Investigating the association between discrimination and health among sexual- and gender minorities in Europe.

Master thesis

DDM Social Demography

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S2732157

Place and date: Groningen, December 31st 2023

Word count: 19,533

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Acknowledgements

The submission of this thesis means that my time of being a student will be over. Throughout my studies, I've had the pleasure to academically enrich myself in a multidisciplinary environment. The completion of my bachelor's degree in Geography and Planning has led me to enroll in the Social Demography double degree program. This has been a great decision I will never regret and I could not be more excited to complete this degree and use it in the future.

First of all, I want to thank everyone involved in the process of helping me write my thesis. My supervisors in particular were important. I want to thank Dr. Tobias Vogt for his willingness to be my supervisor when I needed a new one. In the process of transitioning from a draft version to a final version, he provided great feedback and was instrumental in shaping my research to be thorough and methodologically sound. I want to thank Dr. Clara Cortina as well for her useful feedback and patience throughout the entire process. Even though the submission of my thesis took longer than normal, she was always ready to help, which I very much appreciated. I also want to thank Dr. Roberta Rutigliano for her guidance in designing this thesis and its methods. Without her help, it would have been much harder to write a feasible thesis on health among sexual- and gender minorities.

Next to thesis supervisors, I also want to thank dr. Billie de Haas in her role as program coordinator of the Population Studies master program. She encouraged me to keep trying and to stay engaged in the thesis writing process during some tough times.

Finally, I want to express my gratitude towards my family and friends who managed to keep me motivated to finish my thesis. They have been more than supportive throughout this entire process and I could not have wished for a better support system.

Since this thesis topic is near and dear to my heart, I am looking forward to others reading my work and hopefully learning something worthwhile.

Jeffry Nijhof

Abstract

The vulnerability of sexual- and gender minorities in health, especially in relation to discrimination, has been well-established by previous studies. However, the differentiation between sexualities and gender identities and their respective roles in the discrimination-health association remains unclear. Additionally, this study aims to investigate multiple discrimination and the nature of its association with the health of LGBTQIA+ individuals. By means of the EU-LGBTI II dataset, this study executed multiple generalized ordinal logistic regression models to explore the associations between (multiple) discrimination and health for sexual- and gender minority individuals. The results indicated that differences in (the number of) forms of discrimination are significantly associated with health. Although more forms of discrimination lead to a stronger negative association between discrimination and health, the effect of an additional form of discrimination attenuates. The sexual- and gender minorities with the worst health outcomes are individuals with sexualities categorized as other, as well as genderqueer/-fluid/agender/polygender individuals. However, despite some significant outcomes, this study fails to pin down certain sexualities or gender identities as mediators in the association between discrimination and health. Further research should specify forms of discrimination other than sexuality and gender identity, as well as investigate the role of coping in the discrimination-health association.

Keywords: Discrimination, health, sexual- and gender minorities, multiple discrimination, intersectionality.

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List of abbreviations

APA	American Psychological Association
CIJ	Center for Intersectional Justice
ENAR	European Network Against Racism
EU	European Union
FRA	Fundamental Rights Agency
GOLR	Generalized ordinal logistic regression
HIV	Human Immunodeficiency Virus
LGBTQIA+	Lesbian, gay, bisexual, transgender, queer and/or questioning, intersex, asexual and/or ally. The '+' acknowledges the existence and inclusion of other deviant identities.
NBGQ	Non-binary/Gender queer individuals
OR	Odds ratio
PO	Proportional odds
PPO	Partial proportional odds
PTSD	Posttraumatic stress disorder
SES	Socioeconomic status
SGM	Sexual- and gender minorities
SMW	Sexual minority women
STD/STI	Sexually transmitted disease/Sexually transmitted infection
UK	United Kingdom
WHO	World Health Organization

1. Introduction

1.1. Problem statement

Ever since the year 1948, discrimination has been included in global and continental legislative frameworks such as the Universal Declaration of Human Rights and the Treaty on the Functioning of the European Union (United Nations, 1948; Official Journal of the European Union, 2008). Despite these efforts to tackle the phenomenon, there is still plenty of evidence which attests to the prevalence and incidence of discrimination within Europe. Several scholars confirm the incidence of, for example, ethnic, age and sexual orientation discrimination (Stefan et al., 2018; Rychtariková, 2019; Ozturk, 2011). Moreover, it is not ruled out that individuals will experience discrimination based on more than one aspect of their identity. Within academia known as multiple discrimination, its manifestation causes certain individuals to be more prone to experiencing a double or cumulative disadvantage (Council of Europe, 2016). An explanation for the presence of discrimination despite relevant treaties, is that discrimination is a phenomenon that is hard to measure and to police on. Following this, designing legislation which effectively prevents it, is difficult as well. Additionally, the European Union (EU) does not provide universal protection against discrimination as is shown by Orzechowski et al. (2020). They identified a lack of EU secondary law on preventing discrimination on the basis of gender identity, sexual orientation and religion. Moreover, European legal frameworks are not equipped to deal with multiple discrimination according to Fredman and CIJ-ENAR (2016; 2020). They point out that certain forms of discrimination (e.g., gender) are not fully recognized yet in order to effectively combat discrimination in practice. Additionally, the lack of recognition of the intersectional nature of discrimination causes certain discriminatory patterns to be overlooked and underestimated. Consequently, the structural lack of protection from discrimination for certain population subgroups causes these groups to be vulnerable in several aspects of life, one of which is their health (Pavalko et al., 2003; Pascoe & Richman, 2009; Orzechowski et al., 2020).

The inverse association between discrimination and health has been confirmed by Pascoe & Richman (2009). They found that the main pathway in which discrimination affects health, is through resulting stress responses. Two population subgroups that are subject to experiencing discrimination, that are not universally protected, and that exhibit significant differences in their health in comparison to the general population, are sexual minorities and gender minorities. Bachmann and Gooch (2018) found a depression prevalence of 52 per cent among British LGBTQIA+ people, in addition to a prevalence of self-harm in a range of twelve to forty per cent. According to Medley et al. (2016), the prevalence rates for sexual minorities are twice the size of the prevalence of mental health conditions among heterosexual individuals. Over and above that, Wanta et al. (2019) state that the prevalence of mental health conditions for transgender adults is almost four times the size of the respective prevalence among cisgender individuals. Other

vulnerabilities of sexual and gender minorities in terms of mental conditions, in comparison to the general population, have been identified in experiencing PTSD, isolation, substance use disorder, anxiety and suicidal thoughts (Barboza et al., 2016; Denton et al., 2014; Dworkin et al., 2018; Hafeez et al., 2017; Reisner & Hughto, 2019). With regard to physical health, sexual- and gender minority (SGM) individuals have a higher risk of suffering from cardiovascular diseases, obesity, diabetes, disability, hypertension, dermatitis, arthritis, cancer, intestinal problems and insomnia (Bränström et al., 2016; Fredriksen-Goldsen et al., 2012; Hafeez et al., 2017; Streed et al., 2017). Due to the increased likelihood of experiencing health conditions, scholars have found that the consequences of discrimination for the health of LGBTQIA+ individuals can be severe. Meyer (2015) and Lick et al. (2013), state that minority stress, as a result of discrimination, creates and adds significantly to the exposed health disparities between SGM individuals and heteronormative and cisnormative individuals.

This study's intention of investigating discrimination is by looking at its consequences for and association with self-reported health for sexual- and gender minorities. Even though scholars previously confirmed the existence of such an association, this study intends to investigate whether the respective association holds up in a European context as well. Even more, this study differs from other studies by addressing the under investigation of differences in health between separate sexualities (e.g., gay, lesbian, bisexual, other) and gender identities (e.g., cisgender, transgender, non-binary, genderqueer, other). The use of sexuality and gender identity in this study also enables the investigation of whether sexuality and/or gender identity act as a mediator in the association between discrimination and health. Additionally, this study aims to investigate whether belonging to multiple minority groups leads to a difference in the association between discrimination and health. This study distinguishes itself from other studies on multiple discrimination by focusing on the changes in association with health for individuals with a varying number of forms of discrimination involved in their discriminatory experiences. The acquisition and deepening of knowledge on the influence that (multiple) discrimination can have on the health of individuals with deviant sexual orientations and gender identities can improve our understanding of this association, enable policymakers to design tailored interventions and raise societal awareness.

