D1.6 VULNERABILITY AND VULNERABLE GROUPS FROM AN INTERSECTIONALITY PERSPECTIVE

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Executive Summary

D1.6 is the first scientific publication of WP1, based on the content of *D1.3 Segments of vulnerability country by country basis – inside and outside the official data*. This scientific article has been submitted to the International Journal for Disaster Risk Reduction by the main author (CK) within the official deadline (30.04.2020). Since this is a submission, the publication will happen later this year, hopefully.

In general, the identification and protection of vulnerable groups in case of hazards or when a crisis unfolds is an issue that any crisis and disaster risk management should address, since people have different levels of exposure to hazards and crises. In this article, we promote the application of the intersectionality perspective in the study of vulnerable groups and we call for intersectionality as a guiding principle in risk and crisis management to provide a better and more nuanced picture of vulnerabilities and vulnerable groups. This can help national and local authorities and agencies to formulate specific guides, to hire staff with skills necessary to meet particular needs, to inform vulnerable groups in a particular way taking into account the differences that may coexist within the same group. In this vein, we argue that research should focus on 1) self-perceived vulnerability of individuals and intersectionality approach to unpack vulnerable groups; 2) cases on crises according to the level and/or likelihood of individual exposure to hazards to better nuance issues of vulnerability.

Vulnerability and vulnerable groups

from an intersectionality perspective

1. Introduction

Since December 2019 a novel Corona virus, COVID-19, originated in Wuhan, the capital city of Hubei province in China, has spread all over the world, leading to the worst pandemic since the Spanish flu, with economic and social consequences that states will pay for years to come. Despite the warnings from the 2019 Global Health Security Index (GHS, 2019), which uncovered severe weaknesses in countries' abilities to prevent, detect, and respond to the high probability of epidemics and pandemics' outbreak (GHS 2019), the 2020 World Economic Forum Global Risk Report (WEF, 2020) placed infectious diseases at the last place among the top 10 risks in terms of impact.

At national level, the implementation of extensive governmental measures to limit and/or control the spread of the virus have had the goal to protect vulnerable groups - the elderly and people with pre-existing health problems - since they are considered by the World Health Organisation (WHO) to be at greater risk of developing severe symptoms. In general, the identification and protection of vulnerable groups, such as such as elderly, children and mental and/or physical impaired, in case of hazards or when a crisis unfolds is an issue that any crisis and disaster risk management should address, since people have different levels of exposure to hazards and crises, which do not affect people equally. This pandemic is no exception in this sense. However, a few studies on vulnerable groups in crises (see Fordham, 1999; Schuller, 2015; Lovell et al., 2019)

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point out that too often, the identities of vulnerable groups are “homogenized in practice without regard for the intersecting traits and continual factors that result in unequal disaster and environmental outcome” (Vickery, 2018: 136). In other words, group identity always takes precedence over individual identity.

The Horizon2020 BuildERS project has identified this as a significant scientific gap in the risk and crisis management literature. To overcome this gap, we propose an assessment of social vulnerability and vulnerable groups by using an intersectionality perspective. We argue that vulnerable groups are generally defined according to pre-crisis social, economic and cultural factors that usually engender and perpetuate inequality, exclusion, and lack of access to and control over resources in crises and disasters. On the contrary, the intersectionality perspective helps to uncover the intersection of multiple social variables and identities and the overlap of traits, vulnerabilities and exposure to hazards and crises in different groups, which can result in different positions of privilege and disadvantage (see Davis, 2008).

To achieve the aim of the article, we, firstly, examine how four countries from the BuildERS consortium - Estonia, Finland, Norway, and Sweden - officially describe vulnerability and identify vulnerable groups in official national public documents and surveys. Having framed vulnerability in the official country perspectives we secondly discuss these empirical data vis-à-vis the intersectionality perspective. Thirdly, we suggest a model for alternative framing of vulnerability and vulnerable groups through the intersectionality perspective to deepen our understanding of vulnerability.

2. Material and methods

Part of the empirical and theoretical part of this article have already been published in the H2020 BuildERS project’s report Segments of vulnerability country by country basis – inside and outside the official data from. To gather data, the report used a scoping study approach. According to O’Brien et al. (2016: 1), “scoping studies (or reviews) are a method used to comprehensively map evidence across a range of study designs in an area, with the aim of informing future research practice, programs and policy”. This approach was used with national documentation easily available from Estonian, Finnish, Norwegian, and Swedish sources, which were of the three types: scientific literature; official public national surveys and official public documents and reports that can be defined as grey literature (Schöpfel, 2010).

