miller & Grise-Owens, 2022). My research echoes concerns about heavy workloads leading to emotional and physical exhaustion, while psychological support was lacking (Amadasun, 2020; Marquina-Márquez et al., 2024; Miller & Grise-Owens, 2022; Newcomb & and Venning, 2024). Although the best ways to protect help providers from mental strain are not yet fully understood, Fekete (2021) found that during the flood operations, helpers with the most training experienced the least psychological strain, while unprepared volunteers experienced the most. Another challenge in regard to staff was them often belonging to risk groups of the COVID-19 due to their age. As a source of support for future crises, care organisation expect maintaining collaborative networks established during the pandemic, both among themselves and with communities and public institutions, as well as securing funding for continued support (**Study I**, Gillibrand et al., 2024; Marquina-Márquez et al., 2024).

The findings of this dissertation underscore that the role of day centres, soup kitchens, shelters and other support providers deserves greater emphasis. Staff in care organisations not only possess the knowledge and experiences to mediate official crisis information to their diverse clientele but also hold the so essential trust required to reach these populations and foster behavioural change (Parkes et al., 2021; **Studies I–III**). The prominence attributed to social workers as a source of crisis information by individuals living on the streets (**Study II**) highlights care organisations' potential to make use of what Blumczynsky (Blumczynski, 2016, p. 145) describes "we often trust those who are trusted by those we trust ". Seen through this lens of trust transferability, the role of social workers extends beyond information-sharing to include trust mediation. During the pandemic, trust of marginalised populations and the experience gained from long-term relationships with their clients equipped social workers to act as intermediaries between the authorities and the individuals in vulnerable situation. They took upon them the demanding and resource-intensive effort of reaching marginalised groups with official pandemic information, pivotal to their coping in the pandemic (top-down mediation). Indeed, care organisations possess the understanding of the community to facilitate conveyance of crisis messages (Amadasun, 2020; Mendez et al., 2020). As another vital line of intervention (bottom-up mediation), care organisations advocated for social inclusion, urging governments, disaster management authorities, and the public to consider the needs of their clients (**Studies I**, **III**; Dima & Simon, 2024; Okafor, 2021), "demanding social protection for society's marginal population" (Amadasun, 2020, p. 755). My research revealed that, even in light of the arguments presented above, care organisations were rarely included in pandemic decision-making processes, and their capacities as trusted mediators remained untapped by the authorities.

Research consistently shows that social capital mitigates vulnerability during crises (Morsut et al., 2022b). Having strong bonds with close-knit groups, bridging connection with other societal groups and/or trust in government actors has been associated with protective effect on mental health (Smiley et al., 2022; Tsuchiya et al., 2017), adequate risk perception (Dryhurst et al., 2020; Entradas, 2021) and better compliance with pandemic regulations (Bargain & Aminjonov, 2020; Blair et al., 2017). The findings of this dissertation confirm the significant role of social capital. To begin with, higher levels of trust in government information emerged as a key factor in countering COVID-19 scepticism – crucial outcome, given scepticism's link to reduced adoption of protective behaviours and, consequently, an increased risk of infection (**Study II**). However, individuals from economically marginalised groups often possess lower levels of social capital (Tierney, 2006; Uphoff et al., 2021) and it can have a "dark side", particularly when compounded by social exclusion and structural inequalities (Schobert et al., 2023b; Vickery, 2018). Together with Schobert and colleagues (2023b), we proposed a heuristic framework to assess not only the availability of social capital but also its accessibility and activatability in times of disaster or recovery – referred to as the "3 A's" of social capital. This framework (cf. Schobert et al., 2023b) conceptualises the situational nature of social capital and the factors influencing individuals' ability to leverage it in a disaster. In brief, it asks: Is a person part of certain social networks (availability), can they reach them (accessibility), and can they benefit from them (activatability)? The unprecedented global social isolation mandate during the pandemic posed several challenges in this regard (**Study I**; Kovacs et al., 2021; Sayin Kasar & Karaman, 2021). **Studies I–III** document different outcomes of the pandemic to marginalised groups depending on their living arrangements. Broadly speaking, these conditions can be linked to different levels of social capital available to them. People living in their home and on the streets faced abrupt changes in both accessibility and activatability of their support networks. Clients in long-term care facilities benefitted from most stable source of social capital – ongoing, close contact with care organisation and social workers. However, here too, social capital can manifest its adverse side when care organisations lack adequate support from by public institutions. **Study III** uncovered instances when social workers themselves were influenced by misinformation. This poses a significant risk and can lead to exacerbated vulnerability and further marginalisation of vulnerable individuals who rely on social workers as their primary or even sole source of information.

Policy recommendations

- *Social work education should include disaster risk reduction competencies in its curriculum.*
- *Social workers and care organisations need to participate in trainings and exercises to build their skills and preparedness needed for effective disaster response.*
- *A shift towards more inclusive governance principles is needed to move beyond the longstanding exclusion of care organisations and the marginalised populations they advocate for.*

Implications for future research

- *Future research should explore effective methods for integrating disaster risk reduction competencies into social work education.*
- *There is a continued need for research into stigmatisation, marginalisation, and social inequality, and their role in shaping vulnerability during crises.*

4.5. Thesis V. Marginalised groups in Europe faced a double burden during the pandemic

Amidst the global pandemic that disrupted lives and strained systems worldwide, marginalised groups endured a dual hardship – greater susceptibility to the virus, coupled with the repercussions of a crisis response that neglected their needs. These challenges were further compounded by frequent societal stigmatisation (**Studies I–III**).

Infection rates, hospitalisation and mortality were higher among migrants and those with lower socioeconomic status compared to the general population (Leifheit et al., 2021; Niedzwiedz et al., 2020), contrasting these groups not perceiving COVID-19 as a personal threat (**Study II**). Furthermore, the pandemic's secondary health effects – health issues unrelated to the virus but induced by the crisis context, predominantly stemming from limited access to healthcare – are estimated to have been even more severe for many vulnerable individuals (European Commission et al., 2022). The disproportionate impact of the pandemic on health and well-being keeps extending beyond its immediate aftermath, as a recent WHO Europe report indicated that the socioeconomic gap in well-being has since expanded by 50%, with individuals on low income now three times more likely to report poor well-being compared to those in higher income brackets (WHO Europe, 2023).

The compounded burden of multiple vulnerabilities is gaining growing attention in scientific literature, particularly in the context of the COVID-19 pandemic (e.g., Brown et al., 2021; Olson et al., 2023; Vickery, 2018). To date, the primary focus has been on the accumulation of individual coping capacities such as a person's physical and mental condition, skills, socioeconomic status, and other characteristics stemming from their unique combination of capabilities and circumstances. For example, migrant status, when intertwined with material deprivation, mental health issues, overcrowded living conditions, pandemic-affected employment, and/or lack of communication skills, has been highlighted as an alarming intersectional amplification of pandemic vulnerability **(Studies I–III**; Mendez et al., 2020; Sanfelici, 2021; Vickery, 2018). Similarly, the precarity of marginalised women and predominantly female pandemic's key workforce increased as gender and socioeconomic inequalities converged (Brown et al., 2021; Olson et al., 2023). In this thesis, I broadened the analytical lens by incorporating the impact of political structures alongside the availability of social support through both private relations and institutional care to explore how social vulnerability is shaped during disasters.

Kuran et al. (2020) describe vulnerability from an intersectional perspective as a snapshot of various oppressive impacts affecting a particular group in a specific situation. To capture the mechanisms that shaped the vulnerability of marginalised groups during the pandemic, I applied the social vulnerability framework by Orru et al. (2022a) to the findings of **Studies I–III**. As the pandemic did not disrupt the functioning of core technologies and infrastructure, this part of the framework is not applicable in the present context. Consistent with existing knowledge, marginalised groups were burdened by some individual factors of vulnerability even before the pandemic. Among these, the most influential amidst this crisis were pointed out in Thesis 1 and discussed earlier in this chapter. As compensators of these vulnerabilities and sources of support, care organisations played a central role, representing the societal support network spectrum of the vulnerability framework (Thesis IV). Faced with high demand and workload, their capacities were stretched in efforts to sustain essential social services.

This dissertation brings to light a previously underexplored aspect of disaster vulnerability: how the failure of public support structures to tailor crisis measures and communication to the needs of a diverse society exacerbated the existing vulnerabilities and shaped the experiences of marginalised groups during the pandemic (Thesis II and III). This offers a novel outlook on the mechanisms driving individuals' vulnerability in crises and aligns with the dynamic conceptualisation of social vulnerability. The systematic adaptation of social vulnerability framework (Orru et al., 2022a) provides a more comprehensive understanding of the range of factors that make people susceptible to harm in a given disaster, as well as the interactions between these factors, which may either compensate or aggravate each-other. During the pandemic, marginalised groups were affected by a combination of their individual capacities; availability, accessibility and activatability of social support; and the (in)ability of disaster management and governmental institutions to consider their needs and support care organisations' work.

This application of the social vulnerability framework to a specific population group experiencing a particular disaster can serve as an example of identifying vulnerability factors and assessing their interplay – how they may intertwine, accumulate, compensate for or amplify one another. Furthermore, utilising future disaster scenarios in a similar manner can facilitate what Orru & Nævestad (2023) describe as the "weaving of safety nets" – the development of preparedness measures aimed at preventing individuals from falling into vulnerable situations. This can be achieved both at a targeted level, by directly addressing specific vulnerability factors (e.g., inadequate crisis communication), and at a systemic level, by compensating for weaknesses in one spectrum (e.g., societal support networks) through strengths in another (e.g., public support structures). A deeper understanding of how different groups may be affected in future crises can also expose the social constructs and power structures that perpetuate inequities (Kuran et al., 2020).

In addition, anticipating future drivers of vulnerability can support more accurate forecasting of service and assistance needs. The pandemic demonstrated this need when the demand for food and other social support doubled or even multiplied, challenging the resilience of care organisations (**Study I**), while the economic downturn pushed people from coping independently to becoming some of the most vulnerable clients of care organisations. The fact that these first-time clients could not have been identified as within the scope of my research at its outset – since they were not part of marginalised populations before the pandemic – reinforces the argument that understanding vulnerability is essential for building resilience (Morsut et al., 2022b).

Policy recommendations:

- *Public authorities must take responsibility for initiating and sustaining cooperation with care organisations, ensuring collaboration across all phases of disaster management – preparedness, response, and recovery.*
- *National and municipal risk analysis and planning should incorporate the perspectives and experiences of care organisations and associations representing individuals in vulnerable situation, to support fair representation of their needs.*
- *Governmental crisis funds and stronger institutional alliances with care organisations are needed to be prepared for upholding essential social services and information networks for people in the vulnerable situations.*

Implications for future research

- *Future research on proactive applications of the social vulnerability framework can contribute to anticipating emerging and/or cumulating vulnerabilities in future crises and support efforts to reduce their impact.*
- *Future research is also needed to understand how emerging social, economic, and political stressors may generate new forms of vulnerability, including among groups not traditionally considered at risk.*

CONCLUSION

For me as a researcher, writing this thesis has truly been an encounter with invisible men and women. In collecting their experiences, I have felt sadness, respect, humility, surprise, and at times a quiet sense of vulnerability, as I was reminded of how fragile social stability can be. Alongside positive moments, such as sensing the natural empathy and care in a social worker's voice, feelings of disbelief, shame, and even anger surfaced as I came to grasp the injustices and neglect – from the criminalisation of homelessness to subtle, everyday forms of exclusion, such as services that assume digital literacy. I hope this work contributes to greater awareness – not through pity, but a respectful understanding. I value the nuanced perspective the academic lens has offered, allowing me to systematically capture evidence on the diversity – and inequality – within our societies.

This dissertation explores the experiences of often invisible marginalised groups and examines the factors that shaped these experiences during the COVID-19 pandemic. A survey conducted among clients of soup kitchens, day centres, and shelters adds to the scarce body of empirical data drawn directly from individuals in precarious situations – voices that are rarely captured. Interviews and workshops with managers and staff of these care organisations, along with a colloquium that included wider representation from vulnerable communities, enrich their perspectives and help build a more comprehensive and nuanced understanding of the dynamics shaping vulnerability in a prolonged crisis. The design of our research also allowed us to follow the progression of the pandemic and capture the key developments in the situation over time.

Governments and pandemic decision-makers issued regulations to mitigate spread of the COVID-19 virus without considering the needs and situation of marginalised groups, who were severely impacted by the sudden loss of access to essential services they had previously relied on, and from their social networks and contact with social workers. Care organisations' adaptations restored the distribution of food and some forms of support, but the surge in demand, increased workload, and limited backing from public authorities placed significant strain on their work. Marginalised groups, particularly migrants and homeless individuals faced stigma and negative societal attitudes. Left out of reach of official pandemic information and surrounded by widespread misinformation, these high-risk groups were often sceptical about the seriousness of the virus. Overall, marginalisation and invisibility of these populations increased.

Social workers pointed out four characteristics of their clients who suffered the most during the pandemic – being a migrant or a first-time client, or having low communication abilities or mental health challenges. Taking a closer look at the factors that shaped these experiences, the first two stand out as being closely related to the structural disadvantages these groups faced. Migrant communities were particularly targeted by accusations of spreading the virus and the related stigma and often denied equal access to health care and social services. Moreover, they were generally excluded from pandemic information, as it was not translated into the languages they spoke, and depended on care organisations for assistance in understanding the situation and the measures needed to protect themselves.

Labour market contraction, rising unemployment and reduced working hours hit socioeconomically fragile populations hardest. Those in less secure positions, such as temporary workers (often, again, migrants), low-wage earners, and employed in pandemic-affected industries, had to turn for social services and soup kitchens for the first time. With limited support from public structures, many of the new clients struggled with falling in this vulnerable situation. Social workers described that they stood out from the usual clientele, such as women with children or pensioners who had previously managed without support.

Both individuals with mental health challenges and those with limited communication abilities represent cases of compounded individual vulnerability and are therefore more likely to require additional support from other actors in society. During the pandemic, these members of marginalised communities were in the most fragile situation. As they remained out of the sight of official authorities, care organisations were central to their ability to cope. When facilities were closed, social workers tried to reach them on the streets but expressed concern that some were not able to reach for help at all.