1.2. Academic and societal relevance

The vulnerability of (European) LGBTQIA+ individuals in terms of health, acts as the starting point for both academic and societal relevance. The absence of protection in the legal frameworks of the EU, in combination with the under investigation of LGBTQIA+ related issues and the excessive health disadvantages faced by the LGBTQIA+ community, explain the need for more detailed research on this

particular topic. Contrary to previous studies by, for example, Meyer (2003) and Lick et al. (2015), this study will be comparing sexual- and gender minorities with each other instead of to hetero- and cisnormative individuals. As a result, this study enables the prediction of health for separate sexualities and gender identities. However, more interestingly, it opens up the possibility of exploring the health disparities between sexualities and gender identities. Moreover, given the fact that this study's dataset, after customization, is comprised entirely of SGM individuals, this study adds to existing literature by investigating whether one's sexuality or gender identity mediates the association between discrimination and health. Consequently, this potentially exposes the role of separate sexualities and gender identities in the discrimination-health association. This study also possesses academic relevance due to the inclusion of multiple discrimination through the lens of intersectionality. Despite a growing number of scholars who have confirmed the existence and implications of multiple discrimination, few have applied the concept of intersectionality. The absence of an intersectional approach in investigating multiple discrimination and health directly translates to a lack in comprehensiveness of the respective study. This study distinguishes itself by investigating the differences of the respective associations for individuals with varying discriminatory experiences in terms of the number of sociodemographic characteristics that someone is being discriminated against for. This way, the contribution of an additional minority group in the association between discrimination and health can be explored. The subsequent results and respective conclusions are valuable for discrimination, health and minority research fields.

Considering the absent comprehensive protection from discrimination in European legal frameworks, the results of this study have the potential to inform lawmakers on the necessity of providing additional intersectional and structural installations of legislation when it comes to discrimination. Moreover, this study's results on the vulnerability of certain sexualities and gender identities, as well as the implications of intersectionality in discriminatory experiences, have the potential to act as a basis in designing legislation and policy interventions that are tailored to the needs of the minorities featured in this study. This is not only relevant on a European scale, but on a national level as well. Even if the national legislation of a country offers comprehensive protection to all minority groups with regard to discrimination, the results of this study can prompt national or local governments to increase their efforts in tackling discrimination. Another factor that can add to governments' willingness and preparedness to tackle discrimination, which is of societal relevance as well, is awareness. The results of this study have the potential to inform the general public. According to a GLAAD report (2015), the negativity in people's attitudes toward LGBTQIA+ individuals decreases as they are more aware of the position of SGM individuals in society. This can, in turn, lead to a lower prevalence of discrimination, better general treatment and the spread of awareness to others. Finally, the results of this study have the potential to improve the general, medical and professional treatment of

LGBTQIA+ individuals. This study's results on the vulnerable position of certain sexualities and gender identities, as well as individuals experiencing multiple discrimination, has the potential to inform certain professionals, such as health care workers, on how discrimination is associated with one's health. Following this, it enables them to identify these vulnerable population subgroups and subsequently design treatment plans that are tailored to the needs and experiences in life of certain minorities. The societal relevance in understanding SGM individuals and the challenges and barriers in their lives is not limited to health care workers, but applies to other professions as well (e.g., teachers).

1.3. Objective of the study

This study's objective is to investigate the association between health and discrimination within the LGBTQIA+ community. First, this study will explore the differences in health of all sexualities and gender identities that the data of this study permitted. Second, this study will investigate whether perceived discrimination is able to predict self-reported health and to what extent this association differs for individuals with other or no discriminatory experiences. Third, this study will investigate whether separate sexual- and gender identities mediate the association between discrimination and health. Finally, this study aims to differentiate between the number of forms of discrimination involved in one's discriminatory experiences, to ultimately investigate the association between multiple discrimination and health, and the nature of this relationship (i.e., additive, multiplicative, or inuring). Consequently, the following research question has been put forward:

'What is the *association* between *self-reported health* and *perceived discrimination* among *sexual- and gender minorities* in Europe?'

As a means to decomplicate the main research question and to address the research objectives mentioned above, several sub-questions have been formulated:

1. What are the health disparities amongst separate sexualities and gender identities?
2. Is perceived discrimination able to predict self-reported health among European sexual- and gender minorities?
3. To what extent does the prediction of health for individuals who experienced SGM discrimination differ from those of individuals with other or no discriminatory experiences?
4. Are sexuality and/or gender identity able to significantly mediate the association between discrimination and health?

5. How does the association between discrimination and health differ for discriminatory experiences with a varying number of forms of discrimination?
6. What is the nature of the association between multiple discrimination and health?

Upon answering these research questions, several relevant sociodemographic characteristics, rooted in previous research, will be taken into account as a means to isolate perceived discrimination and self-reported health to, ultimately, predict their association.

1.4. Structure of the thesis

As part of the process to obtain an answer to this study's research questions and satisfy its objective(s), this thesis goes through several steps. First of all, chapter two presents the theoretical framework, which is necessary to build a sound basis for the study's hypotheses, as well as for the rationale behind the choice of statistical methods. For this particular study, the theoretical framework delves deeper into the concept of discrimination and it presents a literature review on the topic of discrimination, health and sexual- and gender minorities. Additionally, it explores the concept of and research on multiple discrimination. Finally, it shines a light on theories that help explain the association and mechanisms between discrimination and health, which are ultimately expressed in a conceptual model. The theoretical framework is followed by the data and methods section, which is laid out in chapter three. This section reveals the process from the selection of data to the execution of statistical models. All relevant outcomes of the statistical analysis will be presented in the results section (chapter four). Finally, chapter five provides a discussion and conclusion. In this chapter, the results will be contextualized and synthesized in order to answer the research question and discover the meaning behind the results. Furthermore, the chapter will provide the strengths and limitations of the study, as well as future research recommendations.

2. Theoretical framework

2.1. The concept of discrimination and its various dimensions

One of the most common definitions of discrimination originates from the American Psychological Association (APA) (2019, p.1), namely 'the unfair or prejudicial treatment of people and groups based on characteristics such as race, gender, age or sexual orientation'. Even though this definition fails to include other characteristics that discrimination can be based on, scholars call attention to two important components, which are *differential treatment* and *disparate impact*. The former refers to different treatment based on an individual's characteristics, which is likely to lead to disadvantages for individuals sharing these characteristics. The latter does not necessarily involve fair or unfair treatment, but focuses only on (disparate) outcomes (Reskin, 1998; Blank et al., 2004). Discrimination distinguishes itself from prejudice and stereotypes by its focus on behavior. Prejudice and stereotypes are often caused by one distinctive factor, and while discrimination can be fueled by prejudice and stereotypes, discrimination is not limited to one unique cause (Quillian, 2006; Pager & Shepherd, 2008). On the account of why people engage in the act of discrimination, APA underscores the multifaceted origins of discrimination. Humans are found to have a natural inclination to stick labels to people and categorize them. At the same time, discrimination is a reflection of a range of factors, such as 'economic circumstances, cultural practices, history, and social trends' (APA, 2016).

Discrimination occurs in several forms and to various degrees. Following this, discrimination does not necessarily occur on a singular ground, occasion or level. The concept of multiple discrimination recognizes the possibility of discrimination occurring on multiple grounds, as well as the respective (cumulative) harmful effects (United Nations, 1995; Council of Europe, 2016). Within the concept of multiple discrimination, there are various ways in which discrimination can take place. First, sequential multiple discrimination refers to an individual being discriminated against on the grounds of two or more characteristics at two or more different occasions. Second, additive multiple discrimination refers to an occasion in which an individual is being discriminated against on two or more grounds but during the same occasion. Third, intersectional discrimination refers to the occasion in which two or more grounds of discrimination interact in a way that produces distinct forms and effects of discrimination (Council of Europe, 2016). Not only can multiple discrimination take place in several forms, according to previous research multiple discrimination can also affect health in multiple ways. The additive effect of multiple discrimination on health entails that each additional form of discrimination will add in a similar fashion to the resulting health effects. The multiplicative effect of discrimination implies that an additional form of discrimination will impose stronger (negative) health effects due to the presence of another form of

discrimination affecting one's health. Finally, the inuring effect of multiple discrimination suggests that the forms of discrimination experienced will cause an individual to, essentially, get used to the hardships resulting from discrimination (i.e., habituation effect) (Meyer, 2003; Moradi & Subich, 2002; Moradi & Subich, 2003; Szymanski & Gupta, 2009b; Szymanski et al., 2008; Raver & Nishii, 2010).