A snowballing practice, through which the researcher starts out with one central article or book and further pursue references after references using inclusion criteria (Jalali and Wohlin, 2012; Greenhalgh and Peacock, 2005), was the main mode of data collection. Official public national surveys and documents addressing issues of vulnerability and vulnerable groups were retrieved from the websites of the countries under study. Here, we mapped the national data according to: a) how national authorities define vulnerability; b) which factors national authorities often use to categorize vulnerability; c) what categories different nations divide vulnerable groups into.

The choice of the four countries was based on the following criteria, besides of the fact that they are part of the BuildERS’ consortium. They have a relatively strong welfare system, which guarantees basic services to the whole of the population, follow a similar risk governance and, to some extent, provide comparable categories of vulnerable groups and vulnerability factors. They all have a relatively low risk according to the INFORM Global Risk Index (GRI) (INFORM, 2019). The GRI is the result of the INFORM model, which includes three dimensions of risk to assess the risk level of countries: a) hazards and exposure; b) vulnerability; and c) lack of coping capacity. By combining the three dimensions (hazards, vulnerability, and coping capacities) the INFORM model

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provides the GRI according to a scale from 1 to 5, where 1 is the lowest national risk and 5 the highest. The INFORM model defines vulnerability as the susceptibility of communities to hazards (Marin-Ferrer et al. 2017:7), while a vulnerable group is defined as a "population within a country that has specific characteristics that make it at a higher risk of needing humanitarian assistance than others or being excluded from financial and social services. In a crisis such groups would need extra assistance, which appeals for additional measures, i.e. extra capacity, as a part of the emergency phase of disaster management" (ibid., 2017:34). In addition, all the four countries elaborate their national risk assessments based on the EU Risk Assessment and Mapping Guidelines for Disaster Management (European Commission, 2010), which define vulnerability following the 2009 UNISDR definition as "the characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard" (ibid., 2010:10).

3. Theory

Following the aim of the paper, our theoretical approach builds on the intersectionality perspective and how it intertwines with issues such as hazards, crisis and, most of all, vulnerability. The concept of intersectionality is credited to the American lawyer, civil rights advocate and leading scholar of critical race theory Kimberlé Crenshaw, who worked to understand the oppression of African-American women (Crenshaw, 1989). Intersectionality moves beyond binary categorisations, which have established rather homogenous groups, as, for example, men and women, by looking at the combination of several social variables, such as sex, age, disability, and immigration status, at the same time (Buckingham-Hatfield, 2000; Leach, 2007; Nightingale, 2006). As such, an intersectionality perspective captures differences in "individual lives, social practices, institutional arrangements, and cultural ideologies and the outcomes of these interactions in terms of power" (Davis, 2008: 68) through the acknowledgment of different spheres of influence, perceptions, and actions across environmental, social, and economic dimensions. This deepens the understanding of how different social groups both are affected by, and also their own effect on, impacts of various hazards and crises. Yet, as Kaijser and Kronsell (2014) emphasize, an intersectionality perspective does not entail including as many social variables as possible. The focus should lie on those variables that are relevant "in the particular case, while keeping in mind the bigger picture" (Kaijser and Kronsell, 2014: 422). Intersectionality helps recognizing that social constructs of identities, such as gender and ethnicity, and of identities such as women and men, are not homogenous (Nightingale, 2006; Buckingham-Hatfield, 2000; Leach, 2007). In addition, it primes the analysis for the inequalities of interacting social identities, such as gender, class, caste, race, physical/mental/emotional condition, nationality, and ethnicity to understand the multidimensional complexities of social constructions (Rocheleau et al., 1996; Elmhirst, 2011; Tschakert, 2012; Arora-Jonsson, 2014; Meinzen-Dick et al., 2014; Elmhirst, 2015). Finally, the intersectionality perspective been used in relation to human rights (Tomlinson and Baruch, 2013), risk analysis within a wide variety of risks, including diseases, earthquakes, and forest fires (Olofsson et al., 2016), and environmental and water-related hazards and crises (Fletcher, 2018). Within hazards and crises, the intersectionality perspective illuminates how multiple social differences are (re)produced in responses to hazards and crises.