Structural differences in living conditions represented a general distinction that influenced how marginalised groups experienced the pandemic. In all studied countries, vulnerable individuals living under the care of organisations providing long-term accommodation (including night shelters reorganised to 24/7 provision during lockdowns), were the most protected from the impacts of the pandemic. With stable access to housing and food, they also received information and guidance form social workers to help them navigate the situation. Ongoing contact with staff was especially reassuring for those in need of psychological support, and many clients expressed both trust and gratitude towards the personnel. However, self-reported mental and material impacts were even slightly lower among homeless individuals, suggesting a degree of individual resilience to this type of disaster. Although day centres remained closed, the restoration of food distribution and the continuation of some services provided by social workers outdoors may have contributed to a sense of stability. Surprisingly, clients of care organisations living in their own homes were reported by social workers and also self-reported to have experienced the highest negative impacts of the pandemic.

To move beyond the long-standing disconnect between the rhetoric of inclusive disaster management and its limited implementation, I particularly wish to stress the overarching conclusion of this dissertation: care organisations, representatives of individuals in vulnerable situation, and social workers need to be actively involved in all stages and levels of disaster risk reduction. Given the significant scale and widespread societal impact of modern crises, recognising social services as equal actors in disaster management is essential for building more resilient societies.

By adapting the social vulnerability framework developed by Orru et al. (2022b), I was able to conduct a systematic and in-depth analysis of the experiences of marginalised groups during the pandemic and offer a novel perspective on the factors that influenced their coping. This nuanced and multifaceted understanding brings to light hidden drivers that significantly exacerbate vulnerability in a disaster and reveals impacts that might otherwise remain unnoticed.

Existing research on disaster vulnerability primarily focuses on individual factors that compromise individuals’ capacity to withstand hazards, such as limited resources to protect oneself or poor physical health that impairs their resilience. In recent years, there has been growing attention on the intersectional nature of vulnerability and the importance of addressing the root causes of marginalisation, with increasing emphasis on themes related to power structures, social inequities, and social justice (see, e.g., Kuran et al., 2020; Rufat et al., 2020; Uekusa et al., 2025; von Meding & Chmutina, 2023). This dissertation confirms the need to address the heterogeneity of marginalised groups and systematically uncover the socio-structural (and situational) factors shaping their vulnerability. The employed framework offers a balanced approach that provides practical input for policymakers and managers to develop more socially and effective disaster risk reduction systems.

REFERENCES

Abbott, D., & Porter, S. (2013). Environmental hazard and disabled people: From vulnerable to expert to interconnected. Disability & Society, 28(6), 839–852. https://doi.org/10.1080/09687599.2013.802222

Acharya, S. R., Moon, D. H., Chun, J. H., & Shin, Y. C. (2022). COVID-19 and mental health: Anxiety disorders among immigrants due to COVID-19 outbreak in South Korea. International journal of psychiatry in medicine, 57(4), 323–337. https://doi.org/10.1177/00912174211042695

Allaria, C., Loubière, S., Mosnier, E., Monfardini, E., Auquier, P., & Tinland, A. (2021). "Locked down outside": Perception of hazard and health resources in COVID-19 epidemic context among homeless people. SSM – Population Health, 15, 100829. https://doi.org/10.1016/j.ssmph.2021.100829

Allington, D., Duffy, B., Wessely, S., Dhavan, N., & Rubin, J. (2021). Health-protective behaviour, social media usage and conspiracy belief during the COVID-19 public health emergency – CORRIGENDUM. Psychological Medicine, 51(10), 1770–1770. Cambridge Core. https://doi.org/10.1017/S0033291721000593

Alpaslan, C. M., Green, S. E., & Mitroff, I. I. (2009). Corporate Governance in the Context of Crises: Towards a Stakeholder Theory of Crisis Management. Journal of Contingencies and Crisis Management, 17(1), 38–49. https://doi.org/10.1111/j.1468-5973.2009.00555.x

Amadasun, S. (2020). Social work and COVID-19 pandemic: An action call. International Social Work, 63(6), 753–756. https://doi.org/10.1177/0020872820959357

Ando, S.; Balakrishnan, R.; Gruss, B.; Hallaert, J.-J.; Jirasavetakul, La-Bhus F.; Kirabaeva, K.; Klein, N.; Lariau, A.; Liu, L. Q.; Malacrino, D.; Qu, H.; Solovyeva, A. (2022). *European Labor Markets and the COVID-19 pandemic: Fallout and the Path Ahead*. International Monetary Fund.

Andrulis, D. P., Siddiqui, N. J., & Purtle, J. P. (2011). Integrating Racially and Ethnically Diverse Communities Into Planning for Disasters: The California Experience. Disaster Medicine and Public Health Preparedness, 5(3), 227–234. Cambridge Core. https://doi.org/10.1001/dmp.2011.72

Archibald, J., & Garzone, G. (2014). Conceptualising Linguistic and Cultural Mediation. Language Cultures Mediations, 1(1–2), 7–17.

Arora, S., Bø, B., Tjoflåt, I., & Eslen-Ziya, H. (2022). Immigrants in Norway: Resilience, challenges and vulnerabilities in times of COVID-19. Journal of Migration and Health, 5, 100089. https://doi.org/10.1016/j.jmh.2022.100089

Ausín, B., González-Sanguino, C., Castellanos, M. Á., & Muñoz, M. (2021). Gender-related differences in the psychological impact of confinement as a consequence of COVID-19 in Spain. Journal of Gender Studies, 30(1), 29–38. https://doi.org/10.1080/09589236.2020.1799768

Babcicky, P., & Seebauer, S. (2017). The two faces of social capital in private flood mitigation: Opposing effects on risk perception, self-efficacy and coping capacity. Journal of Risk Research, 20(8), 1017–1037. https://doi.org/10.1080/13669877.2016.1147489

Baena-Díez, J. M., Barroso, M., Cordeiro-Coelho, S. I., Díaz, J. L., & Grau, M. (2020). Impact of COVID-19 outbreak by income: Hitting hardest the most deprived. Journal of Public Health, 42(4), 698–703. https://doi.org/10.1093/pubmed/fdaa136

Banks, S., Cai, T., de Jonge, E., Shears, J., Shum, M., Sobočan, A. M., Strom, K., Truell, R., Úriz, M. J., & Weinberg, M. (2020). Practising ethically during COVID-19: Social work challenges and responses. International Social Work, 63(5), 569–583. https://doi.org/10.1177/0020872820949614

Barbu, S., Barranco, S. P., & Silk, R. (2021). The Impact of COVID-19 on Homeless Service Providers and Homeless People. Cityscape, 23(2), 361–380. JSTOR.

Bargain, O., & Aminjonov, U. (2020). Trust and compliance to public health policies in times of COVID-19. Journal of Public Economics, 192, 104316. https://doi.org/10.1016/j.jpubeco.2020.104316

Bastaits, K., Pasteels, I., Massart, M., & Put, B. (2022). The impact of the COVID-19 pandemic on the social work client base. Journal of Comparative Social Work, 17(1), 7–36. https://doi.org/10.31265/jcsw.v17i1.389

Bavel, J. J. V., Baicker, K., Boggio, P. S., Capraro, V., Cichocka, A., Cikara, M., Crockett, M. J., Crum, A. J., Douglas, K. M., Druckman, J. N., Drury, J., Dube, O., Ellemers, N., Finkel, E. J., Fowler, J. H., Gelfand, M., Han, S., Haslam, S. A., Jetten, J., … Willer, R. (2020). Using social and behavioural science to support COVID-19 pandemic response. Nature Human Behaviour, 4(5), 460–471. https://doi.org/10.1038/s41562-020-0884-z

Beck, U. (1999). World risk society. Cambridge, UK: Polity Press.

Beck, U. (2009). Critical theory of world risk society: A cosmopolitan vision. Constellations: An International Journal of Critical & Democratic Theory, 16(1).

Birkmann, J., Cardona, O. D., Carreño, M. L., Barbat, A. H., Pelling, M., Schneiderbauer, S., Kienberger, S., Keiler, M., Alexander, D., Zeil, P., & Welle, T. (2013). Framing vulnerability, risk and societal responses: The MOVE framework. Natural Hazards, 67(2), 193–211. https://doi.org/10.1007/s11069-013-0558-5

Blair, R. A., Morse, B. S., & Tsai, L. L. (2017). Public health and public trust: Survey evidence from the Ebola Virus Disease epidemic in Liberia. Social Science & Medicine, 172, 89–97. https://doi.org/10.1016/j.socscimed.2016.11.016

Blake, D. (2020). Preparedness and Recovery as a Privilege in the Context of Covid-19. esra.nz. http://esra.nz/wp-content/uploads/2020/04/18-Preparedness-and-recovery-in-the-context-of-covid-19.pdf

Bliese, P. B., Wright, K. M., Adler, A. B., Cabrera, O., Castro, C. A., & Hoge, C. W. (2008). Validating the primary care posttraumatic stress disorder screen and the posttraumatic stress disorder checklist with soldiers returning from combat. Journal of consulting and clinical psychology, 76(2), 272–281. https://doi.org/10.1037/0022-006X.76.2.272

Blumczynski, P. (2016). Ubiquitous Translation. London: Routledge.

Blumczynski, P., & Wilson, S. (2022). Are We All in This Together? Routledge. https://www.taylorfrancis.com/chapters/oa-edit/10.4324/9781003267843-1/together-piotr-blumczynski-steven-wilson

Bochner, S. (1981). The Mediating Person: Bridges Between Cultures. G.K. Hall. https://books.google.ee/books?id=4ULYAAAAIAAJ

Boin, A., & 'T Hart, P. (2007). The Crisis Approach. H. Rodríguez, E. L. Quarantelli, & R. R. Dynes (Toim), Handbook of Disaster Research (lk 42–54). Springer New York. https://doi.org/10.1007/978-0-387-32353-4_3

Brown, R., Coventry, L., & Pepper, G. (2021). Information seeking, personal experiences, and their association with COVID-19 risk perceptions: Demographic and occupational inequalities. Journal of Risk Research, 24(3–4), 506–520. https://doi.org/10.1080/13669877.2021.1908403

Bui, A. T., Dungey, M., Nguyen, C. V., & Pham, T. P. (2014). The Impact of Natural Disasters on Household Income, Expenditure, Poverty and Inequality: Evidence from Vietnam. Applied Economics, 46(15), 1751–1766. https://doi.org/10.1080/00036846.2014.884706

Buizza, C., Bazzoli, L., & Ghilardi, A. (2022). Changes in College Students Mental Health and Lifestyle During the COVID-19 Pandemic: A Systematic Review of Longitudinal Studies. Adolescent Research Review, 7(4), 537–550. https://doi.org/10.1007/s40894-022-00192-7

Busch-Geertsema, V., Culhane, D., & Fitzpatrick, S. (2016). Developing a global framework for conceptualising and measuring homelessness. Habitat International, 55, 124–132. https://doi.org/10.1016/j.habitatint.2016.03.004

Camara, C., Surkan, P. J., Van Der Waerden, J., Tortelli, A., Downes, N., Vuillermoz, C., & Melchior, M. (2023). COVID-19-related mental health difficulties among marginalised populations: A literature review. Cambridge Prisms: Global Mental Health, 10, e2. Cambridge Core. https://doi.org/10.1017/gmh.2022.56

Chapados, S., Roebuck, B. S., Macdonald, S.-A., Dej, E., Hust, C., & McGlinchey, D. (2023). Homelessness, COVID-19, and discourses of contagion. SSM - Qualitative Research in Health, 3, 100276. https://doi.org/10.1016/j.ssmqr.2023.100276

Chayinska, M., Uluğ, Ö. M., Ayanian, A. H., Gratzel, J. C., Brik, T., Kende, A., & McGarty, C. (2021). Coronavirus conspiracy beliefs and distrust of science predict risky public health behaviours through optimistically biased risk perceptions in Ukraine, Turkey, and Germany. Group Processes and Intergroup Relations, 1–19. https://doi.org/10.1177/1368430220978278

Chmutina, K., Amir, S., Fortun, K., Henderson, J., Hernandez, R., Irwin, J., Knowles, S. G., Remes, J. A. C., & Sanders, M. (2024). Journal of Disaster Studies: An Inaugural Discussion. Journal of Disaster Studies, 1(1), 5–22.

Chmutina, K., von Meding, J., Williams, D. A., Remes, J., Cheek, W., & Alburo-Cañete, K. Z. (2025). Solidarity in disaster scholarship. Disasters, 49(1), e12657. https://doi.org/10.1111/disa.12657

Choolayil, A. C., & Putran, L. (2021). The COVID-19 Pandemic and Human Dignity: The Case of Migrant Labourers in India. Journal of Human Rights and Social Work, 6(3), 225–236. https://doi.org/10.1007/s41134-021-00185-x

Ciribuco, A., & and Federici, F. M. (2024). The experience of intercultural mediators in the Italian COVID-19 vaccination campaign. Language and Intercultural Communication, 24(3), 180–194. https://doi.org/10.1080/14708477.2024.2337382

Clark-Ginsberg, A., & Petrun Sayers, E. L. (2020). Communication missteps during COVID-19 hurt those already most at risk. Journal of Contingencies and Crisis Management, 28(4), 482–484. https://doi.org/10.1111/1468-5973.12304

Collins, H., & Evans, R. (2007). Rethinking Expertise. The University of Chicago Press.