Despite current knowledge on the negative effects that discrimination can bring about, the degree to which forms of discrimination are combated and taken seriously greatly differs. Whereas some forms of discrimination, in certain areas of the world, are punishable by law, others are prone to be overlooked and neglected. In Europe, the recognized forms of discrimination are set out in Article 21 of the EU Charter of Fundamental Rights. This respective law expresses that 'any discrimination based on any ground such as sex, race, color, ethnic or social origin, genetic features, language, religion or belief, political or any other opinion, membership of a national minority, property, birth, disability, age or sexual orientation shall be prohibited' (Fundamental Rights Agency, 2000). However, even if there are prohibitive legal mechanisms in place, that does not guarantee equal protection in all member states. For instance, not all member states are guaranteed to take the protection of sexual orientation and gender identity as seriously as others, due to certain dominant ideologies (e.g., Hungary) (ECRI, 2023). Another explanation which underlines that legal protection often is not sufficient in combating discrimination, is the difficulty in gathering complete and objective data. The first barrier in gathering 'strong' data is the difficulty policing on discrimination. The complexity of providing evidence in cases of discrimination causes a significant share of data to go unreported. The second barrier originates from an individual's (forced) reluctance to report discrimination. Whereas some people experience shame, others do not recognize the importance of reporting the incidence of discrimination. Finally, the third barrier in gathering objectively strong discrimination data stems from the changing concepts in discrimination research. Systematic changes in definitions and concepts create confusion as to what incidences should be considered discrimination. Furthermore, the delay between the surge of new concepts and the respective implementation in legal frameworks causes data to be incomplete and outdated (Xenidis, 2018).

2.2. Literature review

2.2.1. Discrimination and health for sexual- and gender minorities

There are several ways in which health can be affected by discrimination for sexual- and gender minorities. The first, and main focus of this study, is through stress. There are numerous instances that can trigger a stress response within a sexual- or gender minority, both external and internal (Hatzenbuehler, 2009a). Various scholars have linked these stressors to the prevalence of depression, suicidality, self-harm, PTSD,

physical injury, STDs/STIs and cardiovascular diseases for sexual minorities in comparison to heterosexual individuals (Almeida et al., 2009; Andersen et al., 2015). Additionally, discrimination when accessing health care can have serious health effects for SGM individuals. Not only can discrimination in health care access lead to, for example, the refusal of treatment, but it can also hinder SGM individuals in seeking out health care or even cause them to avoid medical care (Williams & Rucker, 2000; Balik et al., 2019). Furthermore, discriminatory experiences can lead to unhealthy behavioral responses as well, such as substance abuse, risky sexual behavior and eating disorders (Bauermeister et al., 2014; Coulter et al., 2015).

Meyer (2003) underscores the impact of discrimination on mental health. They express that sexual minorities deal with the stress of existing in heteronormative environments, accompanied by prejudice and harassment, and not to mention issues regarding alienation, self-acceptance and a possible lack of community. Altogether, these components form a cumulative stress process that can lead to an excessive amount of mental health problems such as depression, anxiety- and panic disorders (D'Augelli & Hershberger, 1993; Meyer, 1995; Rosario et al., 1996; Lee et al., 2016). According to Bränström et al. (2016), the main risks in terms of physical health as a result of discrimination can be translated through a higher risk for contracting both symptoms and conditions. In this particular study, the former includes insomnia, pain and dermatitis, while the latter can include cardiovascular diseases, diabetes and hypertension. Other physical health complications may include higher risks of contracting respiratory disorders, arthritis and high blood pressure (Fredriksen-Goldsen et al., 2012). It is important to mention that the evidence above shows that the increased risk for symptoms and conditions is applicable to all sexualities (i.e., the sexualities included in previous studies). However, there are some discrepancies between the extent to which these symptoms and conditions will affect an individual with a certain sexuality. Namely, the vast majority of studies show that bisexual women, in general, form the most vulnerable population subgroup (Lick et al., 2013). In comparison to other sexualities, bisexual women are most prone to general poor health and chronic conditions, respiratory diseases, diabetes, hypertension and cancer (Fredriksen-Goldsen et al., 2012; Dilley et al., 2010; Cochran & Mays, 2007; Case et al., 2004).

The consequences of discrimination for the health of a gender minority are similar to that of a sexual minority in the sense that they, too, face bigger risks in terms of mental health and physical health. Despite a lack of research, most studies that included gender minorities in their models found comparable, if not worse, health effects resulting from discrimination (Fredriksen-Goldsen et al., 2014; Hsieh & Ruther, 2016; Magno et al., 2019). In comparison to cisgender individuals, gender minorities have been reported to be more prone to a poorer general health, obesity and mild cognitive impairments (Streed et al., 2017). Within the spectrum of gender minorities, DeSantis (2009) and Tan et al. (2019) stress the importance of mental health, as they found that transgender individuals experience discrimination that is more likely to be

psychologically harmful. Similarly, Reisner & Hughto (2019) identified mental health as the most significant health determinant for non-binary individuals experiencing discrimination as well. Streed et al. (2018), among other scholars, have identified transgender individuals as the most prone to negative health effects resulting from discrimination. Additionally, their study distinguished between gender conforming- and gender nonconforming transgender adults, with the latter reporting worse general health and mild cognitive impairments.

The second way in which health can be affected for sexual- and gender minorities is through health care access and quality. According to Williams and Rucker (2000), discrimination in a health care setting affecting SGM individuals can either occur consciously and actively, or subconsciously and without malice. Upon requesting health care, two main discriminatory behaviors can be identified, namely the refusal of providing treatment and discriminatory attitudes (Balik et al., 2019). The refusal to provide treatment to SGM individuals can have a significant impact on one's health, especially in dire situations (Bell., 2019). For transgender individuals in particular, the refusal of health care provision has been projected to have a disproportionate impact. Transgender individuals often do not have a choice in disclosing their gender identity, which means that they more frequently experience refusal in health care provision in comparison to other SGM individuals (Balik et al., 2019). Additionally, due to their heavy reliance on health care in order to authentically live their lives, refusal in health care access has been identified to have a bigger impact on their health (Bradford et al., 2013; Fay et al., 2011; Kattari et al., 2015; Reisner et al., 2015). Next to refusal, transgender individuals deal with discriminatory attitudes as well. Scholars have identified transgender individuals as the most prone to discriminatory attitudes in health care settings (Balik et al., 2019). It should be mentioned, however, that discriminatory attitudes have the potential to significantly affect other SGM individuals as well. Kass et al. (1992) and Risher et al. (2013) express that the stigmatization of HIV for men who have sex with men is a significant reason for them to experience discriminatory attitudes in healthcare settings. These attitudes are often followed by less-than-optimal healthcare provision and a fear of stigmatization during future visits. Not all SGM individuals necessarily experience discriminatory behaviors. For instance, the vast majority of sexual minority women (SMW) included in studies did not experience discrimination that affected their health care access and quality due to them 'passing' as a heterosexual individual (Mosack et al., 2013; Smith et al., 1985; Steele et al., 2006). Subsequent to the possibility of experiencing discrimination in healthcare settings, a common response and coping mechanism is the delay of addressing health care needs as a result of the fear of being stigmatized by health care personnel (Balik et al., 2019). Not only does the respective fear prevent them from seeking health care, it also prevents individuals from disclosing their SGM status, which could lead to less-than-optimal care due to specific health care needs (Balik et al., 2019; DeSantis, 2009).

In order to handle stress before it translates into health effects, minority groups, SGM individuals in particular, have been known to respond with resilience and coping (Meyer, 2003; Weinberg & Williams, 1974). In scientific literature, ameliorating factors generally have been divided in two categories, namely individual- and community-level resources. At the individual-level, confrontation, (self-)acceptance, cognitive reframing and avoidance are coping mechanisms that can effectively mediate the stressors emerging from discrimination. It should be mentioned that confrontation and avoidance are mechanisms with higher risk, as they could lead to retaliation and self-esteem issues, respectively (Meyer, 2003; Bry et al., 2017). In terms of community-level resources, scholars have identified three main coping functions. Firstly, a community can allow an individual to experience being in a social environment without (the fear of) discrimination and stigmatization. Secondly, a community consisting of individuals with similar experiences allows for shared evaluations and support (Jones et al., 1984). Finally, and related to the social evaluation theory (Pettigrew, 1967), members of a minority community can opt for within-group comparisons instead of between-group comparisons. The following reappraisal has the potential to lead to the validation of one's feelings and experiences, providing an individual with a significant source of support (Thoits, 1985; Meyer, 2003). Meyer (2003) states, however, that these ameliorating resources are not guaranteed. The effectiveness of individual-level resources is dependent on whether an individual possesses certain qualities and if these qualities are actually employed. The effectiveness of community-level resources depends on the presence of a community in one's vicinity. Even if there is a community present, the effectiveness of its resources is dependent on whether an individual is able to integrate into this community and if a community has the quality and ability to mediate the effects of discrimination and stigmatization (Meyer, 2003). There are coping mechanisms that have adverse health effects as well. Smart & Wegner (2000) have shown that coping by concealing one's SGM status can lead to a mental burden affecting health. Psychological processes such as these are part of the psychological mediation framework (Hatzenbuehler et al., 2009b). This theory entails that the stigma and stress received by minorities can shape one's respective responses in a negative way. Behavioral responses such as substance abuse, smoking and eating disorders have the potential to reduce stress, but these responses are likely to lead to an even larger negative impact on one's health (Parent et al., 2019).