According to Tierney (2014: 12), hazard is "the agent or means through which harms and losses might be realized". Hazards can be natural, anthropogenic or a combination of both. Hazards, per se, do not cause a crisis. The extensive literature on crisis and disaster risk management has provided several definitions of crisis. All have in common a series of un-ness (i.e. unexpected, unscheduled, unplanned, unprecedented, unpleasant, see Hewitt, 1983: 10): a crisis is usually unexpected, undesirable, unmanageable and unimaginable (Boin et al., 2018) even when all the signals that something is going wrong are there. The most encompassing definition of a crisis is

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provided by Rosenthal et al. (1989:10) as a “serious threat to the basic structures or the fundamental values and norms of a system, which under time pressure and highly uncertain circumstances necessitates making critical decisions”. Although this definition is 30 years old, it is still very actual in the way it sheds light on three aspect of a crisis: the threat, the urgency and the uncertainty (Boin et al., 2018).

A crisis unfolds when the hazard meets a vulnerable condition. Indeed, the same hazard can lead to different crises, whose diverse impacts depend on who and what in a given society is exposed to the hazard and the type and extent of vulnerability in question. Thus, it is not only the triggering event, i.e. the characteristics of the crisis that depicts vulnerability. Vulnerability is a social construction, highly contextual, and differs between social groups. Vulnerability can differ due to, for example, income, livelihood, education, health, or area of residence. Differentiated vulnerability not only causes inequity, an important underlying driver of crises (Pelling, 2011), but it can change over time, adding further complexity to on how vulnerability can be assessed. Tierney explains that the degree of vulnerability does not depend on one dimensional attribution (e.g. to a demographic group, such as elderly or children), but is the result of a complex relationship between different factors, like social class, race, gender and age (Tierney, 2019) to name just a few: ”[...] people are not born vulnerable, they are made vulnerable. [...] different axes of inequality combine and interact to for systems of oppression – systems that relate directly to differential levels of social vulnerability, both in normal times and in the context of disaster. Intersectionality calls attention to the need to avoid statements like ’women are vulnerable’ in favor of a more nuanced view [...]” (Tierney, 2019: 127–128). This dynamic understanding of vulnerability often refers to a very strong dependency on the situation, which renders targeted crisis relief actions increasingly difficult, as pre-determined categories represent just a potentiality and might be misleading (Gabel, 2019).

Taking into account intersectionality in relation to vulnerability and vulnerable groups means to challenge the diffuse tendency in public policy to categorise groups in terms of vulnerability to hazards, which ignores or overlooks the within groups’ differentials in vulnerability and resilience terms. As Tierney suggests ”[...] vulnerability has temporal, spatial, and situational dimensions. It exists at particular points in time and in particular locations; while disaster vulnerability is shaped by historical trends, conditions can also evolve and vary in ways that make individuals and groups more or less vulnerable, both in terms of impacts and in terms of outcomes” (Tierney, 2019: 125). In addition, crisis conditions may render traditionally robust individuals and groups vulnerable because of their exposure to the consequences of the crisis in question.

The levels of vulnerability vary, to a large extent, according to the individual capacity to cope with and to adapt to hazards or crises. This capacity to reduce vulnerability depends, in turn, on access to and control over different types of resources, such as level of education, social relations, health, and income. These are commonly distributed unequally between different social groups, and are dependent on social constructions of, for example, masculinity and femininity. As we stated above, a hazard poses a relatively low risk to a given society if there is no or minimal exposure to that hazard and if the vulnerability of a society, group or individual is low. It is clear from the literature on crisis and disaster risk management that the political and cultural structures as well as historical forces play a significant role in shaping societal vulnerability to hazards (see e.g. Adger et al., 2001; Kasperson and Kasperson, 2001; Wisner et al., 2004). Likewise, the literature on societal vulnerability to hazards analyses cultural practices and norms constructing social relations that result in different roles, responsibilities, values, and identities depending on various social variables (Braun, 2015; Tomlinson and Baruch, 2013; and various chapters in Wisner et al., 2004).

Hence, the intersectionality perspective commonly investigates intersections in specific contexts using empirical methods to explore people’s experiences and perceptions. It is common for

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intersectionality analyses to specifically give attention to marginalised groups (see e.g. Crenshaw, 2006; Tomlinson and Baruch, 2013), but it is important to bear in mind that groups can, at the same time, be subordinated and privileged. For instance, being of high socioeconomic status might not be very helpful when travelling in remote regions of the world, far away from home and without one's own social networks. Or if one has underlying factors of vulnerability and at the same time is exposed to a pandemic virus. Difference may also result in hierarchies that lead to both oppression and opportunity (Baca Zinn and Thornton Dill, 1996; Warner and Shields, 2013).