Craig, L., Craig, N., Calgaro, E., Dominey-Howes, D., & Johnson, K. (2019). Chapter 13. People with disabilities: Becoming agents of change in Disaster Risk Reduction. F. I. Rivera (Toim), Emerging Voices in Natural Hazards Research (lk 327–356). Butterworth-Heinemann. https://doi.org/10.1016/B978-0-12-815821-0.00020-5

Crawford, C. A. (2021). Studying social workers' roles in natural disasters during a global pandemic: What can we learn? Qualitative Social Work, 20(1–2), 456–462. https://doi.org/10.1177/1473325020973449

de Ruiter, M. C., & van Loon, A. F. (2022). The challenges of dynamic vulnerability and how to assess it. iScience, 25(8), 104720. https://doi.org/10.1016/j.isci.2022.104720

Deverell, E., Alvinius, A., & Hede, S. (2019). Horizontal Collaboration in Crisis Management: An Experimental Study of the Duty Officer Function in Three Public Agencies. Risk, Hazards and Crisis in Public Policy, 10(4), 484–508. https://doi.org/10.1002/rhc3.12179

Dima, G., & Simon, M.-C. (2024). Resilient social workers' perspective on their professional work during the COVID-19 pandemic. An interpretative phenomenological analysis. European Journal of Social Work, 1–14. https://doi.org/10.1080/13691457.2024.2417661

Dionne, K. Y., & Turkmen, F. F. (2020). The Politics of Pandemic Othering: Putting COVID-19 in Global and Historical Context. International Organization, 74(S1), E213–E230. Cambridge Core. https://doi.org/10.1017/S0020818320000405

Dominelli, L. (2015). The opportunities and challenges of social work interventions in disaster situations. International Social Work, 58(5), 659–672. https://doi.org/10.1177/0020872815598353

Donovan, A., Morin, J., & Walshe, R. (2023). Interdisciplinary research in hazards and disaster risk. Progress in Environmental Geography, 2(3), 202–222. https://doi.org/10.1177/27539687231183448

Dryhurst, S., Schneider, C. R., Kerr, J., Freeman, A. L. J., Recchia, G., van der Bles, A. M., Spiegelhalter, D., & van der Linden, S. (2020). Risk perceptions of COVID-19 around the world. Journal of Risk Research, 23(7–8), 994–1006. https://doi.org/10.1080/13669877.2020.1758193

ECDC. (2020). COVID-19 situation update for the EU/EEA. European Centre for Disease Prevention and Control. https://www.ecdc.europa.eu/en/cases-2019-ncov-eueea

Elbogen, E. B., Lanier, M., Blakey, S. M., Wagner, H. R., & Tsai, J. (2021). Suicidal ideation and thoughts of self-harm during the COVID-19 pandemic: The role of COVID-19-related stress, social isolation, and financial strain. Depression and Anxiety, 38(7), 739–748. https://doi.org/10.1002/da.23162

Entradas, M. (2021). In Science We Trust: The Effects of Information Sources on COVID-19 Risk Perceptions. Health Communication, 1–9. https://doi.org/10.1080/10410236.2021.1914915

Erman, A., De Vries Robbé, S. A., Fabian Thies, S., Kabir, K., & Maruo, M. (2021). Gender Dimensions of Disaster Risk and Resilience: Existing Evidence. World Bank. http://hdl.handle.net/1920/12777

European Central Bank. (2020). The impact of the COVID-19 pandemic on the euro area labour market. https://www.ecb.europa.eu/press/economic-bulletin/articles/2021/html/ecb.ebart202008_02~bc749d90e7.en.html#toc3

European Commission, Nicaise, I., Van Lancker, A., Verhaeghe, N., Faes, K., & Ruelens, A. (2022). The impact of the COVID-19 crisis on vulnerable groups in the EU – People experiencing homelessness, migrants, Roma, people with disabilities and vulnerable children. Publications Office of the European Union. https://doi.org/10.2767/43194

European University Institute, & Vitantonio, C. (2023). Disaster risk reduction policies in a fast-changing scenario – How to improve ownership and inclusion. European University Institute. https://doi.org/10.2870/9320

Eurostat. (2020). COVID-19 impact on employment income [Website]. Statistics explained. https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20201210-2

Eurostat. (2025). Living conditions in Europe – Poverty and social exclusion [Website]. Statistics explained. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Living_conditions_in_Europe_-_poverty_and_social_exclusion

FEANTSA. (2024). Report: 9th Overview of Housing Exclusion in Europe 2024. https://www.feantsa.org/en/report/2024/09/19/report-9th-overview-of-housing-exclusion-in-europe-2024?bcParent=27

Federici, F. M. (2022a). Translating hazards: Multilingual concerns in risk and emergency communication. The Translator, 28(4), 375–398. https://doi.org/10.1080/13556509.2023.2203998

Federici, F. M. (2022b). Translating Health Risks: Language as a Social Determinant of Health. F. M. Federici (Toim), Language as a Social Determinant of Health: Translating and Interpreting the COVID-19 Pandemic (lk 1–35). Springer International Publishing. https://doi.org/10.1007/978-3-030-87817-7_1

Fekete, A. (2021). Motivation, Satisfaction, and Risks of Operational Forces and Helpers Regarding the 2021 and 2013 Flood Operations in Germany. Sustainability, 13(22). https://doi.org/10.3390/su132212587

Fekete, A., & Rufat, S. (2023). Should everyone in need be treated equally? A European survey of expert judgment on social vulnerability to floods and pandemics to validate multi-hazard vulnerability factors. International Journal of Disaster Risk Reduction, 85, 103527. https://doi.org/10.1016/j.ijdrr.2023.103527

Fisher, A. N., & Ryan, M. K. (2021). Gender inequalities during COVID-19. Group Processes & Intergroup Relations, 24(2), 237–245. https://doi.org/10.1177/1368430220984248

Florin, M.-V., & Linkov, I. (2016). IRGC Resource guide on Resilience. EPFL International Risk Governance Center (IRGC). https://doi.org/10.5075/epfl-irgc-228206

Frapaise, L., Furman, K., Scyphers, S. B., & Kuhl, L. (2024). Mental models for inclusive, socially-just disaster planning: A multi-community study in Saint Martin after Hurricane Irma. Disasters, 48(4), e12627. https://doi.org/10.1111/disa.12627

Fraser, T., Page-Tan, C., & Aldrich, D. P. (2022). Social capital's impact on COVID-19 outcomes at local levels. Scientific Reports, 12(1), 6566. https://doi.org/10.1038/s41598-022-10275-z

Fuller-Rowell, T. E., Nichols, O. I., Doan, S. N., Adler-Baeder, F., & El-Sheikh, M. (2021). Changes in Depressive Symptoms, Physical Symptoms, and Sleep-Wake Problems from before to during the COVID-19 Pandemic among Emerging Adults: Inequalities by Gender, Socioeconomic Position, and Race. Emerging adulthood (Print), 9(5), 492–505. https://doi.org/10.1177/21676968211042111

Gama, A., Alves, J., Costa, D., Laires, P. A., Soares, P., Pedro, A. R., Moniz, M., Solinho, L., Nunes, C., & Dias, S. (2021). Double jeopardy from the COVID-19 pandemic: Risk of exposure and income loss in Portugal. International Journal for Equity in Health, 20(1), 231. https://doi.org/10.1186/s12939-021-01569-1

Gatzweiler, F. W., Baumüller, H., Ladenburger, C., & Braun, J. von. (2011). Marginality: Addressing the root causes of extreme poverty (ZEF Working Paper Series 77). University of Bonn, Center for Development Research (ZEF). http://hdl.handle.net/10419/88402

Gillibrand, S., Watkinson, R., Surgey, M., Issa, B., & Sanders, C. (2024). "We might not have been in hospital, but we were frontline workers in the community": A qualitative study exploring unmet need and local community-based responses for marginalised groups in Greater Manchester during the COVID-19 pandemic. BMC Health Services Research, 24(1), 621. https://doi.org/10.1186/s12913-024-10921-4

Giordani, R. C. F., Giolo, S. R., Zanoni Da Silva, M., & Muhl, C. (2021). Risk perception of COVID-19: Susceptibility and severity perceived by the Brazilian population. Journal of Health Psychology, 13591053211044536.

https://doi.org/10.1177/13591053211044536

Gosselin, A., Melchior, M., Carillon, S., Gubert, F., Ridde, V., Kohou, V., Senne, J.-N.; & MAKASI Study Group. (2021). Deterioration of mental health and insufficient Covid-19 information among disadvantaged immigrants in the greater Paris area. Journal of psychosomatic research, 146, 110504. https://doi.org/10.1016/j.jpsychores.2021.110504

Griego, A. L., Flores, A. B., Collins, T. W., & Grineski, S. E. (2020). Social vulnerability, disaster assistance, and recovery: A population-based study of Hurricane Harvey in Greater Houston, Texas. International Journal of Disaster Risk Reduction, 51, 101766. https://doi.org/10.1016/j.ijdrr.2020.101766

Ha, K.-M. (2016). Inclusion of people with disabilities, their needs and participation, into disaster management: A comparative perspective. Environmental Hazards, 15(1), 1–15. https://doi.org/10.1080/17477891.2015.1090387

Habtamu, K., Desie, Y., Asnake, M., Lera, E. G., & Mequanint, T. (2021). Psychological distress among Ethiopian migrant returnees who were in quarantine in the context of COVID-19: Institution-based cross-sectional study. BMC Psychiatry, 21(1), 424. https://doi.org/10.1186/s12888-021-03429-2

Hallegatte, S., Vogt-Schilb, A., Rozenberg, J., Bangalore, M., & Beaudet, C. (2020). From Poverty to Disaster and Back: A Review of the Literature. Economics of Disasters and Climate Change, 4(1), 223–247. https://doi.org/10.1007/s41885-020-00060-5

Hannes, K.; Thyssen, P.; Bengough, T.; Dawson, S.; Paque, K.; Talboom, S.; Tuand, K.; Vandendriessche, T.; van de Veerdonk, W.; Wopereis, D. (2024) Inclusive Crisis Communication in a Pandemic Context: A Rapid Review. Int. J. Environ. Res. Public Health 2024, 21,1216. https://doi.org/10.3390/ijerph21091216

Hansson, S., Orru, K., Siibak, A., Bäck, A., Krüger, M., Gabel, F., & Morsut, C. (2020). Communication-related vulnerability to disasters: A heuristic framework. International Journal of Disaster Risk Reduction, 51, 101931. https://doi.org/10.1016/j.ijdrr.2020.101931

Hansson, S., Orru, K., Torpan, S., Bäck, A., Kazemekaityte, A., Meyer, S. F., Ludvigsen, J., Savadori, L., Galvagni, A., & Pigrée, A. (2021). COVID-19 information disorder: Six types of harmful information during the pandemic in Europe. Journal of Risk Research, 24(3–4), 380–393. https://doi.org/10.1080/13669877.2020.1871058

Hay, K., & Pascoe, K. M. (2021). Social Workers and Disaster Management: An Aotearoa New Zealand Perspective. The British Journal of Social Work, 51(5), 1531–1550. https://doi.org/10.1093/bjsw/bcab127

He, S., Chen, S., Kong, L., & Liu, W. (2021). Analysis of Risk Perceptions and Related Factors Concerning COVID-19 Epidemic in Chongqing, China. Journal of Community Health, 46(2), 278–285. https://doi.org/10.1007/s10900-020-00870-4

Hennebry, J., & H, K. (2020). Quarantined! Xenophobia and migrant workers during the COVID-19 pandemic. International Organization for Migration (IOM), Geneva.

Holt, E. (2020). COVID-19 lockdown of Roma settlements in Slovakia. The Lancet. Infectious diseases, 20(6), 659. https://doi.org/10.1016/S1473-3099(20)30381-9

Jang, J.-H., & Ha, K.-M. (2021). Inclusion of Children with Disabilities in Disaster Management. Children, 8(7). https://doi.org/10.3390/children8070581

Kosanic, A., Petzold, J., Martín-López, B., & Razanajatovo, M. (2022). An inclusive future: Disabled populations in the context of climate and environmental change. Current Opinion in Environmental Sustainability, 55, 101159. https://doi.org/10.1016/j.cosust.2022.101159

Kovacs, B., Caplan, N., Grob, S., & King, M. (2021). Social Networks and Loneliness During the COVID-19 Pandemic. Socius, 7, 2378023120985254. https://doi.org/10.1177/2378023120985254

Kumar, A., & and Nayar, K. R. (2020). COVID-19: Stigma, discrimination, and the blame game. International Journal of Mental Health, 49(4), 382–384. https://doi.org/10.1080/00207411.2020.1809935

Kuran, C. H. A., Morsut, C., Kruke, B. I., Krüger, M., Segnestam, L., Orru, K., Nævestad, T. O., Airola, M., Keränen, J., Gabel, F., Hansson, S., & Torpan, S. (2020). Vulnerability and vulnerable groups from an intersectionality perspective. International Journal of Disaster Risk Reduction, 50, 101826. https://doi.org/10.1016/j.ijdrr.2020.101826

Küppers, A., & Reiser, M. (2021). Küppers, A. & Reiser, M. (2021): 'It is not worse than a flu' – COVID-19 Scepticism and the Role of Trust and Far-Right Attitudes in Germany. – (SocArXiv). Doi: 10.31235/osf.io/afnmz. – (SocArXiv). https://doi.org/10.31235/osf.io/afnmz.