2.2.2. Multiple discrimination and health

The concept of multiple discrimination recognizes the possibility of discrimination occurring on multiple grounds, as well as the respective (cumulative) harmful effects (United Nations, 1995; Council of Europe, 2016). From a logical point of view, it makes sense that an additional minority status will increase the likelihood of being discriminated against for an individual. Following this logic, more occurrences of

discrimination would lead to additional adverse health effects. Moreover, these grounds for being discriminated against are not necessarily independent actors, meaning it is possible there is reciprocal action between separate minority statuses in discriminatory experiences. The increase in health effects for multiply disadvantaged individuals to singly disadvantaged individuals is captured in the 'double disadvantage hypothesis' (Moncrief et al., 1991). Denise (2014) provided substantial evidence confirming the double disadvantage hypothesis. Their study showed a higher likelihood of suffering from depression and failing physical health when experiencing this phenomenon. Alvarez-Galvez & Rojas-Garcia (2019) focused specifically on multiple discrimination and its implications for one's mental health. They found an increased likelihood of experiencing depression as a result of multiple discrimination in comparison to single cause discrimination. Studies on multiple discrimination and physical health discovered similar findings, namely as the forms of discrimination that individuals are being discriminated against for increase, the negative health effects will increase as well (Bogart et al., 2013; Cormack et al., 2018). Moreover, the previously mentioned reciprocal action (i.e., interaction) between certain forms of discrimination could cause worse health effects. Even though there is a lack of research studying reciprocal action, certain minority statuses do consistently surface upon consultation of existing research. Bogart et al. (2011) and Velez et al. (2015) identified sexuality as a minority status that interacts with other forms of discrimination and, subsequently, adds significantly to the negative health effects. Other than sexuality, racial/ethnic forms of discrimination were found to interact with and add to other forms of discrimination (Stuber et al., 2003; Bogart et al., 2013).

In previous studies investigating multiple discrimination and health, scholars identified three ways in which the association manifests itself. The first manifestation or nature of the association between multiple discrimination and health, is additive. According to Mallory & Russell (2021), the additive hypothesis for multiple discrimination entails that the grounds for discrimination have their separate association with health and the simultaneous existence of these associations will lead to worse health outcomes. In their study, they found evidence that supports the additive hypothesis. Namely, they found that sexuality and race discrimination were linked to worse mental health (i.e., suicidal ideation). However, these grounds for discrimination have not been found to interact in a way that causes greater health effects in terms of suicidal ideation. This differs for the second manifestation of the association between multiple discrimination and health, which is referred to as multiplicative. This manifestation of multiple discrimination recognizes the possibility of separate grounds for discrimination interacting to, ultimately, produce stronger negative health outcomes. Whereas Mallory & Russell (2021) identified additive effects for suicidal ideation, they found multiplicative effects of multiple discrimination for depressive symptoms. Following this, race and sexuality discrimination significantly interacted, which led to stronger health effects. The third nature of multiple discrimination is referred to as inuring. Raver & Nishii (2010) found that as the grounds for discrimination

in an individual's experience increase, the power of these separate grounds in affecting health outcomes decreases. According to Consolacion et al. (2004), this is related to a phenomenon called the habituation-effect. It entails that individuals facing multiple discrimination have more experience in facing discrimination and coping mechanisms such as adjustment and flexibility. This explains the decrease in power of separate grounds for discrimination in predicting health. Dentato (2012) underlines this and adds that for SGM individuals in particular, the health effects of additional grounds for discrimination in one's experience decrease due to the possession of a more developed concept of 'self'. It entails that individuals with multiple social identities are more likely to have accepted themselves and have found confidence in these identities due to the frequent encounters of the sociodemographic characteristics that these identities are based on in one's life.

2.2.3. Sources of multidimensional deprivation

2.2.3.1. Age and sex

Several scholars have shown that there are multiple sources that can affect LGBTQIA+ health or play a role in the association between LGBTQIA+ health and discrimination. One of these sources is age. Research has shown that age possesses a confounding effect on the mechanisms between discrimination and health (Pascoe & Richman, 2009; Pavalko et al., 2003). Some studies have started to apply a developmental model to the association between perceived discrimination and self-reported health. In these studies, 'age' moved from a contextual factor to a main independent variable (Bränström et al., 2016; Bränström et al., 2022). Bränström et al. (2016) have shown that there are larger health disparities among SGM individuals at a younger age than at an older age. They explain this by referring to the theory that individuals at a younger age generally experience discrimination and its subsequent stress more intensely in comparison to individuals at an older age. In a more recent study, Bränström et al. (2022) found the strongest risk for mental health issues at a younger age. However, the respective effect did not differ much from the age effect at older ages, meaning that age seems to possess less explanatory strength for mental health and its association with discrimination.

Another factor that has been found to have a significant confounding effect in the association between discrimination and health within multiple studies (Bränström et al., 2016; Wanner & Pecoraro, 2023), is sex. The addition of sex as a confounding factor not only possesses the potential to associate significantly with health, but also possesses the potential to be significant in the association between discrimination and health. For instance, Hackett et al. (2019) found that women were more likely to report worse general and mental health as a result of discrimination compared to men, as well as lower life satisfaction scores.

Following this, women appear to be prone to a more negative association between discrimination and health, which translates to worse health outcomes. The addition of a sex- or gender-related variable in a study investigating discrimination and health is therefore important when considering an individual's experience in discrimination, as well as in the association with the outcome variable.

2.2.3.2. Socioeconomic status

Traditionally, socioeconomic status (SES) has proven to be an adequate and important determinant of health (Adler et al., 1994; Adler & Ostrove, 1999; Cutler et al., 2008). The main takeaway from these studies, is that individuals are more likely to assess their health positively if their SES is on a higher level. Studies on the moderating role of socioeconomic status in the association between perceived discrimination and self-reported health provided somewhat similar findings. Alvarez-Galvez and Salvador-Carulla (2010) point to a consistent finding, which is that individuals with a higher socioeconomic status are more likely to have a positive perception of their health, despite discriminatory experiences. One main mechanism explaining this finding is that individuals with a higher socioeconomic status have more resources to alleviate the stress response as a result of discrimination (Algren et al., 2018). However, even if a sexual- or gender minority individual possesses a relatively high SES, that does not automatically translate to the ability of using resources to alleviate the stress response following discrimination. This is due to the previously mentioned barriers that sexual- and gender minority individuals can face in, for example, accessing health care (Balik et al., 2019).

2.2.3.3. Geographical location

Tolerance and acceptance of SGM individuals is not guaranteed anywhere in Europe. However, there are significant differences between European countries and regions. Abrams (2010) attributes these differences to social norms, people's sense of social identity and their values. It is likely that a lack of support for SGM individuals is accompanied by a larger persistence of prejudice and discrimination (Eurobarometer, 2019). The presence of prejudice and discrimination in certain countries and regions might not add significantly to the effects of discrimination on an individual level, but the heterosexist environments it is accompanied by could potentially exacerbate the impact of discrimination on health on a collective level (Ahmed et al., 2007). Following this, the weight of geographical location for the hardship and health of sexual- and gender minorities, which flows from the underlying cultural and socio-political context rather than an individual's actual location, can have a confounding effect on the degree to which perceived discrimination is associated with the health of SGM individuals (Balik et al., 2020). One of few studies investigating and confirming the differences due to one's country of residence, theorizes that more developed European welfare states show a smaller negative effect of perceived discrimination on self-reported health for SGM individuals. They add

that more developed welfare states are characterized by a strong social security system, as well as frequent and sizeable social transfers (Alvarez-Galvez & Salvador-Carulla, 2010; Alvarez-Galvez & Rojas-Garcia, 2019).

2.3. Theory

In explaining the relationship between (perceived) discrimination and (self-reported) health, there are two theories which stand out. Before explaining the theoretical framework, it is important to mention that, in the context of discrimination, scholars often distinguish distal and proximal stressors. Douglass and Conlin (2020) refer to distal stressors as 'external prejudice events' and proximal stressors as someone's internal response. Distal stressors could entail acts of discrimination, whereas a proximal stressor could be a deteriorated self-image. In practice, distal stressors are often the trigger for proximal stressors to occur. Within this study, the role of distal and proximal stressors in perceived discrimination and self-reported health for sexual- and gender minorities will be explained through the minority stress framework. The dimension of multiple discrimination will be accounted for by the intersectionality framework.