4. Empirical part

In this part, we present how four European countries, Estonia, Finland, Norway and Sweden, frame vulnerability and vulnerable groups in official national public documents and surveys.

4.1 Vulnerability and vulnerable groups in Estonia

In Estonia, the term vulnerability is often used in various official documents and reports dealing with cyber security to describe infrastructural and technological weaknesses (Estonian Information Systems Authority, 2019). When used to describe characteristics of the society, the Estonian Civil Protection Concept (Estonian Government Office, 2017) considers vulnerable those individuals who lack skills and capacities to cope with a disaster, while the Estonian State Protection Concept (Ministry of Defence, 2017) highlights that protective factors against vulnerability in threat conditions are social networks, prevalence of shared values and trust in state institutions. These protective factors work towards building social cohesion and solidarity to buffer the shocks that negative events may pose to the Estonian society. In general, Estonian official documents consider a variety of psychological, physical, social and economic factors as shaping and influencing vulnerability. These same factors are used to identify vulnerable groups, such as children (up to 18), elderly (from 65+ years), the Russian-speaking population minority, individuals or families with a lower income, and those living in sparsely populated municipalities with less economic capacities (Estonian Government Office, 2017).

Elderly are considered to possess lower capacities to react to a crisis (Kantar Emor, 2017; TNS Emor, 2016) and poorer knowledge than the younger population (TNS Emor, 2016). Another important issue related to the elderly is that 36% of the 239 600 individuals living alone in Estonia are older than 65 years (Estonian Statistics, 2019). This can make elderly even more vulnerable if there is no one else to rely on for information or help, especially if the individual is physically or cognitively disabled. Another group of people (often overlapping with the elderly) that may need extra care in times of crisis consists of individuals with chronic diseases. According to Estonian Statistics (2019), 30% of the Estonian population has a chronic disease or other severe health problems. A chronic disease may decrease the sensory, regulatory or motoric capabilities of an individual, which may impede appropriate response. In addition, it is likely that individuals with chronic diseases need constant medication. Considering that Estonia has a population of 1,4 million, this means that, based on these categories, a significant proportion is likely to be considered vulnerable in case of a crisis. The Russian-speaking population minority is mostly concentrated in the capital Tallinn and the North-eastern part of Estonia (Ida-Virumaa). Despite of the possession of the Estonian citizenship, most of the Russian-speaking population minority speaks little Estonian and often uses Russian media as main information source (Me.Media.World, 2014). This may lead to an increased risk of politically motivated reports by Russian media that do not mirror the real situation of a crisis unfolding in Estonia. In general, the Russian minority is less prepared for crises (TNS Emor, 2016). In Estonia, individuals or families with a lower income usually live in blocks of flats, which are less expensive than other types of houses (Torpan et al.,

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2019). This part of the population (57%) is materially and financially the least prepared to cope with a crisis (Estonian Government Office, 2017). On the other side, individuals or families living in sparsely populated rural areas are, as well, considered vulnerable, since, with fewer taxpayers to support the municipality local budget, they may not receive help and support by the municipality in case of a crisis (Ministry of Defence, 2017). In general, rural areas in Estonia with weak physical as well as social infrastructures within health care and education are less able to support their inhabitants in severe threat conditions.

4.2 Vulnerability and vulnerable groups in Finland

Finnish strategic security documents, such as the national risk assessment (Finnish Ministry of Interior, 2019), do not contain a definition of vulnerability, while the Finnish National Emergency Supply Agency (NESA, 2020) defines vulnerability as an exposure to a security threat and states that the vulnerability of, for example, electronic infrastructure and logistics systems is growing. As in Estonia, vulnerability is mainly ascribed to threats against infrastructures and vital functions. At societal level, Finland describes vulnerability in terms of security/insecurity as a subjective understanding of one's own vulnerability. Vulnerabilities vary according to groups and are affected by factors such as age, gender, and living environment (Heiskanen, 2002: 180-187). Vulnerable socio-economic status, which may include, for example, belonging to an ethnic minority, low levels of education, precarious labour market status and low income, are associated with a higher sense of insecurity (Laurikainen and Nikkanen, 2020). Accordingly, the Finnish Institute for Health and Welfare outlines that vulnerable groups do not have the same opportunities as the mainstream society due to factors outside their own influence, such as age, employment, migration status, disabilities and chronic diseases, mental and substance abuse and ethnicity, like the Roma group (Finnish Institute for Health and Welfare, 2018).