Latkin, C. A., Dayton, L., Moran, M., Strickland, J. C., & Collins, K. (2021). Behavioral and psychosocial factors associated with COVID-19 skepticism in the United States. Current Psychology. https://doi.org/10.1007/s12144-020-01211-3

Lawrence, M., Homer-Dixon, T., Janzwood, S., Rockstöm, J., Renn, O., & Donges, J. F. (2024). Global polycrisis: The causal mechanisms of crisis entanglement. Global Sustainability, 7, e6. Cambridge Core. https://doi.org/10.1017/sus.2024.1

Leifheit, K. M., Chaisson, L. H., Medina, J. A., Wahbi, R. N., & Shover, C. L. (2021). Elevated Mortality Among People Experiencing Homelessness With COVID-19. Open Forum Infectious Diseases, 8(7). https://doi.org/10.1093/ofid/ofab301

Lenz, A. (2024). Managing crises as if no one is watching? Governance dilemmas from a public perspective. Public Administration, 102(4), 1397–1417. https://doi.org/10.1111/padm.12980

Liddicoat, A. J. (2016). Translation as intercultural mediation: Setting the scene. Perspectives, 24(3), 347–353. https://doi.org/10.1080/0907676X.2015.1125934

Lin, M., Hirschfeld, G., & Margraf, J. (2019). Brief form of the Perceived Social Support Questionnaire (F-SozU K-6): Validation, norms, and cross-cultural measurement invariance in the USA, Germany, Russia, and China. Psychological Assessment, 31(5), 609–621. https://doi.org/10.1037/pas0000686

Marquina-Márquez, A., Gómez-García, R., Lucas-García, J., & Bayón-Calvo, S. (2024). 'We were social ICUs': Qualitative study on the perception of the impact of Covid-19 on social work professionals in Spain. International Social Work, 67(2), 437–451. https://doi.org/10.1177/00208728221138421

Mena, Martinez Pamela P., Mahmud Ayesha S., Marquet Pablo A., Buckee Caroline O., & Santillana Mauricio. (2021). Socioeconomic status determines COVID-19 incidence and related mortality in Santiago, Chile. Science, 372(6545), eabg5298. https://doi.org/10.1126/science.abg5298

Mendez, M., Flores-Haro, G., & Zucker, L. (2020). The (in)visible victims of disaster: Understanding the vulnerability of undocumented Latino/a and indigenous immigrants. Geoforum; journal of physical, human, and regional geosciences, 116, 50–62. https://doi.org/10.1016/j.geoforum.2020.07.007

Mertens, G., Gerritsen, L., Duijndam, S., Salemink, E., & Engelhard, I. M. (2020). Fear of the coronavirus (COVID-19): Predictors in an online study conducted in March 2020. Journal of anxiety disorders, 74, 102258. https://doi.org/10.1016/j.janxdis.2020.102258

Milaney, K., Williams, N., Lockerbie, S. L., Dutton, D. J., & Hyshka, E. (2020). Recognizing and responding to women experiencing homelessness with gendered and trauma-informed care. BMC Public Health, 20(1), 397. https://doi.org/10.1186/s12889-020-8353-1

Miller, J. J., & Grise-Owens, E. (2022). The Impact of COVID-19 on Social Workers: An Assessment of Peritraumatic Distress. Journal of Social Work, 22(3), 674–691. https://doi.org/10.1177/14680173211013243

Morris, S. C. (2020). Disaster Planning for Homeless Populations: Analysis and Recommendations for Communities. Prehospital and Disaster Medicine, 35(3), 322–325. Cambridge Core. https://doi.org/10.1017/S1049023X20000278

Morsut, C., Kuran, C., Kruke, B. I., Nævestad, T.-O., Orru, K., & Hansson, S. (2022a). A critical appraisal of individual social capital in crisis response. Risk, Hazards & Crisis in Public Policy, 13(2), 176–199. https://doi.org/10.1002/rhc3.12236

Morsut, C., Kuran, C., Kruke, B. I., Orru, K., & Hansson, S. (2022b). Linking resilience, vulnerability, social capital and risk awareness for crisis and disaster research. Journal of Contingencies and Crisis Management, 30(2), 137–147. https://doi.org/10.1111/1468-5973.12375

Mukumbang, F. C. (2021). Pervasive systemic drivers underpin COVID-19 vulnerabilities in migrants. International Journal for Equity in Health, 20(1), 146. https://doi.org/10.1186/s12939-021-01487-2

Nævestad, T.-O., Orru, K., Nero, K., Schieffelers, A., Olson, A., Ludvigsen, J., Airola, M., Savadori, L., Krüger, M., Gabel, F., & Hesjevoll, I. (2022). Self-imposed social isolation among clients of social care organisations in the COVID-19 pandemic. International Journal of Disaster Risk Reduction, 82, 103360. https://doi.org/10.1016/j.ijdrr.2022.103360

Neumayer, E., & Plümper, T. (2007). The Gendered Nature of Natural Disasters: The Impact of Catastrophic Events on the Gender Gap in Life Expectancy, 1981–2002. Annals of the Association of American Geographers, 97(3), 551–566. https://doi.org/10.1111/j.1467-8306.2007.00563.x

Newcomb, M., & and Venning, A. (2024). Individual Responsibility and Disconnection: Practitioner Experiences of the First Wave COVID19 Lockdown. Australian Social Work, 77(2), 170–182. https://doi.org/10.1080/0312407X.2022.2160266

Niedzwiedz, C. L., O'Donnell, C. A., Jani, B. D., Demou, E., Ho, F. K., Celis-Morales, C., Nicholl, B. I., Mair, F. S., Welsh, P., Sattar, N., Pell, J. P., & Katikireddi, S. V. (2020). Ethnic and socioeconomic differences in SARS-CoV-2 infection: Prospective cohort study using UK Biobank. BMC Medicine, 18(1), 160. https://doi.org/10.1186/s12916-020-01640-8

Nikku, B. R. (2015). Living through and responding to disasters: Multiple roles for Social Work. Social Work Education, 34(6), 601–606. https://doi.org/10.1080/02615479.2015.1090942

Nikoo, N., Motamed, M., Nikoo, M. A., Strehlau, V., Neilson, E., Saddicha, S., & Krausz, M. (2015). Chronic Physical Health Conditions Among Homeless. Journal of Health Disparities Research and Practice, 8(1), 81–97.

Nisanci, A., Kahraman, R., Alcelik, Y., & Kiris, U. (2020). Working with refugees during COVID-19: Social worker voices from Turkey. International Social Work, 63(5), 685–690. https://doi.org/10.1177/0020872820940032

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic Analysis: Striving to Meet the Trustworthiness Criteria. International Journal of Qualitative Methods, 16(1), 1609406917733847. https://doi.org/10.1177/1609406917733847

OECD. (2020a). Social Expenditure – Aggregated data. https://stats.oecd.org/viewhtml.aspx?datasetcode=SOCX_AGG&lang=en

OECD. (2020b). What is the impact of the COVID-19 pandemic on immigrants and their children? https://www.oecd.org/coronavirus/policy-responses/ what-is-the-impact-of-the-covid-19-pandemic-on-immigrants-and-their-children-e7cbb7de/

OHCHR. (2020). COVID-19 does not discriminate; nor should our response. Office of the United Nations High Commissioner for Human Rights. https://www.ohchr.org/en/press-releases/2020/03/covid-19-does-not-discriminate-nor-should-our-response

Okafor, A. (2021). Role of the social worker in the outbreak of pandemics (A case of COVID-19). Cogent Psychology, 8(1), 1939537. https://doi.org/10.1080/23311908.2021.1939537

Okorley, E. L., & Nkrumah, E. E. (2012). Organisational factors influencing sustainability of local non-governmental organisations. International Journal of Social Economics, 39(5), 330–341. https://doi.org/10.1108/03068291211214190

Olson, A., Naevestad, T.-O., Orru, K., Nero, K., Schieffelers, A., & Frislid Meyer, S. (2023). The impact of the COVID-19 pandemic on socially marginalised women: Material and mental health outcomes. International Journal of Disaster Risk Reduction, 93, 103739. https://doi.org/10.1016/j.ijdrr.2023.103739

Oostlander, S. A., Bournival, V., & O'Sullivan, T. L. (2020). The roles of emergency managers and emergency social services directors to support disaster risk reduction in Canada. International Journal of Disaster Risk Reduction, 51, 101925. https://doi.org/10.1016/j.ijdrr.2020.101925

Orru, K., Hansson, S., Gabel, F., Tammpuu, P., Krüger, M., Savadori, L., Meyer, S. F., Torpan, S., Jukarainen, P., Schieffelers, A., Lovasz, G., & Rhinard, M. (2022a). Approaches to „vulnerability" in eight European disaster management systems. Disasters, 46(3), 742–767. https://doi.org/10.1111/disa.12481

Orru, K., Hansson, S., & Nero, K. (2025). Social vulnerability triage: A dynamic scenario-based system for disaster planning and response. Journal of Risk Research, 1–22. https://doi.org/10.1080/13669877.2025.2522660

Orru, K., Klaos, M., Nero, K., Gabel, F., Hansson, S., & Nævestad, T.-O. (2022b). Imagining and assessing future risks: A dynamic scenario-base social vulnerability analysis framework for disaster planning and response. Journal of Contingencies and Crisis Management, n/a(n/a). https://doi.org/10.1111/1468-5973.12436

Orru, K., & Nævestad, T.-O. (2023). "What makes individuals fall through the safety nets during disasters?" special issue in international journal of disaster risk reduction. International Journal of Disaster Risk Reduction, 96, 103874. https://doi.org/10.1016/j.ijdrr.2023.103874

Orru, K., Schieffelers, A., Naevestad, T.-O., Nero, K., Krüger, M., Gabel, F., Schobert, M., Ludvigsen, J., Airola, M., & Kajganovic, J. (2021). D3.2. Pre-test report. BuildERS project.

Park, E.-S., & Yoon, D. K. (2022). The value of NGOs in disaster management and governance in South Korea and Japan. International Journal of Disaster Risk Reduction, 69, 102739. https://doi.org/10.1016/j.ijdrr.2021.102739

Parkes, T., Carver, H., Masterton, W., Falzon, D., Dumbrell, J., Grant, S., & Wilson, I. (2021). "You know, we can change the services to suit the circumstances of what is happening in the world": A rapid case study of the COVID-19 response across city centre homelessness and health services in Edinburgh, Scotland. Harm Reduction Journal, 18(1), 64. https://doi.org/10.1186/s12954-021-00508-1

Parry, Y., Ankers, M., Sivertsen, N., & Willis, E. (2021). Where is community during COVID-19? The experiences of families living in housing insecurity. Health & Social Care in the Community, 30. https://doi.org/10.1111/hsc.13645

Peek, L., & Guikema, S. (2021). Interdisciplinary Theory, Methods, and Approaches for Hazards and Disaster Research: An Introduction to the Special Issue. Risk Analysis, 41(7), 1047–1058. https://doi.org/10.1111/risa.13777

Pertiwi, P., Llewellyn, G., & Villeneuve, M. (2019). People with disabilities as key actors in community-based disaster risk reduction. Disability & Society, 34(9–10), 1419–1444. https://doi.org/10.1080/09687599.2019.1584092

Pertiwi, P., Llewellyn, G., & Villeneuve, M. (2020). Disability representation in Indonesian disaster risk reduction regulatory frameworks. International Journal of Disaster Risk Reduction, 45, 101454. https://doi.org/10.1016/j.ijdrr.2019.101454

Raju, E., Boyd, E., & Otto, F. (2022). Stop blaming the climate for disasters. Communications Earth & Environment, 3(1), 1. https://doi.org/10.1038/s43247-021-00332-2

Rambaree, K., & Rambaree, B. B. (2021). 'Out of the Frying Pan into the Fire': Mauritian Social Workers' Perspectives on Disaster Governance in Mauritius. The British Journal of Social Work, 51(5), 1585–1604. https://doi.org/10.1093/bjsw/bcab102

Rapeli, M., Cuadra, C., Dahlberg, R., Eydal, G. B., Hvinden, B., Ómarsdóttir, I. L., & Salonen, T. (2018). Local social services in disaster management: Is there a Nordic model? International Journal of Disaster Risk Reduction, 27, 618–624. https://doi.org/10.1016/j.ijdrr.2017.07.018

Redondo-Sama, G., Matulic, V., Munté-Pascual, A., & de Vicente, I. (2020). Social Work during the COVID-19 Crisis: Responding to Urgent Social Needs. Sustainability, 12(20). https://doi.org/10.3390/su12208595

Riou, J., Panczak, R., Althaus, C. L., Junker, C., Perisa, D., Schneider, K., Criscuolo, N. G., Low, N., & Egger, M. (2021). Socioeconomic position and the COVID-19 care cascade from testing to mortality in Switzerland: A population-based analysis. The Lancet Public Health, 6(9), e683–e691. https://doi.org/10.1016/S2468-2667(21)00160-2

Robinson, L., Schulz, J., Ball, C., Chiaraluce, C., Dodel, M., Francis, J., Huang, K.-T., Johnston, E., Khilnani, A., Kleinmann, O., Kwon, K. H., McClain, N., Ng, Y. M. M., Pait, H., Ragnedda, M., Reisdorf, B. C., Ruiu, M. L., Xavier da Silva, C., Trammel, J. M., … Williams, A. A. (2021). Cascading Crises: Society in the Age of COVID-19. American Behavioral Scientist, 00027642211003156. https://doi.org/10.1177/00027642211003156

Rolstadås, A., Tommelein, I., Morten Schiefloe, P., & Ballard, G. (2014). Understanding project success through analysis of project management approach. International Journal of Managing Projects in Business, 7(4), 638–660. https://doi.org/10.1108/IJMPB-09-2013-0048

Romer, D., & Jamieson, K. H. (2020). Conspiracy theories as barriers to controlling the spread of COVID-19 in the U.S. Social Science & Medicine, 263, 113356. https://doi.org/10.1016/j.socscimed.2020.113356

Roth, M. (2018). A resilient community is one that includes and protects everyone. Bulletin of the Atomic Scientists, 74(2), 91–94. https://doi.org/10.1080/00963402.2018.1436808

Rothmund, T., Farkhari, F., Azevedo, F., & Ziemer, C.-T. (2020). Scientific Trust, Risk Assessment, and Conspiracy Beliefs about COVID-19 – Four Patterns of Consensus and Disagreement between Scientific Experts and the German Public. https://doi.org/10.31234/osf.io/4nzuy

Rufat, S., Fekete, A., Armaş, I., Hartmann, T., Kuhlicke, C., Prior, T., Thaler, T., & Wisner, B. (2020). Swimming alone? Why linking flood risk perception and behavior requires more than "it's the individual, stupid". WIREs Water, 7(5), e1462. https://doi.org/10.1002/wat2.1462

Salari, N., Hosseinian-Far, A., Jalali, R., Vaisi-Raygani, A., Rasoulpoor, S., Mohammadi, M., Rasoulpoor, S., & Khaledi-Paveh, B. (2020). Prevalence of stress, anxiety, depression among the general population during the COVID-19 pandemic: A systematic review and meta-analysis. Globalization and Health, 16(1), 57. https://doi.org/10.1186/s12992-020-00589-w

Sanfelici, M. (2021). The Impact of the COVID-19 Crisis on Marginal Migrant Populations in Italy. American Behavioral Scientist, 65(10), 1323–1341. https://doi.org/10.1177/00027642211000413

Sayin Kasar, K., & Karaman, E. (2021). Life in lockdown: Social isolation, loneliness and quality of life in the elderly during the COVID-19 pandemic: A scoping review. Geriatric Nursing, 42(5), 1222–1229. https://doi.org/10.1016/j.gerinurse.2021.03.010

Schein, E. H. (2004). Organizational Culture and Leadership (3. tr). Jossey-Bass.