2.3.1. Minority stress framework

The minority stress framework originates from the stress theory, which entails that the presence of discrimination and stigma may result in higher levels of both stress and conflict as a result of 'dominant social expectations and norms' (Allport, 1954; Goffman, 1963; Link & Phelan, 2001). Following the stress theory, Meyer (1995) added the sexual minority dimension. It mainly addresses the internalization of stigma or discrimination that sexual minorities can experience. Additionally, several scholars have applied the minority stress framework to gender minorities as well, especially in recent years (Poteat et al., 2014; Tan et al., 2019). As a result, the minority stress framework proposes an explanation for the health disparities experienced by sexual- and gender minorities (figure 1, appendix B). It entails that stress emerges from living in environments that are 'heterosexist' or 'cissexist' which is accompanied by stigma and discrimination in the direction of members of the LGBTQIA+ community. In this context, stigma represents a distal stressor that will likely trigger an individual to internalize these external negative expressions and subsequently create a proximal stressor. It is worth mentioning that proximal stressors do not necessarily need distal stressors as a trigger in order to function. Proximal stressors can emerge due to minority status alone as well. Whereas distal and proximal stressors in this context are unique to sexual- and gender minorities, general stressors (e.g. death, financial struggles) will add to the stress process as well.

Within Meyer's theory, there are two components that could act as modifiers in the stress process. The first component entails the 'general psychological processes' of both a minority individual and its community. Certain resources such as community support and coping can diminish the impact of the stress process on one's health. However, general psychological processes can add to the stress process as well. For instance, in order to cope with distal and proximal stressors, an individual can resort to substance abuse. The second component features the minority identity and its particular characteristics. These characteristics can both positively and negatively affect the stress process. An example of a minority identity characteristic that can diminish the stress reaction is resilience. It is likely that sexual- and gender minorities, in comparison to the majority population, have experienced more hardship and adversity in terms of discrimination. The exposure to these situations throughout one's lifetime could make sexual- and gender minorities more resilient to future acts of discrimination (Bry et al., 2017). The accumulation of stress or stress relief of all these factors is likely to create a stress reaction which will ultimately affect one's health.

2.3.2. Intersectionality

With its beginnings in Black feminism, the study of intersectionality started to gain recognition in the 2000s. Crenshaw (1992) found that discrimination measures systematically excluded the effects of discrimination due to the use of just one category. Following this, Hill Collins (2015) defined intersectionality as 'the critical insight that race, class, gender, sexuality, ethnicity, nation, ability, and age operate not as unitary, mutually exclusive entities, but rather as reciprocally constructing phenomena'. They added that an individual is not defined by its minority identity and characteristics, but the respective individual will always be accompanied by the latter. The rationale behind using the intersectionality framework is rooted in its ability to identify health inequalities (Bowleg, 2012; Green et al., 2015). In the context of this study, the framework of intersectionality refers to the possible cumulative negative effects experienced as a result of discrimination on the grounds of two or more characteristics. This means that at least one of the grounds of discrimination will be either sexuality or gender identity. The incorporation of intersectionality into the conceptual model will capture discrimination effects that otherwise would have been missed.

2.4. Conceptual model

This study's conceptual model, based on the minority stress framework and including an intersectionality framework, can be found below (figure 2). The starting point of the model is sexual- or gender minority status. Within the context of this study, the individuals who had a discriminatory experience were discriminated against for their sexuality or gender identity. As mentioned before, a discriminatory event can

bring about distal and proximal stressors. The effects of both distal and proximal stressors result into a certain amount of stress. It is important to note that these stressors were not operationalized in this study's efforts in investigating the association between discrimination and health. However, their presence in the conceptual model is warranted due to their respective role in the process of sexual- and/or gender minority discrimination leading to health effects. Next to these stressors, the model includes general stressors as well. Not only because it presents a more accurate depiction of the amount of stress experienced by an individual, but the addition of general stressors to the model also recognizes the fact that it is plausible for sexual- and gender minorities to experience more hardship as a result of general stressors than others. The effect of general stressors, as a result of contextual factors, is added to the amount of stress related to discriminatory experiences. Following this model, the stress experienced by a sexual or gender minority will be converted into health outcomes. However, before the stress leads to certain health effects, the conceptual model acknowledges the influence that coping or psychological processes can have on stress. As mentioned earlier in this chapter, the coping techniques an individual can employ in dealing with the stress of discriminatory events can lead to better but also worse health outcomes. This study was unable to operationalize coping due to a lack of data. However, again, the presence of coping in the conceptual model is relevant due to its possible role in converting stress into health outcomes. Another relevant component of this conceptual model is the sociodemographic characteristics of an individual. This component has two functions in this model. On the one hand, individual sociodemographic characteristics represent the grounds, other than sexuality and gender identity, for someone to be discriminated against. Following this, it is important to recognize these characteristics because their presence refers to the possibility of an individual dealing with intersectionality in their discriminatory experiences and thus possibly experiencing multiple discrimination. On the other hand, individual sociodemographic characteristics have an important role with regard to health. The presence of these characteristics (e.g., age, socioeconomic status) does not mean an individual is being discriminated against for these reasons. These characteristics, however, can significantly impact health outcomes and are therefore included in this conceptual model as a means to isolate the effects that individual sociodemographic characteristics can have on health and its association with discrimination.

As mentioned above, intersectionality can play an important part in one's discriminatory experiences. Within the conceptual model it was placed right underneath 'sexual- and/or gender minority' and is connected with the latter by an interrupted line. This implies that, if an individual is being discriminated against for additional reasons other than sexuality or gender identity, they are likely to have a different discriminatory experience from individuals who are being discriminated against for their sexuality or gender identity alone. More specifically and based on Meyer's framework, individuals experiencing multiple discrimination are more likely to undergo more intense discriminatory events, which is likely to lead to

exacerbated stress and ultimately worse health outcomes. This explains why intersectionality in an individual's discriminatory experience is placed at the beginning of the process in this conceptual model, even though its effects can be noticed throughout many components in the association between discrimination and health. In this model, the effects that intersectionality can have for an individual's process of discrimination are indicated by the arrow pointing to discrimination.

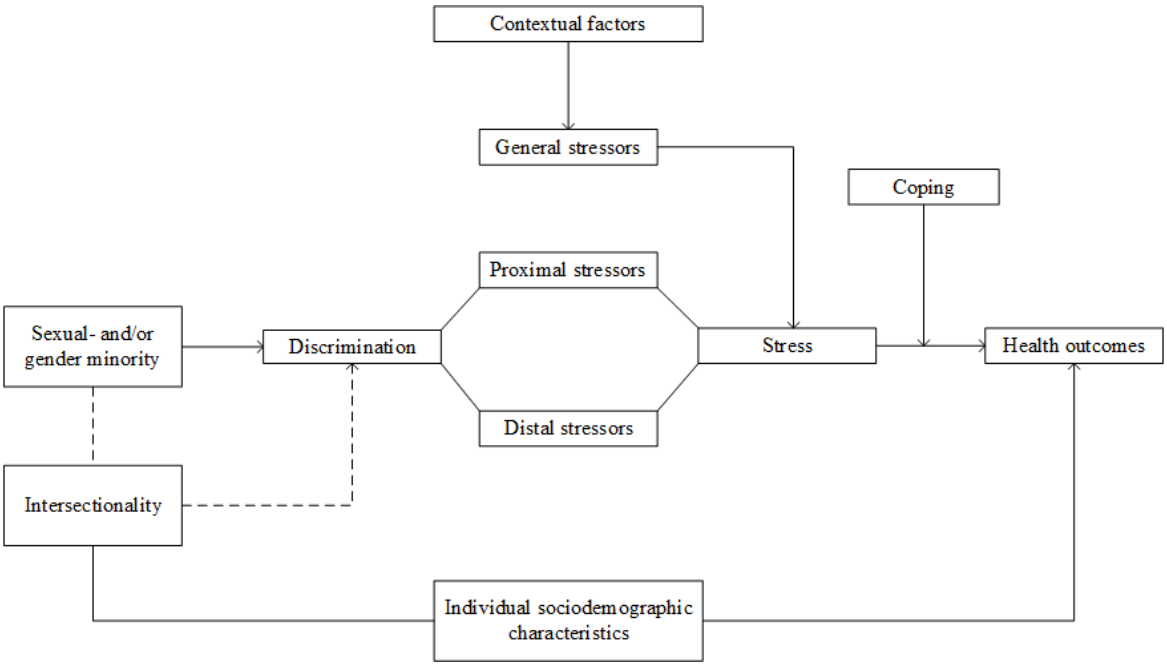

Figure 2: Conceptual model containing elements of the minority stress framework and intersectionality framework.