Within Finnish statistics, we find slightly different groups, such as elderly (65+ years) living alone, young adults in an urban environment - the so-called Not in Education, Employment, or Training (NEETs), low-income/low-educated households, homeless people and undocumented migrants. The growth in the number of elderly will accelerate in Finland in the next few decades (Statistics Finland, 2019). The quantity of elderly will mostly raise in large cities, where most of them will be ageing in apartments, being less prone to leave their households for other places. In addition, elderly can lack social networks or family connections or they have become invisible for service providers, authorities, NGOs and rescue organisations.

According to Statistics Finland, in 2018, the proportion of the NEETs among the age 20-24 was approximately under 12%. The share of 20-24 year olds without a tertiary qualification is still significant, although the trend has been declining (Official statistics of Finland, 2020). Low-income people accounted for 12.1% of the population in 2017 (Statistics Finland's Living Statistics, 2017. Due to their economic situation, these people are less prepared in case of a crisis (Kekki and Mankkinen, 2016). There are about 5500 homeless people in Finland. Most of the homeless are people without a house, but able to temporarily staying with relatives and acquaintances. They live mainly in large cities (ARA, 2018). Undocumented migrants are people living in Finland without the legal right to do so. It is estimated that there are between 3,000 and 10,000 undocumented immigrants in Finland although the estimations vary (www.paperittomat.fi). Their number has increased sharply since 2015, due to the so-called migration and refugee crisis. They form a particularly vulnerable group whose living conditions is exacerbated by diseases, general poor health conditions, poor or non-existent housing and poverty (Jauhiainen et al., 2017; Nykänen et al., 2017).

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4.3 Vulnerability and vulnerable groups in Norway

Within the context of crisis, disasters and resilience, Norwegian policy documents describe vulnerability as "an expression of the problems a system experiences when it is exposed to an

unwanted event and problems associated with resuming its functions" (NOU 2000:24, 2000: 18). The same definition is elaborated by the National Risk Assessment Report as it follows: "Vulnerability refers to the problems a system has to properly work when it is exposed to an unwanted event, as well as to the problems the system has to resume its functions" (DSB, 2019:28). A system encompasses infrastructures, value or production chains, organizations or a community at local, regional or national level. The vulnerability of a system affects both the probability that an unwanted event will occur and what consequences it will provoke. The same report states that vulnerability is the opposite of resilience, which is defined as a "general and dynamic ability to manage stress, and resume original functions" (DSB, 2019: 28). On the other side, there is no official definition of vulnerable groups. The term vulnerable groups is used only once in a procedure document by the Norwegian Directorate for Civil Protection (DSB) for the development of comprehensive Risk and Vulnerability Analysis (RVA) for Municipalities and is not clearly defined, although the protection of vulnerable groups is considered one of the critical functions of society (DSB, 2018). However, by surveying various governmental agencies, we found the extent to which vulnerable groups are relevant for good practices and in need for targeted policies. Groups, such as immigrants, children and elderly, are singled out and considered to be the responsibility of various agencies. The vulnerability of these groups seems very much based on the social model of disability, which distinguishes two dimensions: 1) the impairment, which is the physical, mental or emotional condition of an individual and 2) the disability, which is a potential consequence of how society deals with this condition (Johnstone, 2006). Still, there is little research on vulnerability and vulnerable groups in the context of crises and disasters. While there is no official definition of the term vulnerable groups, there is a special attention to children and women in Norway, more than in Estonia and Finland. Gender is often mentioned in the Norwegian documents as a vulnerability factor.

4.4 Vulnerability and vulnerable groups in Sweden

As in Norway, vulnerability is defined at systemic level in Sweden. Indeed, the Swedish National Audit Office describes it as a system's (in)ability to function when under stress (NAO, 2008). There is no general agreement on how to define or identify vulnerable groups in Sweden, and so the process of mapping and analysing vulnerable groups has been approached in different ways in various contexts. One example is related to the implementation of the 2030 Agenda, where Statistics Sweden makes a connection between the principle of leaving no one behind and the issue of measuring progress towards this aim. The 2030 Agenda states that all forms of poverty and hunger should be eradicated, while human potential, dignity, and equality should be achieved. These commitments imply that countries should identify, prioritize, and create better conditions for the most vulnerable groups in society. The 2030 Agenda specifies a number of factors to identify these groups, such as age, income, gender, race, ethnicity, migratory status, disabilities, geographic location, as well as other indicators relevant to national contexts (UN, 2015). While the current data collection in Sweden does not allow for a breakdown that captures different segments under all these categories (for example due to legal, resource, and ethical concerns), there is an ambition to better cover these aspects in the future to identify and make more visible vulnerable groups (SCB, 2019). For instance, the study Individual's ability to take responsibility for his or her own safety - Particularly vulnerable groups (MSB, 2015) points to the need to understand the underlying factors explaining why individuals might not be able to take full responsibility for their