Schiefloe, P. M. (2011). Mennesker og samfunn, Fagbokforlaget.

Schobert, M., Krüger, M., Gabel, F., Orru, K., Nævestad, T.-O., Olson, A., & Schieffelers, A. (2023a). How do we know vulnerability when we see it? An approach to integrating ethical reflections into empirical disaster research. International Journal of Disaster Risk Reduction, 97, 104049. https://doi.org/10.1016/j.ijdrr.2023.104049

Schobert, M., Orru, K., Gabel, F., Nero, K., Windsheimer, P., Klaos, M., & Nævestad, T.-O. (2023b). The three A's of social capital in crises: Challenges with the availability, accessibility and activatability of social support. International Journal of Disaster Risk Reduction, 92, 103704. https://doi.org/10.1016/j.ijdrr.2023.103704

Schreiter, S., Bermpohl, F., Krausz, M., Leucht, S., R□ssler, W., Schouler-Ocak, M., & Gutwinski, S. (2017). The Prevalence of Mental Illness in Homeless People in Germany. Dtsch Arztebl International, 114(40), 665–672.

Shahin, M. A. H., & Hussien, R. M. (2020). Risk perception regarding the COVID-19 outbreak among the general population: A comparative Middle East survey. Middle East Current Psychiatry, 27(1), 71. https://doi.org/10.1186/s43045-020-00080-7

Shelag, H. A., & Blanchard, K. (2022). Invisible again: Hyper-marginalised groups and disaster data. https://www.drrdynamics.com/publications

Shi, Y., Jang, H. S., Keyes, L., & Dicke, L. (2020). Nonprofit Service Continuity and Responses in the Pandemic: Disruptions, Ambiguity, Innovation, and Challenges. Public Administration Review, 80(5), 874–879. https://doi.org/10.1111/puar.13254

Shiina, A., Niitsu, T., Kobori, O., Idemoto, K., Hashimoto, T., Sasaki, T., Igarashi, Y., Shimizu, E., Nakazato, M., Hashimoto, K., & Iyo, M. (2021). Perception of and anxiety about COVID-19 infection and risk behaviors for spreading infection: An international comparison. Annals of General Psychiatry, 20(1), 13. https://doi.org/10.1186/s12991-021-00334-6

Siegrist, M., Luchsinger, L., & Bearth, A. (2021). The Impact of Trust and Risk Perception on the Acceptance of Measures to Reduce COVID-19 Cases. Risk Analysis, 41(5), 787–800. https://doi.org/10.1111/risa.13675

Siimsen, I., Orru, K., Naevestad, T.-O., Nero, K., Olson, A., Kaal, E., & Meyer, S. F. (2023). Socio-economic outcomes of COVID-19 on the marginalised: Who have taken the hardest hit? International Journal of Disaster Risk Reduction, 93, 103723. https://doi.org/10.1016/j.ijdrr.2023.103723

Sim, H. S., & How, C. H. (2020). Mental health and psychosocial support during healthcare emergencies – COVID-19 pandemic. Singapore medical journal, 61(7), 357–362. https://doi.org/10.11622/smedj.2020103

Sim, T., He, M., & Dominelli, L. (2022). Social Work Core Competencies in Disaster Management Practice: An Integrative Review. Research on Social Work Practice, 32(3), 310–321. https://doi.org/10.1177/10497315211055427

Smiley, K. T., Clay, L. A., Ross, A. D., & Chen, Y.-A. (2022). Multi-scalar and multi-dimensional conceptions of social capital and mental health impacts after disaster: The case of Hurricane Harvey. Disasters, 46(2), 473–498. https://doi.org/10.1111/disa.12474

Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: Assessing the ability to bounce back. International Journal of Behavioral Medicine, 15(3), 194–200. https://doi.org/10.1080/10705500802222972

Szreter, S., & Woolcock, M. (2004). Health by association? Social capital, social theory, and the political economy of public health. International Journal of Epidemiology, 33(4), 650–667. https://doi.org/10.1093/ije/dyh013

Stern, E. K. (2009). Crisis Navigation: Lessons from History for the Crisis Manager in Chief. Governance, 22(2), 189–202. https://doi.org/10.1111/j.1468-0491.2009.01431.x

Stough, L. M., & Kang, D. (2015). The Sendai Framework for Disaster Risk Reduction and Persons with Disabilities. International Journal of Disaster Risk Science, 6(2), 140–149. https://doi.org/10.1007/s13753-015-0051-8

Sundarajaj, A. (2021). Disaster Risk Reduction Policies and Homelessness in New Zealand: Key Informant Perceptions During COVID-19 [Masters Disseratation, Auckland University of Technology]. https://openrepository.aut.ac.nz/handle/10292/14803

Zayas, J., Lacsamana, L., Garcia, F., Garcia, J., & Canete, K. Z. (2017). Build Back Better: Making Inclusion Work in Disaster Recovery in the Aftermath of Typhoon Haiyan.

Tagliacozzo, S., Pisacane ,Lucio, & and Kilkey, M. (2021). The interplay between structural and systemic vulnerability during the COVID-19 pandemic: Migrant agricultural workers in informal settlements in Southern Italy. Journal of Ethnic and Migration Studies, 47(9), 1903–1921. https://doi.org/10.1080/1369183X.2020.1857230

The World Bank. (2020). Food securit y and Covid-19'. Agriculture and Food Brief. 23 August.

Tierney, K. (2006). Social inequality, hazards, and disasters. On risk and disaster: Lessons from Hurricane Katrina, 2(1), 109–128.

Tiller, R. G., Ross, A. D., & Nyman, E. (2022). Social capital and institutional complexity in Svalbard: The case of avalanche disaster management. Disaster Prevention and Management: An International Journal, 31(4), 425–439. https://doi.org/10.1108/DPM-05-2021-0168

Torpan, S., Hansson, S., Rhinard, M., Kazemekaityte, A., Jukarainen, P., Meyer, S. F., Schieffelers, A., Lovasz, G., & Orru, K. (2021). Handling false information in emergency management: A cross-national comparative study of European practices. International Journal of Disaster Risk Reduction, 57, 102151. https://doi.org/10.1016/j.ijdrr.2021.102151

Tsai, J., & Wilson, M. (2020). COVID-19: A potential public health problem for homeless populations. The Lancet Public Health, 5(4), e186–e187.

Tsuchiya, N., Nakaya, N., Nakamura, T., Narita, A., Kogure, M., Aida, J., Tsuji, I., Hozawa, A., & Tomita, H. (2017). Impact of social capital on psychological distress and interaction with house destruction and displacement after the Great East Japan Earthquake of 2011. Psychiatry and Clinical Neurosciences, 71(1), 52–60. https://doi.org/10.1111/pcn.12467

Twigg, J., & Lovell, E. (2018). Disability inclusion and disaster risk reduction: Overcoming barriers to progress [Think tank]. Overseas Development Institute. https://odi.org/en/publications/disability-inclusion-and-disaster-risk-reduction-overcoming-barriers-to-progress/

Uekusa, S. (2019). Methodological Challenges in Social Vulnerability and Resilience Research: Reflections on Studies in the Canterbury and Tohoku Disasters. Social Science Quarterly (Wiley-Blackwell), 100(4), 1404–1419. https://doi.org/10.1111/ssqu.12617

Uekusa, S., Wynyard ,Matthew, & and Matthewman, S. (2025). Reinvestigating social vulnerability from the perspective of Critical Disaster Studies (CDS): Directions, opportunities and challenges in Aotearoa disaster research. Kōtuitui: New Zealand Journal of Social Sciences Online, 20(2), 159–176. https://doi.org/10.1080/1177083X.2024.2305639

UNDRR. (2023a). Fighting inequality for a resilient future. International Day for Disaster Risk Reduction. United Nations Office for Disaster Risk Reduction. https://www.undrr.org/publication/concept-note-international-day-disaster-risk-reduction-2023

UNDRR. (2023b). Global Survey Report on Persons With Disabilities and Disaster. UN Office for Disaster Risk Reduction. https://www.undrr.org/report/2023-gobal-survey-report-on-persons-with-disabilities-and-disasters?

UNDRR. (2024). Advancing disability inclusion in local disaster risk reduction: Analysis and recommendations from the pilot implementation of the disaster resilience Scorecard for cities – Annex for the inclusion of persons with disabilities. https://www.undrr.org/publications/report-disability-inclusion-scorecard-assessment

UNFCCC. (2015). The Paris Agreement. https://unfccc.int/process-and-meetings/the-paris-agreement

United Nations. (2015). Sendai Framework for Disaster Risk Reduction 2015-2030. https://www.undrr.org/implementing-sendai-framework/what-sendai-framework

Uphoff, E. P., Lombardo, C., Johnston, G., Weeks, L., Rodgers, M., Dawson, S., Seymour, C., Kousoulis, A. A., & Churchill, R. (2021). Mental health among healthcare workers and other vulnerable groups during the COVID-19 pandemic and other coronavirus outbreaks: A rapid systematic review. PLOS ONE, 16(8), e0254821. https://doi.org/10.1371/journal.pone.0254821

Van der Geest, K., & Schindler, M. (2017). Report: Handbook for assessing loss and damage in vulnerable communities. Bonn: United Nations University Institute for Environment and Human Security (UNU-EHS). https://digitallibrary.un.org/record/4066784?v=pdf

Varghese, C., & Kumar, S. S. (2022). Marginality: A Critical Review of the Concept. Review of Development and Change, 27(1), 23–41. https://doi.org/10.1177/09722661221096681

Vickery, J. (2018). Using an intersectional approach to advance understanding of homeless persons' vulnerability to disaster. Environmental Sociology, 4(1), 136–147. https://doi.org/10.1080/23251042.2017.1408549

von Meding, J., & Chmutina, K. (2023). From labelling weakness to liberatory praxis: A new theory of vulnerability for disaster studies. Disaster Prevention and Management: An International Journal, 32(2), 364–378. https://doi.org/10.1108/DPM-10-2022-0208

Wang, P.-W., Chen, Y.-L., Chang, Y.-P., Wu, C.-F., Lu, W.-H., & Yen, C.-F. (2021). Sources of COVID-19-Related Information in People with Various Levels of Risk Perception and Preventive Behaviors in Taiwan: A Latent Profile Analysis. International Journal of Environmental Research and Public Health, 18(4). https://doi.org/10.3390/ijerph18042091

WCDRR. (2015). International cooperation in support of a post-2015 framework for disaster risk reduction. Ministerial roundtable. Issue brief. UN Conference of Disaster Risk Reduction. https://www.wcdrr.org/uploads/International-cooperation-in-support-of-a-post-2015-framework-for-disaster-risk.pdf

WHO. (2017). Communicating risk in public health emergencies: A WHO guideline for emergency risk communication (ERC) policy and practice. Geneva: World Health Organization. https://www.who.int/publications/i/item/9789241550208

WHO. (2022). World mental health report: Transforming mental health for all. https://www.who.int/publications/i/item/9789240049338

WHO Europe. (2023). Transforming the health and social equity landscape: Promoting socially just and inclusive growth to improve resilience, solidarity and peace – DRAFT FOR CONSULTATION. https://www.who.int/europe/publications/m/item/transforming-the-health-and-social-equity-landscape-draft-for-consultation

Williams, B. D., & Webb, G. R. (2021). Social vulnerability and disaster: Understanding the perspectives of practitioners. Disasters, 45(2), 278–295. https://doi.org/10.1111/disa.12422

Wisner, B. (2016). Vulnerability as Concept, Model, Metric, and Tool. https://doi.org/10.1093/acrefore/9780199389407.013.25

Wisner, B., Blaikie, P., Cannon, T., & Davis, I. (2004). At risk: Natural hazards, people's vulnerability and disasters (2nd tr). London and New York: Routledge.

Wolbers, J., Kuipers, S. & Boin, A. (2021). A systematic review of 20 years of crisis and disaster research: Trends and progress." Risks Hazards Crisis Public Policy, 12, 374–392. https://doi.org/10.1002/rhc3.12234

Wolf, K., & Schmitz, J. (2024). Scoping review: Longitudinal effects of the COVID-19 pandemic on child and adolescent mental health. European Child & Adolescent Psychiatry, 33(5), 1257–1312. https://doi.org/10.1007/s00787-023-02206-8

Xiong, J., Lipsitz, O., Nasri, F., Lui, L. M. W., Gill, H., Phan, L., Chen-Li, D., Iacobucci, M., Ho, R., Majeed, A., & McIntyre, R. S. (2020). Impact of COVID-19 pandemic on mental health in the general population: A systematic review. Journal of Affective Disorders, 277, 55–64. https://doi.org/10.1016/j.jad.2020.08.001

Yin, R. K. (2014). Case study research: Design and methods (Fifth edition). SAGE.

SUMMARY IN ESTONIAN

Dünaamiline haavatavus COVID-19 pandeemia ajal: sotsiaalselt tõrjutute kogemused Euroopas

Varasemad uuringud on näidanud, et hädaolukordades saavad kõige valusamalt pihta need inimesed, kes on juba enne keerulises olukorras (Kosanic jt, 2022; Morris, 2020). Ka COVID-19 pandeemia, mis puudutas tõsiselt kogu ühiskonda, mõjus eriti rängalt toimetulekuraskustes ja sotsiaalselt tõrjutud rühmadele, kelle seas olid keskmisest suuremad nii nakatumine kui ka suremus (Leifheit jt, 2021; Niedzwiedz jt, 2020). Sotsiaalne tõrjutus (ka marginaliseeritus) kui tahtest sõltumatu eraldatus ühiskondlike põhisüsteemide äärealale, on laialt levinud ka Euroopas. Üks viiest Euroopas Liidu elanikust on vaesuse ja sotsiaalse tõrjutuse ohus (Eurostat, 2025), tänaval või ajutises varjupaigas ööbib üle 1,2 miljoni inimese (FEANTSA, 2024). Ometi on neid COVID-19 hädaolukordade riskirühmana vähe käsitletud sotsioloogilistes uuringutes. Uurimistöö fookustamine tõrjututele on vajalik, kuna ebavõrdsus ja hädaolukorrad hoiavad teineteist nõiaringis. Ebavõrdne ligipääs teenustele ja ressurssidele muudab inimese haavatavamaks, samal ajal kui hädaolukordade tagajärjed süvendavad vaesust ja sotsiaalset ebavõrdsust (Hallegatte jt, 2020; UNDRR, 2023a). Haavatavuse ning selle kujunemise mõistmine hädaolukordade kontekstis loob aluse kogukondade kerksuse tõstmiseks.