2.5. Hypotheses

This paragraph will outline the hypotheses that flow from pre-existing literature and theories, as well as this study's research objectives and questions. Hypotheses 1a and 1b concern the health disparities among LGBTQIA+ individuals. The first two chapters of this thesis exposed some of the health-related vulnerabilities of sexual- and gender minorities. This study aims to do the same for LGBTQIA+ individuals in a European context, while controlling for other relevant variables that might influence health. Following the investigation of LGBTQIA+ health disparities, the focus of this study shifts to the association between discrimination and health. Previous research and theories have established that discrimination and health are often linked. This study aims to test hypothesis 2a and see whether the association between discrimination and health applies to a European context as well. Additionally, this study aims to differentiate between different discriminatory experiences and investigate their associations with health, respectively

(hypothesis 2b). Once the association between discrimination and health for this study has been established, this study aims to investigate the role of specific sexualities and/or gender identities in the respective association. In order to fully understand the reciprocity between discrimination, health and sexual- and/or gender minorities, it is important to look at the role of separate sexualities and gender identities in the discrimination-health association. The use of interaction variables enables this study to discover whether certain sexualities and gender identities experience health disparities specifically as a result of discrimination (hypothesis 3). Finally, this study intends to zoom in on multiple discrimination and intersectionality. Previous research has established the exacerbated health effects originating from multiple discrimination in comparison to other discriminatory experiences. The minority stress framework and the intersectionality theory underline this. This study aims to test the association between multiple discrimination and health as well. Moreover, this study aims to investigate the effect of an additional discriminatory ground in one's discriminatory experience in relation to the association with health (hypothesis 4).

Hypothesis 1a: Bisexual individuals are the most likely to report the worst health status among all included sexualities.

Hypothesis 1b: Transgender individuals are the most likely to report the worst health status among all included gender identities.

Hypothesis 2a: Individuals experiencing discrimination as a result of identifying as a sexual- or gender minority are more likely to have a worse health status than sexual- and gender minorities who have not experienced recent discrimination.

Hypothesis 2b: Sexual- and/or gender minorities experiencing multiple discrimination are more likely to have a worse health status than those who did not experience multiple discrimination.

Hypothesis 3: Sexuality and gender identity categories act as a significant mediator in the association between discrimination and health.

Hypothesis 4: The more grounds on which an individual is discriminated against, the negative association of health with discrimination becomes stronger.

3. Data and methods

3.1. Description of the dataset

The dataset used for this study originates from the EU-LGBTI II survey. This is a cross-sectional survey, created by the European Union Agency for Fundamental Rights (FRA) to mainly address the scarcity in data concerning the experiences of LGBTQIA+ individuals in Europe. It is an important instrument in shining a light on the lengths to which LGBTQIA+ individuals experience violence, harassment and discrimination in substantial aspects of life (e.g., health care, education, work, housing). Other reasons why the questionnaire was executed, were to gather information on the views of LGBTQIA+ individuals regarding the efforts of policy- and lawmakers for their respective rights, to deliver relevant data to stakeholders and societies that could raise awareness, as well as to identify trends in the experiences of sexual- and gender minorities (FRA, 2020). Other than topics such as discrimination, harassment and violence, the questionnaire asks for respondents' social contexts, the environments in which they feel safe, their background and even individuals' stories in relation to their victimization experiences. The first wave of the EU-LGBTI questionnaire was distributed in 2012 and immediately became the largest European survey that focused on the experiences of sexual- and gender minorities. In order to execute this thesis, the second wave, which was administered in 2019, is used. In comparison to the first wave, the second wave is more inclusive of sexualities and gender identities (i.e., inclusion of intersex people), includes more variables and allows a broader range of respondents to participate (i.e., broader age ranges, more countries). Besides the advantage of actuality that the 2019 wave offers, its inclusive character suits best to the nature of this thesis. As a means to reach sexual- and gender minorities on a European scale, the FRA cooperated with various organizations and communities that focused on LGBTQIA+ individuals, as well as certain social media networks. Additionally, in order to develop and fine-tune their research instruments, the FRA cooperated with experts on LGBTQIA+ topics through international organizations such as the European Commission. Given the fact that the survey was distributed through (inter)national LGBTQIA+ organizations, it means that almost all respondents of this survey can be considered to be part of the LGBTQIA+ umbrella (FRA, 2020). The dataset contains 139,799 observations and 517 variables. Other than sexual- and gender minorities, the target population of this survey includes those who are fifteen years or older and have lived in the same country for over one year. This country had to be a EU Member State at the time. More information about the EU-LGBTI II dataset can be gathered using the survey's technical report, which can be found on the FRA website. Subsequent access to the dataset can be requested through the appropriate FRA channels.

3.2. Sample selection and participant recruitment

Given this study's research purposes and the available data and variables in the EU-LGBTI II dataset, a sample was created which consisted of variables on health, discriminatory experiences, sexuality, gender identity, age, socioeconomic status and country of residence. The EU-LGBTI II survey contains three variables related to health, namely self-reported health, long-standing illnesses and recent depressive feelings. Considering the research aims of this study, the self-reported health variable is the most suitable. In terms of discriminatory experiences, the survey offers variables that ask for the occurrence of discrimination, the reasons for discrimination, the occasions of discrimination, reports on discrimination, the private consequences of discrimination and support during or after discriminatory experiences. For this thesis, a combination of the occurrence and reasons for discrimination were used to gather information on whether an individual has been discriminated against and why they were being discriminated against. For sexuality, the questionnaire offers three relevant variables which ask for a respondent's sexual orientation category and sexual activity, respectively. Despite a less comprehensive overview of one's sexuality, the former was deemed the most useful and accurate, as one's sexual activities do not necessarily correspond with one's sexual identity (e.g., one can engage in sexual intercourse with individuals of the same gender without identifying as a homosexual). The questionnaire asks for an individual's gender identity at the moment the survey was administered and an individual's gender identity in general. While the survey rightfully pays attention to the dynamic nature of gender identities, the latter gender identity variable serves this thesis best in terms of its ability in enabling the possibility to make generalizable inferences about health and its association with discrimination. Even though the survey does not provide a variable on respondents' socioeconomic status, it does provide variables which are an indication for one's socioeconomic status, such as education and financial situation. For this reason, these variables will be used accordingly. In terms of country, the survey provides information on an individual's country of origin, country of residence and country of citizenship. Given the fact that the relevance of a 'country' variable can be found in its cultural and sociopolitical climate, a variable that provides information on the climate an individual lives and functions in, would be best. Following this, country of residence was selected as the most relevant variable for this thesis. Ultimately, out of 517 available variables in the entire dataset, nine variables were transformed or created and subsequently used in this thesis. One of the executed steps in transforming these nine variables into variables than can be used for the statistical analysis of the thesis, was to drop all respondents who answered either 'don't know' or 'prefer not to say'. The main reason behind this, is that these categories consistently had a low number of observations, which means that making inferences in the analysis is not prudent under the central limit theorem. A similar reasoning is behind the exclusion of individuals who expressed their sexuality as heterosexual. The number of respondents that identified as

heterosexual did not meet the requirements of the central limit theorem. They were also excluded from the analysis based on the notion that this thesis only aims to make inferences about individuals in the LGBTQIA+ community. There were also respondents who indicated to reside in a country that is not part of the survey's target audience. Consequently, these individuals were excluded from the analysis as well. In total, the number of observations dropped from this study's analysis does not exceed 6000 observations. When comparing this to the total number of observations used in the analysis, their exclusion is not expected to significantly affect the results. Especially since there are no signs indicating that observations were left out on a systematic basis. Ultimately, the sample used for this thesis contains 133,848 observations and nine variables. Table 1, which can be found below, contains the summary statistics for this thesis' variables.

Variable	Freq./Obs.	Mean	Std. Dev.	Min	Max
Health	133848				
Very bad	557	.004	.064	0	1
Bad	4989	.037	.189	0	1
Fair	22939	.171	.377	0	1
Good	64766	.484	.5	0	1
Very good	40597	.303	.46	0	1
Discrimination	133848				
No perceived discrimination	76252	.57	.495	0	1
SGM discrimination	31611	.236	.425	0	1
Multiple discrimination	25985	.194	.396	0	1
Multiple discrimination	133848				
No perceived discrimination	76252	.57	.495	0	1
Singular discrimination	31611	.236	.425	0	1
Double discrimination	17809	.133	.34	0	1
Multiple discrimination (3)	5330	.04	.196	0	1
Multiple discrimination (4)	2121	.016	.125	0	1
Multiple discrimination (>4)	725	.005	.073	0	1
Sexuality	133848				
Lesbian	25521	.191	.393	0	1
Gay	60258	.45	.498	0	1
Bisexual	43314	.324	.468	0	1
Other	4755	.036	.185	0	1
Gender identity	133848				
Cisgender	116081	.867	.339	0	1
Trans woman	2588	.019	.138	0	1
Trans man	3609	.027	.162	0	1
Non-binary	4333	.032	.177	0	1
Genderqueer/-fluid/a-/polygender	5534	.041	.199	0	1
Other	1703	.013	.112	0	1
Age	133848	3.447	2.257	1	11
Education	133848	5.097	1.527	1	8
Finances	133848	3.922	1.276	1	6
Country	133848	16.893	7.814	1	28

Table 1: Summary statistics of this thesis' transformed or created variables originating from the 2019 EU-LGBTI dataset.