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security in times of crises. The study stresses that these factors often are interrelated, and that they change over time and are context specific. Thus vulnerabilities are dynamic and not static. These factors include financial situation, health, social networks, place of residence, ability to cope with stress, and access to information technology. The study also suggests that the following groups might be particularly vulnerable in a Swedish context: people with disabilities, dementia, and psychological issues, people that do not speak Swedish or English, those who are socially isolated, live in an environment that is unsafe, or belong to stigmatized groups, as well as ethnical minorities, some migrant groups, and people who suffer from different forms of addiction (e.g., drugs, alcohol).

5. Discussion

In this part, we take into account the national definitions of vulnerability and the categories of vulnerable groups along three examples that show how the intersectionality perspective can contribute to offer a more nuanced mapping of social vulnerability, which overcomes binary categorisations of vulnerable groups. We, then, discuss these results within the context of the COVID-19 pandemic.

To some extent, Sweden avoids generalisations about vulnerable groups in the reports and documents we analysed and focuses more on the underlying factors of vulnerability, which are fluid. In Norway, it was difficult to find a definition of vulnerable groups, perhaps since Norway focuses on individual and group's abilities to withstand a negative event and these are not necessarily determined by age, gender or socio-economic conditions. Finland and Estonia provide a more standard categorisation of vulnerable groups, based on socio-economic factors.

We take the elderly as one of the typical vulnerable groups mentioned in all the four countries. They are considered in need of particular care due to health or economic conditions. Within this group, we can have a variety of individuals, ranging from the healthy 70 years old male Norwegian with a house of property and not suffering from any socioeconomic weakness to the 68 years old female woman of Pakistani origin with a disability living in a small flat. Are they subsumed under the vulnerable group label only because of their age? The woman probably feels that the welfare system in Norway (or in Sweden) gives her what she needs, but at the same time, she may experience discrimination and a lack of access to appropriate resources within and outside of her family and ethnic community on the basis of her disability, for instance, if a crisis unfolds. Are, then, these two individuals meant to be considered vulnerable in the same way? We argue that, empirically, the elderly are disproportionally often - but not per se - subject to increased vulnerability. However, speaking of the elderly as a homogenous vulnerable group is a form of stigmatization that needs to be justified by the advantages of doing so. It helps, statistically, to know that aging population means structural changes in a society and this knowledge is useful to formulate political choices, such as constructing more retirement homes or provide targeted services for this type of population when a crisis occurs. At the same time, we need to scrutinize in how far governmental reports produce the understanding of vulnerability they actually want to tackle.

Another example is given by immigrants, a vulnerable group mentioned in Finnish, Norwegian and Swedish documents. An immigrant without documents can be, at the same time, homeless and young. He/she can face discrimination because of his/her age, legal and housing status. In case of a crisis, do national and local authorities have contingency plans to address his/her vulnerability or, by treating immigrants as a homogenous group, are vulnerabilities exacerbated? The intersections of multiple identities transform the oppressed and privileged aspects of each individual layered and interlocking identities.

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As these examples show, vulnerabilities are not only situation dependent, but also refer to (national) context they are described in. This raises two further questions. On the one hand, how do we combine these specific contexts to a broader idea of assessing vulnerability in European disaster risk management? The countries considered in this article frame and describe vulnerability quite differently. Therefore, it can be possible that certain vulnerability dimensions are not discussed in some countries. The dimensions of vulnerability intertwine in such ways that, especially when looking at 'typical' or 'predefined' vulnerable groups, we need to challenge our understanding of vulnerability and reflect more on the multiplicity of intersecting traits an individual possesses. In this vein, intersectionality becomes a useful perspective to assess vulnerability as a dynamic phenomenon and helps to unveil groups that are rarely mentioned or not mentioned at all in official surveys and documents, avoiding generalisation or, even worse, stigmatisation. One way of combining contexts and avoiding generalisations is by not inserting people in one group or the other, but by recognising that social groups are a mix of social variables. Using intersectionality with the various underlying factors of vulnerability described in the empirical part means to consider these same factors as “intersecting traits” (Vickery, 2018: 136) as these factors are context specific, interrelated, and dynamic in nature. Intersecting traits differentiate within groups by making individuals belonging to a given group subject to his/her own unique vulnerabilities.