Arusaam, et haavatavus on staatiline ja omane teatud rühmadele (näiteks eakatele või puuetega inimestele) on asendumas dünaamilise käsitlusega, mille kohaselt võib iga inimene sattuda haavatavasse olukorda (Kuran jt, 2020). Seda muutust peegeldades tuleks haavatavust mõista dünaamilisena, arvestades individuaalsete haavatavuse allikate kõrval ka sotsiaalstruktuurseid ja olukorraspetsiifilisi tegurid (Orru jt, 2021; 2025). Hädaolukordades võivad need tegurid avalduda erinevalt ning nende koostoime võib ühtaegu pakkuda kaitset või vastupidi – süvendada inimeste haavatavust, kui mõjud kuhjuvad.

Empiirilised uuringud on seni pööranud väga vähe tähelepanu marginaliseeritud rühmade dünaamilisele haavatavusele hädaolukordades (Vickery, 2018). Nii ongi Uekusa (2019) küsinud kerksuse, haavatavuse ja sotsiaalse kapitali uurijatelt: „Aga kuidas on nende nähtamatute, haavatavate ja vähem kerksete inimestega, kellel on vähe sotsiaalseid sidemeid? Kas keegi on päriselt nendeni jõudnud?“ Minu doktoritöö eesmärk on süvendada arusaamist sellest, kuidas sotsiaalselt tõrjutud ühiskonnagrupid Euroopas kogesid COVID-19 pandeemiat, ning analüüsida mehhanisme, mis nende haavatavust hädaolukorras vormisid. Täpsemalt püstitasin kaks uurimisküsimust:

1. Millised olid marginaliseeritud gruppide ja neid toetavate abiasutuste kogemused Euroopas COVID-19 ajal?
2. Millised individuaalsed, sotsiaalstruktuurilised ja oluspetsiifilised tegurid kujundasid tõrjutute COVID-19 pandeemia kogemust?

Küsimustele vastamiseks koguti andmeid kaheteistkümnest Euroopa riigist (Belgia, Eesti, Hispaania, Holland, Itaalia, Leedu, Norra, Portugal, Saksamaa, Soome, Tšehhi, Ungari). Kokku viidi läbi 32 ekspertintervjuud, viis töötuba ning rahvusvaheline kollokvium abiasutuste juhtide ja töötajatega. Ühise nimetaja „abiasutused“ alla on siin töös koondatud supiköögid, päevakeskused, varjupaigad ja majutusasutused, mille 273 kliendiga korraldati küsitlusuuring. Sama liiki abiasutuste kohandumine pandeemiaga olid uuritud Euroopa riikides sarnane, mistõttu doktoritöö ei keskendu riikidevahelisele võrdlusele, vaid tõrjutute elukohale. Selle põhjal jaotati nad Busch-Geertsema jt (2016) kodutuse raamistikule tuginedes kolme rühma: oma kodus; tänaval või varjupaigas; ning pikaajalises majutusasutuses elavad abiasutuste kliendid. Riikide vahel ilmnenud eripärad on integreeritud töö analüüsi.

Doktoritöö põhineb kolmel uurimusel, mis on avaldatud artiklitena rahvusvahelistes eelretsenseeritavates ajakirjades: „Resilience in care organisations: challenges in maintaining support for vulnerable people in Europe during the COVID-19 pandemic“ (**Uurimus I**); „Mechanisms behind COVID-19 scepticism among socially marginalised individuals in Europe“ (**Uurimus II**); ning „Care organisations role as intermediaries between the authorities and the marginalised in Europe“ (**Uurimus III**). Peamised tulemused on alljärgnevalt esitatud viie teesina, millele järgnevad peamised soovitused poliitikakujundajatele kõigiks hädaolukorra faasideks, sealhulgas ärahoidmise, planeerimise, reageerimise ja taastumise kohta ning suunised edasisteks teadusuuringuteks.

1. Kõige haavatavamana näivad inimesed ei pruugi hädaolukorras enim hätta jääda

COVID-19 pandeemia murdis seniseid arusaamu haavatavusest, tuues esile neid, keda traditsiooniliselt ei ole peetud hädaolukordadest kõige ohustatumaks. Näiteks on uuringud välja toonud, et isolatsioonireeglitega said valusalt pihta õpilased ja noored. Ka minu doktoritööst ilmnes, et pandeemiakogemused olid uuritud rühmades üllatavalt mitmekesised. Sotsiaaltöötajad tõid välja neli tunnust, mis iseloomustasid enim kannatanuid: sisserändetaust, esmakordne abivajadus, vaimse tervise haavatavus ja piiratud suhtlemisvõimekus. Sisserännanutel puudus sageli võrdne ligipääs riiklikele teenustele (nt Norra, Itaalia), erakorralisele abile ja usaldusväärsele kriisiinfole. Viimasega seoses oli neis kogukondades laialt levinud väärinfo pandeemia kohta ning kõrge skeptilisuse tase COVID-19 riskide suhtes. Stigmatiseerimine „viiruse levitajateks“ võimendas sisserännanute tõrjutust. Pandeemia ulatusliku negatiivse mõju taustal inimeste vaimsele tervisele eristusid abiasutuste nn „uued kliendid“ – inimesed, kelle majanduslik toimetulek oli ootamatult halvenenud, ning kes abi otsides tundsid tugevat stressi ja häbitunnet. Juba varasemalt haavatavas psüühilises seisundis abiasutuste kliendid kogesid ärevuse ja üksinduse suurenemist. Eriti keerulises olukorras olid need, kes ei suutnud oma abivajadust väljendada. Suhtlemis- või digioskuste nappus, raskused lugemise või kirjutamisega, aga ka dokumentide puudumine või muul põhjusel ametiasutuste pelgamine, sõltuvused või vaimse tervise häired võisid jätta kõige hapramas olukorras inimesed abita.

Vastupidiselt senisele teadmisele koduseinte kaitsvast mõjust (Morris 2020; Tsai ja Wilson 2020), tajusid oma kodus elavad inimesed pandeemia negatiivsed mõjusid nii vaimsele tervisele kui majanduslikule toimetulekule kõige tugevamalt. Pikaajalises majutusasutuses elamine pidevas kontaktis sotsiaaltöötajatega aga pakkus kaitstuse ja turvatunnet. Püsiva elukohata, sageli tänaval ööbivate inimeste puhul tuli esile kerksus ning kohanemisvõime pikaajalises hädaolukorras, mis võib olla seotud varasemalt kogetud traumade ja igapäevaelu raskustega. (**Uurimused I ja II**)

Poliitikasoovitused

- *Vajalik on töötada välja lahendused, mis võimaldaksid hädaolukordades varakult märgata inimesi, kes muutuvad esmakordselt haavatavaks.*
- *Vaimse tervise toetamine tuleks lõimida kõikidesse kriisihalduse faasidesse.*

Edasised uurimissuunad

- *Seni on uurimata kõige tõrjutumas olukorras inimeste kogemused, kelleni ei ulatu ei riiklikud ega heategevuslikud tugistruktuurid.*
- *Abiasutuste „uutele klientidele“ keskenduvad uuringud aitaksid mõista esmakordselt haavatavaks muutumise kogemust ning arendada kriisipoliitikaid ja tugisüsteeme selle vältimiseks.*

2. Kriisikommunikatsioon oli tõrjutud olukorras inimestele sageli kättesaamatu ja raskesti mõistetav, jättes nad pandeemiale reageerimiseks vajaliku toeta

Tõhus kriisikommunikatsioon on pandeemiaga toimetuleku üks nurgakive (WHO, 2017), samas kui selle ebaõnnestumine süvendab olemasolevat haavatavust (Frederici, 2022). Kõigis doktoritöö raames läbiviidud uuringutes tõusis esile tõrjutud inimeste ulatuslik kõrvalejäämine avalikkusele suunatud pandeemiainfost, mida saatis valeinfo laialdane levik nende seas. Paljudel juhtudel puudus teave vähemustele ja sisserännanutele arusaadavas keeles või ligipääsetavana tajupuudega inimestele. Infole ligipääsuks oli vaja digiseadmeid ja -teadmisi, sellest arusaamiseks selgitusi ja tuge kehtestatud meetmete rakendamiseks. Kooskõlas Hanssoni ja kolleegide esitatud tüpoloogiaga (Hansson jt, 2021) ringlesid väärarusaamad, mis moonutasid viiruse leviku mehhanisme ja suunasid kasutama valesid kaitsemeetodeid, pisendasid pandeemiaga seotud riske ning pärssisid käitumisjuhiste järgimist. Viimane väljendus eriti selgelt vaktsineerimispelglikkuses. COVID-19 riskide alahindamine marginaliseeritud rühmade seas seostus vähese usaldusega ametliku teabe vastu (**Uurimus II**), viidates kriisikommunikatsiooni puudulikkusele usalduse kujundajana. Pandeemia ajal kasvanud negatiivsed hoiakud koduta inimeste ja sisserännanute suhtes (**Uurimused I ja III**) kutsuvad laiemale arutelule kommunikatsiooni rolli üle ühiskondlike väärtuste ja reaktsioonide suunajana, mis võivad tõrjutust süvendada või leevendada.

Suurenev kultuuriline ja keeleline mitmekesisus Euroopas osutab vajadusele arendada kriisikommunikatsioonipraktikaid, mis ületavad mitte ainult keelelisi, vaid ka kultuurilisi barjääre, põimides teadmisi tõlkimise, tõlgendamise ning vahendamise valdkondadest (Ciribuco ja Frederici, 2024). Usalduse loomiseks ning kriisiinfo edukaks vahendamiseks on vajalik kaasata kriisihaldusesse erinevaid sihtrühmi tundvaid osapooli (Hannes jt, 2024). Teadvustades lõhet oma klientide ja ametlike infokanalite vahel, võtsid abiasutused ja sotsiaaltöötajad teabe tõlkimise, levitamise ja selgitamise oma õlule. Nende tegevus vahendajana oli eriti oluline kõige haavatavamas olukorras inimeste jaoks, kellel sageli puudusid mitte ainult vajalik keeleoskus või digiseadmed, vaid ka valmisolek infot vastu võtta (**Uurimused I, II ja III**).

Poliitikasoovitused

- *Riski- ja kriisikommunikatsiooni planeerimisse tuleks kaasata haavatavate rühmade esindajad, et tagada kriisiteabe ligipääsetavus ning jõuda rändetaustaga ja piiratud suhtlemisvõimega inimesteni usaldusväärsete vahendajate kaudu.*
- *Tõhusad suhtluskanalid abiasutustega aitaksid vältida infolünki ja väärinfo levikut, mis võivad ohustada nende kliente.*

Edasised uurimissuunad

- *Et toetada tõhusamate sõnumite kujundamist, on vajalik uurida tõrjutud rühmade infotarbimise harjumusi.*

3. Kriisijuhtide ja ametkondade puudulik teadlikkus põhjustas haavatavatele rühmadele lisakannatusi

Pikka aega püsinud staatiline käsitlus haavatavusest hädaolukordades on kujundanud arusaama, justkui tuleneksid haavatavas olukorras inimeste ebaproportsionaalselt rasked läbielamised nende piiratud võimetest ja ressurssidest, kinnistades kuvandit haavatavusest kui „nõrkusest“ (Chmutina jt, 2024). **Uurimused I–III** näitavad aga selgelt, et pandeemia ajal halvendasid tõrjutute olukorda puudujäägid kriisihalduses ja riiklikes tugistruktuurides, mille juurpõhjuseks olid sageli vähene teadlikkus nende vajadustest ning neid toetavate abiasutuste toimimisest. Näiteks suleti isolatsioonireeglite tõttu supiköökide ning päevakeskuste ruumid päevapealt ja ilma asendust pakkumata, jättes abivajajad ligipääsuta tualett- ja pesuruumidesse ning muudele teenustele ning katkestades nende sidemed suhtlusvõrgustike ja sotsiaaltöötajatega. Mõnedes riikides keelustati ja karistati trahviga tänaval viibimine, pakkumata peavarju, ning esines isegi kodutuse kriminaliseerimist (Itaalia, Tšehhi, Ungari). Selline ühiskonna vähem nähtavate rühmade vajaduste märkamata jätmine (mis, nagu sotsiaaltöötajad märkisid, oleks talvisel ajal võinud tuua drastilisi tagajärgi) õõnestab usaldust valitsusasutuste vastu, mis omakorda kahjustab järgnevaid hädaolukorra lahendamiseks tehtavaid pingutusi.

Usalduse temaatika kujunes laiemalt üheks oluliseks jooneks, mis läbis kogu minu uurimistööd.

Esmased pandeemia ohjamiseks rakendatud meetmed ei jätnud tähelepanuta mitte ainult haavatavas olukorras inimesi, vaid ka neid toetavate abiasutuste eripärad. Sotsiaalteenuste pakkujatele suunatud juhised olid sageli ebasobivad ja omavahel vastukäivad (**Uurimused I ja III**). Selle hädaolukorra pikk kestvus andis võimaluse ka olukorra parandamiseks: suurendati rahastust ja varustamist isikukaitsevahenditega ning loodi lisavõimalusi kodutute majutamiseks. Piirangute leevenemisel pidid aga paljud ajutise peavarju saanud naasma tänavatele – olukord, mis toob esile vajaduse tegeleda süsteemselt eri ühiskonnagruppidega ka kriisimeetmete lõppedes (**Uurimus III**).