In preparation of distributing the EU-LGBTI II survey, the FRA's main concern was to estimate the LGBTQIA+ population in the participating countries in order to have a guide in gathering a representative sample, as well as to have access to an instrument that enables post-stratification weighing. The first step in doing this, was to design stratification criteria using the findings from the first wave of the survey. By doing this, the FRA researchers found that young, gay men were overrepresented. Following this, they focused on age and sexuality as important characteristics in having a balanced sample. The second step in designing stratification criteria was by consulting existing research that could help in estimating this survey's target population. Third, other datasets on LGBTQIA+ individuals in Europe were sought after. Ultimately, the UK annual population survey was helpful in estimating the target population by age and sexuality. As a fourth step, the estimates by age group and sexuality were used to estimate the target population by country as well. By means of multiplying the population size of countries, derived from Eurostat, with the respective estimates by age and sexuality, country estimates were created. Finally, sample size targets were created to obtain an optimal sample size that would be suitable for statistical analyses, while at the same time taking the relative size of LGBTQIA+ population groups into account (FRA, 2020). In the execution of the survey, the EU-LGBTI II survey adhered to a strategy which involved an online opt-in survey on a volunteering basis. These types of surveys are also known as online polls. This strategy is known for being convenient, affordable and quick (Goel et al., 2014). Another reason why the researchers chose to work with an online opt-in survey, is because the content of the respective survey addresses sensitive topics. The occurrence of social desirability bias is likely to be lower in online opt-in surveys in comparison to face-to-face questionnaires. The researchers behind the EU-LGBTI II survey tried to use as many (online) channels as possible to reach members of the LGBTQIA+ community. In order to recruit the harder-to-reach subpopulations, offline methods were used. It is worth mentioning that harder-to-reach populations, next to individuals who are not as digitally active or proficient as others (e.g., older adults), also include sexual- and gender minorities who are not open about their sexuality or gender identity. Another way in which the researchers shaped the recruitment of participants, is by keeping an eye on which respondents were actually participating. Following this, the researchers could adjust some recruitment strategies as a means to end up with a sample that is as representative as possible. This survey's sampling technique, however, presents challenges. As the questionnaire is to be filled out online, it is safe to assume that certain subgroups of the population will not be reached as they experience a structural lack of access to the internet (e.g., elderly people). It should also be taken into consideration that this is likely to differ across the countries that are included in the survey used for this study. Moreover, the fact that the survey is executed on a European scale entails that LGBTQIA+ people in some countries will be less likely to participate in the questionnaires, due to cultural and social norms (FRA, 2020). The risk of undercoverage for certain population subgroups is even greater due to the fact that respondents of this survey were self-selected. Due to its volunteering basis,

this survey lacks control over the respondents being selected, which can affect the representativeness of the collected data. As a response to the risk of undercoverage, the FRA researchers engaged in survey dissemination, followed (if necessary) by applying correction techniques (e.g., weighting). However, the fact that the respective survey designers applied these adjustment techniques means that respondents were not selected at random. This could have consequences for the representativeness and thus the generalizability of studies using the respective sample.

The FRA took several steps to protect the collected data and ensure privacy and security. This is not only important due to the sensitive nature of the data, but also because the survey is web-administered, which presents additional challenges to deal with. First of all, the anonymization of the data was ensured in two ways. Namely, the survey never asked for personal data that could identify individuals and in the data processing phase all data was anonymized, meaning that it was no longer possible to make links to individuals based on the available information in the dataset. The anonymization of data included anonymizing metadata and paradata that was collected due to the survey's online nature. The FRA guaranteed security by encrypting the data, storing it safely and providing limited access to both data processors and researchers using the dataset for academic or societal purposes. After the collection of responses, the data went through an extensive translation process due to the cross-cultural nature of the survey. Particular attention was paid to making sure no information was lost in the translation process and the survey remained geographically comparable (FRA, 2020).

The fact that this study's dataset contains a considerable amount of sensitive data and information means that it should be accompanied with ethical considerations by the researcher as well. Even though this study uses secondary quantitative data and the data is anonymized, there are still concerns with regard to security and confidentiality that should be addressed. In terms of security and as a means to engage in good data management, this study's data will be encrypted and stored on the servers of the University of Groningen. The employed measures by the University of Groningen range from timeless monitoring to virus scanners. As a result, the data will be protected against malicious loss and accidental loss. In terms of confidentiality, this study will not hold on to the dataset longer than is necessary, especially since the dataset is not freely available. Once the dataset is no longer of use, it will be destroyed. Additionally, the EU-LGBTI II dataset will not be accessed or used by anyone other than the author of this thesis or their supervisor(s).

3.3. Operationalization

This study aims to investigate whether discrimination is associated with the health of SGM individuals in Europe. In order to do so, concepts such as health and (multiple) discrimination need to be defined, translated and tailored to variables that can be measured.

3.3.1. Health

The dependent variable of this study is health. According to the definition of the World Health Organization, health is 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity' (WHO, 1948). Out of the health-related variables in the EU-LGBTI II dataset, self-reported health is the variable with the capability of capturing physical, mental and social aspects of health. Previous studies have shown that self-reported health is a dependable predictor of an individual's de facto health (Idler & Benyamini, 1997; Ferraro & Farmer, 1999). It should be mentioned that by using this variable, it will not be possible to differentiate between different aspects of health as defined by the WHO. Moreover, as the variable allows respondents to judge their own health, it is heavily subject to interpretation. As a result, self-reported health scores lower on objectivity and reliability than other health variables. However, there are no superior variables present in the survey used for this study and more importantly, self-reported health allows for this study's research questions to be answered. Self-reported health is an ordinal variable on a Likert-scale, meaning that respondents had five options when describing their health, ranging from 'very poor' (1) to 'very good' (5).

3.3.2. Discrimination

The main independent variable of this study is discrimination. Scholars tend to use perceived discrimination as a way to quantify the occurrence and experience of discrimination. For this study, it makes sense to adopt a similar approach. In order to do so, question C3 from the EU-LGBTI II survey will be used. This question asks respondents about their most recent discriminatory experience and what they felt was the reason why they were being discriminated against. Respondents could indicate whether they did not experience discrimination, whether they were being discriminated against for their sexual orientation and/or gender identity, or whether they were discriminated against based on more grounds. The forms of discrimination included in this question are discrimination based on sexual orientation, gender identity, sex characteristics, ethnicity, sex, skin color, age, religion, disability and 'other'. As a result, this study's main discrimination variable is a nominal variable which has the ability to show whether a respondent did not experience discrimination, whether they experienced SGM discrimination, or whether they experienced multiple discrimination.

In order to investigate whether individuals experiencing multiple discrimination show significant health disparities, a separate variable was created. Again, this variable included the respondents without discriminatory experiences and individuals with discriminatory experiences based on their sexual orientation or gender identity. However, this multiple discrimination variable goes beyond that and was created using a cumulative approach. Other than individuals who had no recent discriminatory experiences or singular discriminatory experiences, it also includes double discrimination (i.e., experiencing discrimination based on both sexuality and gender identity), multiple discrimination based on three minority statuses, multiple discrimination based on four minority statuses and multiple discrimination based on more than four minority statuses. As a result, this variable has the potential to investigate whether and to what extent an additional form of discrimination will add to the negative health effects it presents. It is important to stress that both variables consist of the same data. The simplistic variable effectively answers the second and third research sub-questions. However, it fails to showcase all relevant information with regard to multiple discrimination. In order to answer the final two research sub-questions, a more elaborate variable with regard to multiple discrimination was required. Hence, the creation of the multiple discrimination variable was justified. The process behind the creation of this variable can be found in appendix A.

3.3.3. Other relevant variables

The inclusion of respondents' sexuality and gender identity is important in investigating the association between discrimination and health. Even though the dataset is exclusively made up out of sexual- and gender minorities, the differentiation between these minorities is important in terms of discovering their health disparities and the mediating role they could potentially have in the association between discrimination and health. For sexual orientation, question A4 from the EU-LGBTI II survey was used, whereas question A6 was used for gender identity. For these questions, respondents were asked to select a sexuality and gender identity category they identified the most with. In terms of sexuality, respondents could indicate whether they are gay, lesbian, bisexual, or whether they have another sexual identity (e.g., asexual or pansexual). For gender identity, the response categories were trans man, trans woman, cross-dressing man, cross-dressing woman, non-binary, genderqueer, genderfluid, agender, polygender, or other. All of these categories were deemed important for this thesis, except for crossdressing men and women. The rationale behind this, is that crossdressing is a form of gender expression and is not indicative of gender identity. Due to a low number of cases for individuals who identified as genderqueer, genderfluid, agender and polygender, their response categories were merged, based on the non-binary genderqueer characteristics that these gender identities share.