Since intersectionality distinguishes vulnerability as the result of societal (power) relations, it is highly useful to analyse those factors that cause injustices and discriminations and finally prevent people from being emancipated (in the sense of being freed from personal hardship). However, this should not be limited to a specific national context. The strength of the intersectionality perspective to go beyond category limitations also offers the chance to scrutinise categories beyond national borders. For instance, elderly people might be vulnerable due to very different secondary dimensions in different countries, which can only become visible if this multi-dimensional perspective is taken. We argue that an individual may, indeed, be classified according to several factors of vulnerability at the same time, a multiplicity and fluidity of identities and experiences which make him/her more or less vulnerable. Figure 1. below illustrates this point.

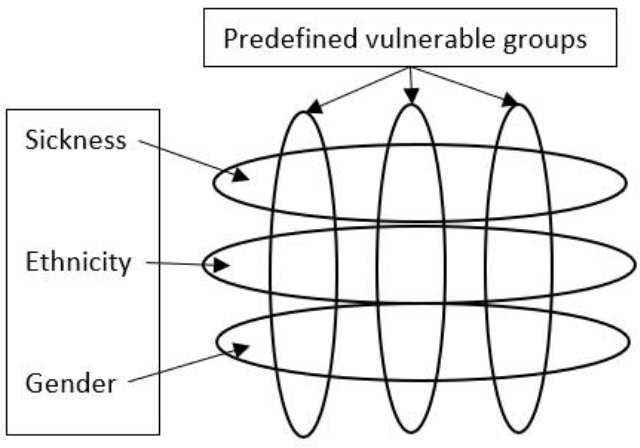

Figure 1: Using intersectionality to reach a deeper understanding of the typical and predefined vulnerable groups.

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The insight that vulnerability is an intersectional phenomenon with a dynamic dimension makes it hard for crises and disaster managers and for policy makers to anticipate who might need help most urgently in a given situation, making planning very challenging. As presented in the beginning, following Tierney, Hilhorst, Bankoff, Wisner and others, vulnerability should be considered a situational and relative phenomenon (Hilhorst and Bankoff, 2004: 2–3), which is depending on the actual exposure and the interplay between external circumstances and personal conditions. This raises the second question: how to operationalize dynamic vulnerability for disaster risk management purposes? To answer this question, we propose a twofold approach: First, to understand vulnerability as a dynamic phenomenon, still allows to define vulnerable groups, according to certain categories, such as the elderly. Second, the intersectionality perspective can help to problematize how vulnerable groups are defined and classified in the official data. If we approach vulnerability through intersectionality and, thus, we take a closer look at the factors of vulnerability impacting that group, the description of being vulnerable becomes merely a snapshot of a specific situation, which is likely to be the case. In addition, the issue of exposure adds a further dimension in discussing groups through the intersectionality perspective, since exposure helps uncovering those groups rarely or not at all mentioned in official data. Finally, what both the dynamic understanding of vulnerability and the intersectionality perspective aim to is to show that vulnerability is a product of situations people are living in. Wisner et al. call this vulnerable situations (Wisner et al., 2004). As these situations are to a large extent socially (re)produced, they can be transformed by social action and do not have to be dealt with.