Eelkirjeldatud kogemused kinnitavad selgelt sotsiaalsektori kriisijuhtimisse lõimimise tähtsust. Kuigi kaasava kriisihalduse olulisust rõhutavad nii rahvusvahelised poliitikadokumendid kui teadusuuringud, püsib teooria ja praktika vahel jätkuvalt suur lõhe. Kõige tõrjutumate rühmade kõrvalejätmine on endiselt üks peamisi takistusi õiglasema ja kaasavama kriisiplaneerimise kujundamisel. Sisuline kaasamine eeldab uusi töömeetodeid ja mõtteviisi muutust, et tuua ka haavatavas olukorras inimeste esindajad kriisihalduse otsustustasandile.

Poliitikasoovitused

- *Sotsiaalhoolekande asutusi tuleks käsitada võrdväärse osapoolena kriisihalduses ning kaasata haavatavate sihtrühmade esindajad, abiasutused ja sotsiaaltöötajad kõikidel tasanditel ja etappides.*
- *Vajalik on arendada kaasava kriisihalduse strateegiad ning toetada ametnikke, kohalikke omavalitsusi ja kriishaldusasutusi kaasavate praktikate kujundamisel.*

Edasised uurimissuunad

- *Tulevased uuringud peaksid aitama tuvastada peamised takistused ning lahendused kaasava kriisihalduse praktiliseks elluviimiseks.*

4. Abiasutused on tõrjutud rühmade kerksuse tagajad

Oma doktoritöö üheks olulisemaks panuseks pean abiasutuste sageli varju jääva, kuid võtmetähtsusega rolli avamist ühiskondliku kerksuse suurendamisel. Lisaks kõige haavatavamate inimeste igapäevasele toetamisele on neil seni alahinnatud potentsiaal vähendada lünki kriisihaldusesse kaasatuses ning vahendada kriisiteavet inimestele, kelleni see muidu ei ulatu. Abiasutusi ei saa siiski pidada võluvitsaks. Arvestades suurt mõju hapras olukorras olevatele inimestele, on tähtis tagada neile mitte ainult rahastus ja ressursid, vaid ka sisuline tugi juhiste ja ajakohase kriisikommunikatsiooni näol.

Pandeemia ajal leidsid abiasutused loovaid viise teenuste jätkamiseks. Supiköögid hakkasid toitu jagama vabas õhus või kaasa andmiseks, päevakeskused pakkusid telefoni teel nõustamist ja emotsionaalset tuge ning korraldasid pesu pesemist, riiete jagamist ja muud praktilist abi väljaspool oma ruume. Mõned töötajad liikusid abivajajaid otsides ka tänavatel. Pikaajalist majutust pakkuvate asutuste tegevus oli kõige vähem mõjutatud, mitmed öömajad ja varjupaigad läksid aga üle püsivale teenusele. **Uurimus I** osutas, et abiasutuste endi kerksus toetub organisatsioonikultuurile ning töötajate ja juhtide isikuomadustele. Vaatamata töötajate nappusele, piiratud ressurssidele ning pandeemia tingimustele sageli sobimatule taristule võimaldasid pühendumus, jagatud väärtused, loovus ja kohanemisvõime pakkuda abi ka keerulistes oludes ja ametlike juhisteta. Stabiilsem oli abiasutuste rahastus riikides, kus see toetub enam riigi- ja omavalitsuste finantseerimisele (nt Eesti, Leedu). Sotsiaaltöötajaid toetas ka nende missioonitunne ja oma töö olulisuse tunnetamine. Pandeemia tõi siiski kaasa ränga töökoormuse, mis põhjustas vaimset ja füüsilist kurnatust, ning muretsemise oma tervise pärast töötajate seas, kellest paljud kuulusid COVID-19 riskirühma. Abiasutuste pingutusi haavatavas olukorras inimeste toetamiseks saatis samal ajal „sotsiaaltöö valdkonna kõrvulukustav vaikus pandeemia ülemaailmses diskursuses“ (Amadasun, 2020) mistõttu personal tunnetas end tegutsemas „nähtamatul eesliinil“ (**Uurimus I**; Miller ja Grise-Owens, 2022).

Doktoritöö tulemused rõhutavad, et sotsiaalteenuseid osutavate abiasutuste roll hädaolukordades vajab suuremat tähelepanu. Sotsiaaltöötajatel on lisaks teadmistele ja kogemustele kriisisuuniste edastamiseks ka usaldusväärsus, mis võimaldab inimesteni jõuda ning julgustada käitumismuutusi – tuginedes sellele, et me „sageli usaldame neid, keda usaldavad need, keda meie usaldame“ (Blumczynski, 2016). Sellise „ülalt alla“ kriisiteabe vahendamise kõrval olid abiasutuste „alt üles“ tegevused pandeemia ajal keskendunud tõrjutud rühmade huvide kaitsele. Pöördumistes kriisijuhtide, riigiasutuste ja avalikkuse poole selgitati haavatavas olukorras inimeste vajadusi ning taotleti nendega arvestamist ning sotsiaalse kaitse tugevdamist. Püsivaks kujunes koostöö siiski vaid ainult üksikjuhtudel, riikides kus see oli tihedam juba enne pandeemiat (nt Ungari, Saksamaa). Otsustusprotsessidesse ei kaasatud abiasutusi aga kogu pandeemia vältel. Tulevikku silmas pidades on oluline kaasata abiasutused ka kriisiõppustesse ning pakkuda esmareageerijatele koolitusi, et nad oskaksid arvestada erinevate sihtrühmade eripäradega.

Poliitikasoovitused

- *Sotsiaalhoolekande asutused ja nende töötajad peaksid osalema kriisiõppustel ja -koolitusetel, et olla valmis hädaolukordades tõhusalt reageerima.*
- *Sotsiaaltöö õppekavadesse tuleks lisada kriisihalduse alased pädevused.*

Edasised uurimissuunad

- *Kriisihalduse pädevuste lõimimine sotsiaaltöö õppekavasse vajab sobivate lahenduste väljatöötamist ja uurimist.*

5. Sotsiaalselt tõrjutud rühmad Euroopas kandsid pandeemia ajal topeltkoormat

COVID-19 pandeemia kontekstis on teaduskirjanduses üha enam tähelepanu pälvinud mitme haavatavuse allika koostoimel tekkiv kumuleeruv efekt. Näiteks selgus meie uuringust Olsoni ja kolleegidega (2023), et sooliste ja sotsiaalmajanduslike ebavõrdsuste kuhjumine süvendas sotsiaalselt tõrjutud naiste vaimse tervisega seotud mõjusid. Käesoleva doktoritöö tulemused osutavad, et marginaliseeritud rühmade jaoks Euroopas kujunesid oluliseks lisakoormaks puudused avalike tugistruktuuride ning kommunikatsiooni toimimises ning kättesaadavuses – seni vähe uuritud aspekt kriisihaavatavuse mehhanismis. Esile tulid ka uued sotsiaalteenuste kliendid, kelle abivajadust enne pandeemiat ei osatud ette näha. See kinnitab, et haavatavus on dünaamiline nähtus, mille mõistmine on vastupanuvõime suurendamise eeltingimus.

Sotsiaalse haavatavuse raamistiku (Orru jt, 2022) süstemaatiline kohaldamine loob tervikliku arusaama hädaolukorras haavatavust kujundavatest teguritest ning nende vastastikusest toimest, mille kaudu need võivad üksteise mõju kas tasakaalustada või võimendada. Raamistiku rakendamine tuleviku kriisistsenaariumides võimaldab kriisihaldajatel ja kogukondadel „kududa turvavõrke“ (Orru ja Naevestad, 2023) – arendada võimekusi, mis kaitsevad inimesi haavatavasse olukorda „kukkumise“ eest. Need meetmed võivad olla suunatud konkreetsetele haavatavusteguritele (nt kriisiteabe paremale kättesaadavusele) või süsteemsemad, kompenseerides nõrkusi ühes valdkonnas (nt individuaalsed tegurid) tugevustega teises (nt sotsiaalsed tugivõrgustikud). Sotsiaalselt tõrjutud rühmade kogemused pandeemia ajal tõid sellises rollis esile abiasutused ja nende töötajad, kelle panus aitas leevendada raskusi, mis tulenesid kriisijuhtide ja ametkondade ebapiisavast teadlikkusest nende rühmade vajadustest ja neid toetavate abiasutuste eripäradest.

Poliitikasoovitused

- o *Avalikud institutsioonid peaksid võtma initsiatiivi ja vastutuse koostöö algatamise ja hoidmise eest abiasutustega, tagades selle toimimise kõigis hädaolukorra faasides.*
- o *Haavatavas olukorras inimeste toetamiseks on vaja riiklikke kriisifonde ja tihedamat koostööd abiasutustega, et tagada esmavajalike sotsiaalteenuste ja teabevahetuskanalite toimimine.*

Edasised uurimissuunad

- o *Dünaamilise sotsiaalse haavatavuse raamistiku kriisiplaneerimisel rakendamise võimaluste uurimine aitaks ette näha tulevastes hädaolukordades kujunevaid uusi ja/või kuhjuvaid haavatavusi ja tõhustada jõupingutusi nende mõju vähendamiseks.*

Hädaolukordade uurimist on kirjeldatud kui „interdistsiplinaarset kohtumispaika, mitte omaette teadusvaldkonda (Chmutina jt, 2024). Sarnaselt ühendab minu doktoritöö sotsiaalselt tõrjutud rühmade ning kriisihaavatavuse ja kerksuse uurimiseks erinevate distsipliinide vaatenurki. Teaduskirjandus rõhutab üha enam haavatavuste ristuvust ning marginaliseerimise juurpõhjuseid, tuues esile võimustruktuurid, sotsiaalsed ebavõrdsused ja sotsiaalse õigluse küsimused. Ka käesolev väitekiri kinnitab vajadust arvestada haavatavate sihtrühmade heterogeensust ning süstemaatiliselt avada sotsiaalstruktuurseid ja oluspetsiifilisi tegureid, mis nende haavatavust kujundavad. Rakendatud dünaamilise sotsiaalse haavatavuse raamistik pakub tasakaalustatud lähenemist, mis annab praktilist sisendit poliitikakujundajatele ja kriisijuhtidele sotsiaalselt õiglasemate ja tõhusamate kriisihalduse süsteemide arendamiseks.

PUBLICATIONS

CURRICULUM VITAE

Name: Kristi Nero
Date of birth: January 25, 1973
E-mail: nero.kristi@gmail.com

Relevant work experience:

Since 2022	University of Tartu, Faculty of Social Sciences, Institute of Social Sciences, Institute of Social Studies, Junior Research Fellow in Crisis Sociology

Education:

2021–2025	University of Tartu, PhD in Sociology
2013–2015	Estonian Academy of Security Sciences, MA in Social Sciences *(cum laude)*
2001–2006	University Nord, MA in Law, *(cum laude)*
1993–1999	Estonian Maritime Academy, Diploma in Navigation

Participation in research projects:

LSVUH24235	“Development of crisis vulnerability, future crises and interventions to enhance societal preparedness” (12.04.2024−31.12.2027)
MSVUH23399R	(101121172) “Innovating Preparedness by Leveraging SYNERGIES and Enhancing Results of DRM Projects” (01.12.2023−30.11.2026)
LLTOM23257	“A science-based future view of the rescue network” (05.05.2023−31.12.2024)
MSVUH23008	(101101690) EuRopean ObservAtory on Disaster risk and crisis Management good Practices: way ahead” (01.01.2023−31.12.2024)
LSVUH22399	“Interactive tool for assessing crisis vulnerability” (01.06.2022−30.11.2023)
MSVUH19284R	“Building European Communities' Resilience and Social Capital” (1.05.2019−30.04.2022)

Publications:

Orru, K.; Hansson, S.; Nero, K. (2025). Social vulnerability triage: a dynamic scenario-based system for disaster planning and response. *Journal of Risk Research*, 1−22. DOI: 10.1080/13669877.2025.2522660.

Orru, K.; Klaos, M.; Nero, K.; Gabel, F.; Hansson, S.; Nævestad, T. O. (2023). Imagining and assessing future risks: A dynamic scenario-based social vulnerability analysis framework for disaster planning and response. *Journal of Contingencies and Crisis Management*, 31 (4), 995−1008. DOI: 10.1111/1468-5973.12436.

Nero, K.; Orru, K.; Nævestad, T. O.; Olson, A.; Schobert, M.; Windsheimer, P.; Keränen, J.; Jukarainen, P.; Kajganovic, J. (2023). Care organisations' role as intermediaries between the authorities and the marginalised in crisis management. *International Journal of Disaster Risk Reduction*, 86. DOI: 10.1016/j.ijdrr.2022.103516.

Siimsen, I.; Orru, K.; Naevestad, T. O.; Nero, K.; Olson, A.; Kaal, E.; Meyer, S. F. (2023). Socio-economic outcomes of COVID-19 on the marginalised: Who have taken the hardest hit? *International Journal of Disaster Risk Reduction*, 93, 103723. DOI: 10.1016/j.ijdrr.2023.103723.

Olson, A.; Naevestad, T. O.; Orru, K.; Nero, K.; Schieffelers, A.; Meyer, S. F. (2023). The impact of the COVID-19 pandemic on socially marginalised women: Material and mental health outcomes. *International Journal of Disaster Risk Reduction*, 93, ARTN 103739. DOI: 10.1016/j.ijdrr.2023.103739.

Schobert, M.; Orru, K.; Gabel, F.; Nero, K.; Windsheimer, P.; Klaos, M.; Naevestad, T. O. (2023). The three A's of social capital in crises: Challenges with the availability, accessibility and activatability of social support. *International Journal of Disaster Risk Reduction*, 92, ARTN 103704. DOI: 10.1016/j.ijdrr.2023.103704.

Nero, K.; Orru, K.; Naevestad, T. O.; Olson, A.; Airola, M.; Savadori, L.; Kazemekaityte, A.; Lovasz, G.; Kajganovic, J. (2023). Mechanisms behind COVID-19 scepticism among socially marginalised individuals in Europe. *Journal of Risk Research*, 26 (6), 675−696. DOI: 10.1080/13669877.2023.2208119.