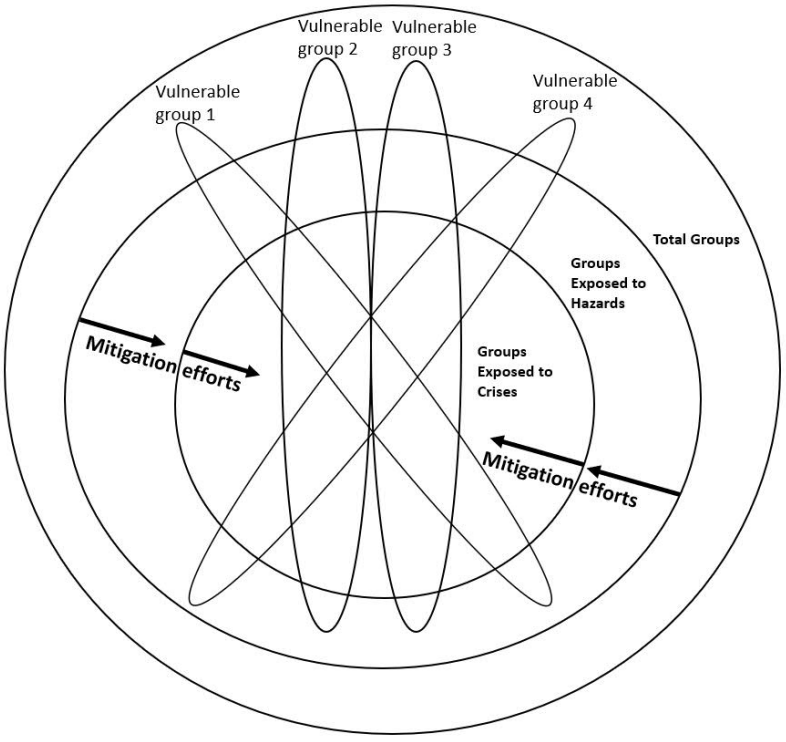

Figure 2: Model for framing vulnerable groups, hazards and crises through the intersectionality perspective

Vulnerability, when defined within a group, is based on factors such as age, income and so on, but those do not exclude that an individual within that group can be considered more or less vulnerable in shifting contexts, as shown in figure 2. In this figure, the population of a society is, in varying degrees, exposed to hazards and crises. Mitigation efforts by risk and crisis managers can reduce

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exposure, but the model shows the necessity of understanding that the factors that make different groups vulnerable can overlap according to the context. An individual who belongs to a certain group is vulnerable not simply because he/she is categorised in that group a priori, but because his/her identities have different impacts and influences at individual and societal level. In addition, intersectionality helps avoiding homogenisation of individuals within and between groups. The figure exemplifies the necessity of context sensitive societal analyses, which take into account the variations of elements of vulnerability in different countries.

The COVID-19 outbreak, in this vein, has showed that elderly and people with pre-existing health problems are two vulnerable groups within which an individual may be classified according to several factors of vulnerability at the same time, a multiplicity and fluidity of identities and experiences which make him/her more or less vulnerable. There are old people still in good health conditions, able to move and knowledgeable in new technologies. Others are more exposed to the consequences of the pandemic, since they need home services, which are not possible in times of social distancing. Ethnicity seems to be a factor that exacerbates injustice and discrimination, since elderly belonging to the Afro-American community in the USA, for instance, are more vulnerable and pay a higher price in deaths. In addition, the COVID-19 outbreak has unveiled that categories not considered vulnerable are, indeed, very much at risk causing serious societal and economic consequences: doctors, nurses, and hospital personnel have been sick and several died due to the exposure to the virus. Being a slow-burning crisis, this pandemic has uncovered, on the one side, that social vulnerability is of interest with regard to certain groups, typically considered vulnerable. On the other side, social vulnerability should also have been considered through the lenses of the intersectionality perspective before the outbreak to detect new types of vulnerability.

Conclusions

This article promotes a more systematic application of the intersectionality perspective in studying social vulnerability, which can provide risk and crisis managers with new insights on social vulnerability. Indeed, intersectionality can offer a more nuanced mapping of social vulnerability and thereby overcome binary categorisations of vulnerable groups. In addition, intersectionality sheds light on how vulnerability is shaped by a complex set of factors, some of them are stable characteristics of a group, while some others are context specific.

We argue that the intersectionality perspective should be applied as guiding principle in risk and crisis management, using, for instance, the model presented above in figure 2 to find the over-lapping segments of vulnerable groups during crises. This can lead to an increase of the number of potential vulnerable groups in society and new ways they might overlap. However, this can make the work of crisis managers more difficult and challenging. In addition, by applying the intersectionality perspective, policy makers should be able to improve data on vulnerable groups, take more specific and targeted actions in crises to protect them and formulate better and more targeted legislations. Within the crisis and disaster risk management, this is relevant in everyday prevention initiatives, but particularly when a crisis unfolds

In this endeavour, research plays a major role in providing studies about vulnerability in crises where intersectionality is constantly applied. Further research is needed to enable in-depth breakdowns of the data to move beyond categories such as elderly, children, migrants and women when analysing vulnerabilities. Research can provide a better and more nuanced picture of vulnerabilities and vulnerable groups to help national and local authorities and agencies to formulate specific guides, to hire staff with skills necessary to meet particular needs, to inform vulnerable groups in a particular way taking into account the differences that may coexist within the same group. In this vein, we argue that research should focus on 1) self-perceived vulnerability

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of individuals and intersectionality approach to unpack vulnerable groups; 2) cases on crises according to the level and/or likelihood of individual exposure to hazards to better nuance issues of vulnerability.

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