Orru, K.; Nero, K.; Siimsen, I. (2023). Ühiskonnas tõrjutute kriisikogemused: õppetunnid koroonapandeemiast [The crisis experiences of the socially marginalised individuals: lessons from the COVID-19 pandemic]. *Sotsiaaltöö*, 4.

Nævestad, T. O.; Orru, K.; Nero, K.; Schieffelers, A.; Olson, A.; Ludvigsen, J.; Airola, M.; Savadori, L.; Krüger, M.; Gabel, F.; Hesjevoll, I. (2022). Self-imposed social isolation among clients of social care organisations in the COVID-19 pandemic. *International Journal of Disaster Risk Reduction*, 82. DOI: 10.1016/j.ijdrr.2022.103360.

Orru, K.; Hansson, S.; Klaos, M.; Nero, K.; Torpan, S.; Siimsen, I. (2022). Kuidas mõista ja vähendada ühiskonna haavatavust kriisides? [How to understand and mitigate the social vulnerability to crises?]. *Turvalisuskompass*, 2 (1/2022), 73−88. DOI: 10.15158/p2ad-sp42.

Keränen, J.; Airola, M.; Molarius, R.; Latvakoski, J.; Lusikka, T.; Morsut, C.; Kuran, C. H. A.; Orru, K.; Hansson, S.; Torpan, S.; Nero, K.; Tominga, A.; Gabel, F.; Schobert, M.; Savadori, L.; Mittone, L.; Olson, A.; Naevestad, T-O.; Rhinard, M.; Berawi, M. A. (2022). *Handbook to improve societal disaster resilience: BuildERS project findings*. In: VTT Technology; 406. DOI: 10.32040/2242-122X.2022.T406.

Orru, K.; Nero, K.; Nævestad, T. O.; Schieffelers, A.; Olson, A.; Airola, M.; Kazemekaityte, A.; Lovasz, G.; Scurci, G.; Ludvigsen, J.; de los Rios Pérez, D. A. (2021). Resilience in care organisations: challenges in maintaining support for vulnerable people in Europe during the Covid-19 pandemic. *Disasters*, 45 (S1), S48−S75. DOI: 10.1111/disa.12526.

Nero, K., Järvet, S., & Tross, J. (2015). Crisis Preparedness of the Health Care System: Case Study Analysis in the Estonian context. *Proceedings of the Estonian Academy of Security Sciences*, (14).

ELULOOKIRJELDUS

Nimi: Kristi Nero
Sünniaeg: 25. jaanuar 1973
E-post: nero.kristi@gmail.com

Akadeemiline töökogemus:

Alates 2022	Tartu Ülikool, Sotsiaalteaduste valdkond, ühiskonnateaduste instituut, kriisisotsioloogia nooremteadur

Haridus:

2021–2025	Tartu ülikool, PhD, sotsioloogia
2013–2015	Sisekaitseakadeemia, MA *(cum laude)*, sisejulgeolek
2001–2006	Akadeemia Nord, MA *(cum laude)*, õigusteadus
1993–1999	Eesti Merehariduskeskus, diplomiõpe, navigatsioon

Osalemine uurimisprojektides:

- Kriisihaavatavuse kujunemine, tulevikukriisid ja sekkumised ühiskondliku valmisoleku suurendamiseks (12.04.2024−31.12.2027), Päästeamet (nr LSVUH24235)
- Uuendused kriisivalmisolekus sünergiliselt edasi arendades varasemate kriisihalduse uurimisprojektide tulemusi (01.12.2023−30.11.2026), Euroopa Komisjon (nr MSVUH23399R)
- Päästevõrgustiku teaduspõhine tulevikuvaade (05.05.2023−31.12.2024), Päästeamet (nr LLTOM23257)
- Head tavad Euroopa kriisihalduses (01.01.2023−31.12.2024), Euroopa Komisjon (nr MSVUH23008)
- Interaktiivne vahend kriisihaavatavuse hindamiseks (01.06.2022−30.11.2023), Päästeamet (nr LSVUH22399)
- Säilenõtkuse ja sotsiaalse kapitali suurendamine Euroopa kogukondades (1.05.2019−30.04.2022), Euroopa Komisjon (nr MSVUH19284R)

Publikatsioonid:

Orru, K.; Hansson, S.; Nero, K. (2025). Social vulnerability triage: a dynamic scenario-based system for disaster planning and response. *Journal of Risk Research*, 1−22. DOI: 10.1080/13669877.2025.2522660.

Orru, K.; Klaos, M.; Nero, K.; Gabel, F.; Hansson, S.; Nævestad, T. O. (2023). Imagining and assessing future risks: A dynamic scenario-based social vulnerability analysis framework for disaster planning and response. *Journal of Contingencies and Crisis Management*, 31 (4), 995−1008. DOI: 10.1111/1468-5973.12436.

Nero, K.; Orru, K.; Nævestad, T. O.; Olson, A.; Schobert, M.; Windsheimer, P.; Keränen, J.; Jukarainen, P.; Kajganovic, J. (2023). Care organisations' role as intermediaries between the authorities and the marginalised in crisis management. *International Journal of Disaster Risk Reduction*, 86.

DOI: 10.1016/j.ijdrr.2022.103516.

Siimsen, I.; Orru, K.; Naevestad, T. O.; Nero, K.; Olson, A.; Kaal, E.; Meyer, S. F. (2023). Socio-economic outcomes of COVID-19 on the marginalised: Who have taken the hardest hit? *International Journal of Disaster Risk Reduction*, 93, 103723. DOI: 10.1016/j.ijdrr.2023.103723.

Olson, A.; Naevestad, T. O.; Orru, K.; Nero, K.; Schieffelers, A.; Meyer, S. F. (2023). The impact of the COVID-19 pandemic on socially marginalised women: Material and mental health outcomes. *International Journal of Disaster Risk Reduction*, 93, ARTN 103739. DOI: 10.1016/j.ijdrr.2023.103739.

Schobert, M.; Orru, K.; Gabel, F.; Nero, K.; Windsheimer, P.; Klaos, M.; Naevestad, T. O. (2023). The three A's of social capital in crises: Challenges with the availability, accessibility and activatability of social support. *International Journal of Disaster Risk Reduction*, 92, ARTN 103704. DOI: 10.1016/j.ijdrr.2023.103704.

Nero, K.; Orru, K.; Naevestad, T. O.; Olson, A.; Airola, M.; Savadori, L.; Kazemekaityte, A.; Lovasz, G.; Kajganovic, J. (2023). Mechanisms behind COVID-19 scepticism among socially marginalised individuals in Europe. *Journal of Risk Research*, 26 (6), 675−696. DOI: 10.1080/13669877.2023.2208119.

Orru, K.; Nero, K.; Siimsen, I. (2023). Ühiskonnas tõrjutute kriisikogemused: õppetunnid koroonapandeemiast. *Sotsiaaltöö*, 4.

Nævestad, T. O.; Orru, K.; Nero, K.; Schieffelers, A.; Olson, A.; Ludvigsen, J.; Airola, M.; Savadori, L.; Krüger, M.; Gabel, F.; Hesjevoll, I. (2022). Self-imposed social isolation among clients of social care organisations in the COVID-19 pandemic. *International Journal of Disaster Risk Reduction*, 82. DOI: 10.1016/j.ijdrr.2022.103360.

Orru, K.; Hansson, S.; Klaos, M.; Nero, K.; Torpan, S.; Siimsen, I. (2022). Kuidas mõista ja vähendada ühiskonna haavatavust kriisides?. *Turvalisuskompass*, 2 (1/2022), 73−88. DOI: 10.15158/p2ad-sp42.

Keränen, J.; Airola, M.; Molarius, R.; Latvakoski, J.; Lusikka, T.; Morsut, C.; Kuran, C. H. A.; Orru, K.; Hansson, S.; Torpan, S.; Nero, K.; Tominga, A.; Gabel, F.; Schobert, M.; Savadori, L.; Mittone, L.; Olson, A.; Naevestad, T-O.; Rhinard, M.; Berawi, M. A. (2022). *Handbook to improve societal disaster resilience: BuildERS project findings*. In: VTT Technology; 406. DOI: 10.32040/2242-122X.2022.T406.

Orru, K.; Nero, K.; Nævestad, T. O.; Schieffelers, A.; Olson, A.; Airola, M.; Kazemekaityte, A.; Lovasz, G.; Scurci, G.; Ludvigsen, J.; de los Rios Pérez, D. A. (2021). Resilience in care organisations: challenges in maintaining support for vulnerable people in Europe during the Covid-19 pandemic. *Disasters*, 45 (S1), S48−S75. DOI: 10.1111/disa.12526.

Nero, K., Järvet, S., & Tross, J. (2015). Crisis Preparedness of the Health Care System: Case Study Analysis in the Estonian context. *Proceedings of the Estonian Academy of Security Sciences*, (14).

DISSERTATIONES SOCIOLOGICAE UNIVERSITATIS TARTUENSIS

1. **Veronika Kalmus**. School textbooks in the field of socialisation. Tartu, 2003, 206 p.
2. **Kairi Kõlves**. Estonians' and Russian minority's suicides and suicide risk factors: studies on aggregate and individual level. Tartu, 2004, 111 p.
3. **Kairi Kasearu**. Structural changes or individual preferences? A study of unmarried cohabitation in Estonia. Tartu, 2010, 126 p.
4. **Avo Trumm**. Poverty in the context of societal transitions in Estonia. Tartu, 2011, 215 p.
5. **Kadri Koreinik**. Language ideologies in the contemporary Estonian public discourse: With a focus on South Estonian. Tartu, 2011, 128 p.
6. **Marre Karu**. Fathers and parental leave: slow steps towards dual earner/ dual carer family model in Estonia. Tartu, 2011, 125 p.
7. **Algi Samm**. The relationship between perceived poor family communication and suicidal ideation among adolescents in Estonia. Tartu, 2012, 121 p.
8. **Tatjana Kiilo**. Promoting teachers' efficacy through social constructivist language learning: challenges of accommodating structure and agency. The case of Russian-speaking teachers in Estonia. Tartu, 2013, 156 p.
9. **Ave Roots**. Occupational and income mobility during post-socialist transformation of 1991–2004 in Estonia. Tartu, 2013, 130 p.
10. **Tarmo Strenze**. Intelligence and socioeconomic success A study of correlations, causes and consequences. Tartu, 2015, 119 p.
11. **Mervi Raudsaar**. Developments of social entrepreneurship in Estonia. Tartu, 2016, 141 p.
12. **Ero Liivik**. Otsedemokraatia Eestis: õigussotsioloogilisi aspekte. Tartu, 2017, 166 p.
13. **Mai Beilmann**. Social Capital and Individualism – Collectivism at the Individual Level. Tartu, 2017, 145 p.
14. **Rainer Reile**. Self-rated health: assessment, social variance and association with mortality. Tartu, 2017, 123 p.
15. **Katri Lamesoo**. Social Construction of Sexual Harassment in the Post-Soviet Context on the Example of Estonian Nurses. Tartu, 2017, 185 p.
16. **Andu Rämmer**. Sotsiaalse tunnetuse muutused Eesti siirdeühiskonna kontekstis. Tartu, 2017, 230 p.
17. **Kadri Rootalu**. Antecedents and consequences of divorce in Estonia from longitudinal and multigenerational perspectives. Tartu, 2017, 128 p.
18. **Kairi Talves**. The dynamics of gender representations in the context of Estonian social transformations. Tartu, 2018, 129 p.
19. **Aare Kasemets**. Institutionalisation of Knowledge-Based Policy Design and Better Regulation Principles in Estonian Draft Legislation. Tartu, 2018, 252 p.

20. **Dagmar Narusson**. Personal-recovery and agency-enhancing client work in the field of mental health and social rehabilitation: Perspectives of persons with lived experience and specialists. Tartu, 2019, 139 p.
21. **Oliver Nahkur**. Measurement of Interpersonal Destructiveness: the Societal Perspective. Tartu, 2019, 164 p.
22. **Tayfun Kasapoglu**. Algorithmic Imaginaries of Syrian Refugees: Exploring Hierarchical Data Relations from the Perspective of Refugees. Tartu, 2021, 152 p.
23. **Kristjan Kikerpill**. Crime-as-communication: detecting diagnostically useful information from the content and context of social engineering attacks. Tartu, 2021, 162 p.
24. **Taavi Laanepere**. Looking at the Military Service Readiness of Estonian Reserve Soldiers through the Prism of Bourdieu's Theory of Practice. Tartu, 2021, 174 p.
25. **Tiia-Triin Truusa**. The entangled gap: the male Estonian citizen and the interconnections between civilian and military spheres in society. Tartu, 2021, 159 p.
26. **Kadri Soo**. School as a source of child subjective well-being in the framework of children's rights: Perspectives of children and young adults. Tartu, 2023, 146 p.
27. **Hans Hõrak**. Development of a computer vision-based privacy-preserving automatic observation method for measuring physical activity in school. Tartu, 2023, 158 p.
28. **Märt Masso**. Employment relations in Estonia: employee control, participation and work accommodation in co-determining working conditions. Tartu, 2023, 133 p.
29. **Simone Eelmaa**. The social categorization of sexual abuse. Tartu, 2024, 247 p.
30. **Kristi Paron**. Child-patient autonomy: interplay between normativity and relationality. Tartu, 2024, 118 p.
31. **Janar Pekarev**. Military AI and autonomous weapon systems: an interdisciplinary exploration of ethical, legal, and sociological aspects. Tartu, 2024, 147 p.
32. **Usha Dahal.** Health and well-being inequalities in industrially contaminated sites: The case of Ida-Viru County in Estonia. Tartu, 2024, 128 p.
33. **Eleri Lillemäe.** Pragmatic conscription: Perceptions and experiences of conscripts in Estonia. Tartu, 2025, 180 p.
34. **Sten Torpan.** European disaster risk reduction institutions' practices in mitigating communication-related vulnerabilities in disasters. Tartu, 2025, 141 p.
35. **Helina Maasing.** Measuring immigration-related. Conflict risk: a case of Estonia. Tartu, 2025, 194 p.