Previous studies have shown that there are certain sociodemographic characteristics that need to be held constant to prevent them from causing inaccurate results. The first of these characteristics is age (Pascoe &

Richman, 2009; Pavalko et al., 2003). Age is a confounding variable due to its possible contributions to both health and discrimination. The age of respondents was captured in question A1. It is an ordinal variable and will be used accordingly. In previous studies, as mentioned in the theoretical framework, sex can have a confounding effect on discrimination and health as well. However, sex will not be included as a separate variable because of the presence of a gender identity variable. In this study, gender identity will act as a confounding factor because it has the potential to discover its sociological implications in terms of health outcomes, as well as its relevance in the association between discrimination and health.

Next to age, socioeconomic status (SES) is a sociodemographic characteristic that needs to be controlled for in order to capture the association between discrimination and health as accurately as possible (Adler et al., 1994; Adler & Ostrove, 1999; Cutler et al., 2008). Socioeconomic status is defined as 'the social standing or class of an individual or group' and often consists of a combination of measurements on income, education and occupation (APA, 2022). The EU-LGBTI II survey does not provide information on one's 'total' socioeconomic status or occupation. It does, however, ask respondents about their highest completed education (H1) and whether respondents struggle to get by financially (H20). The survey's education variable is an ordinal variable, ranging from 'no formal education' (1) to 'doctoral or equivalent' (8). As for income, the survey asks respondents whether they struggle to make ends meet at the end of the month with their respective income(s). Respondents' answers range from 'with great difficulty' (1) to 'very easily' (6). Despite the absence of occupation, both variables will be added to this study's regression model as an effort to control for their confounding effect in the relationship between health and discrimination.

The association between discrimination and health for SGM individuals in this study should be isolated from country of residence as well. As previously mentioned, it is possible for a geographical variable to explain a significant part of the association between discrimination and health. For this study, an individual's country of residence (A10) will be used, as it captures the effects that the cultural and sociopolitical context of a country can have for the association between discrimination and health. This resulted into a nominal variable, containing all 28 participating countries.

3.4. Plan of analysis

In order to complete this study's research objectives, descriptive statistics and generalized ordinal logistic regression (GOLR) models will be used. The first research objective of this thesis is discovering the health disparities among sexual- and gender minorities. Descriptive statistics will be able to confirm the existence of health disparities among sexual- and gender minorities, whereas logistic regression will enable the size of these disparities to be discovered, while at the same time controlling for certain factors that could affect

the health disparities. After these disparities have been uncovered, the focus will shift to discrimination and its association with health. Spearman's rho will be used to find out whether an association between discrimination and health exists and how potent it is. This statistical technique will enable us to uncover the strength and direction of the association between discrimination and health. In order to predict health given one's discriminatory experiences, an ordinal logistic regression model is required. The implementation of an ordinal logistic regression model in this thesis allows for the third research sub-question to be answered as well. The rationale behind using ordinal logistic regression is the ordinal nature of this study's outcome variable. In order to appropriately employ this statistical technique, an assumption needs to be tested. This assumption is also known as the proportional odds (PO) assumption. It entails that the relationship between any two of the response categories of the response variable should be the same. If the relationship between any response categories is not the same, it means that each pairing of response categories represents a new model. Following this, in order to make inferences about an ordinal response variable, one would need to work with too many models. In order to test the proportional odds assumption, a Brant test was executed.

Variable	chi2	p>chi2	df
All	479.660	0.000	21
Discrimination	48.860	0.000	3
Sexuality	14.910	0.002	3
Gender identity	44.450	0.000	3
Age	14.680	0.002	3
Education	118.560	0.000	3
Finances	95.250	0.000	3
Country	41.410	0.000	3

Table 2: Brant test showing a violation of the proportional odds assumption.

The results of this test, visible in table 2, are significant. This means that the proportional odds assumption has been violated by this study. Typically, it is desirable to employ a statistical method such as generalized ordinal logistic regression (GOLR) when variables or their categories violate the proportional odds assumption. However, since there are variables or coefficients in this study's models that do not violate the PO assumption, it is worth exploring the possibility of running a partial proportional odds (PPO) model. PPO, also known as the constrained adaptation of generalized ordinal logistic regression, allows certain coefficients that violate the proportional odds assumption to differ for all categories of the dependent variable. Contrarily, the unconstrained adaptation allows for all coefficients to differ for all categories of the dependent variable, regardless of assumption violations. Despite its complexities in terms of interpretation, the model is able to provide the best possible fit, ultimately leading to a more accurate regression output. In order to test whether a PPO model in this instance is actually more parsimonious than a GOLR model, a likelihood ratio test is required. For the statistical model that will answer the first, second and third research sub-questions of this thesis, known as Model 5 in the next chapter, the likelihood ratio

test can be found in table 7, appendix B. The output shows a significance level of 0.2170 ($p>0.05$), pointing out the constrained model as the most parsimonious.

Next, this thesis aims to investigate the role of specific sexual- and gender minorities in the aforementioned association. Namely, the fourth sub-question of this thesis aims to investigate the mediating role of sexualities and gender identities in the ability of discrimination to predict health. To answer this question, model 6 was created. This model differs from model 5 because of the introduction of an interaction variable between sexuality and discrimination and another interaction between gender identity and discrimination. The addition of two interaction variables will provide insight into the way that discrimination and sexuality or gender identity work together to ultimately predict health and whether the interactions of these variables significantly contribute to the latter. The introduction of interaction variables calls for another likelihood ratio test to identify whether a constrained or unconstrained adaptation of GOLR is more parsimonious. Table 7 (appendix B) shows the output which, again, with a significance level of 0.4130 ($p>0.05$) points to a constrained model as the most viable approach.

After efforts in discovering information on LGBTQIA+ health disparities, the association between discrimination and health, and the mediating role of LGBTQIA+ individuals in that association, this study's last research objective is to find out to what extent discriminatory experiences in which more forms of discrimination are involved, lead to a stronger association between discrimination and health. In order to do so, a multiple discrimination variable was introduced. This variable's categories, unlike the discrimination variable used in model 5, are based on the number of forms of discrimination someone encountered in their discriminatory experience. The addition of this variable to model 5 enables sub-questions five and six of this thesis to be answered. Even though the multiple discrimination variable was created using the same data as the previous discrimination variable, the differences in their categorization calls for another test of the proportional odds assumption. The output of this test can be found in table 8 (appendix B) and points out that the model containing the multiple discrimination variable (model 7) violates the assumption as well. This means that the employment of a generalized ordinal logistic regression model is desirable. Whether model 7 is best executed using a constrained or unconstrained adaptation of GOLR depends on a likelihood ratio test that compares both model's goodness of fit. Table 7 shows that an unconstrained adaptation of GOLR provides model 7 with the best possible fit. This means that allowing all coefficients to differ for all categories of the outcome variable will ultimately provide the best answer to this study's final research questions.

As a means to execute this study and its research objectives, Stata 17 will be used.

4. Results

In this chapter, the results of the statistical methods employed for this study will be reported and explained. First, descriptive statistics will provide information on this study's relevant variables and their respective associations. Second, the results of a set of constrained and unconstrained generalized ordinal logistic regression (GOLR) models involving variables related to self-reported health, discrimination, sexuality, gender identity and multiple discrimination will be interpreted.

4.1. Descriptive findings

As mentioned before, table 1 in the previous chapter contains all relevant variables for this study. As all variables are of a categorical nature, the respective summary statistics provide a limited amount of useful information about a variable (i.e., number of observations and number of categories). For this particular reason, proportions of the categories of this study's main variables are displayed. For the 'Health' variable, it is visible that the majority of LGBTQIA+ individuals indicate having a 'good' health status, followed by a 'very good' and 'fair' health status. In terms of discrimination, most respondents did not have a recent discriminatory experience. Additionally, there seem to be fewer incidences of multiple discrimination for each additional ground an individual is being discriminated against for. Among the LGBTQIA+ respondents of this study, most identified as gay, followed by bisexuals and lesbians. In terms of gender identity, it seems that almost 87% of the respondents identify as cisgender. With regard to the other gender identities included in this study, trans women and individuals with a gender identity that this study did not include, seem to be underrepresented. For the other variables included in this study, the mean and standard deviation provide information as well. The variable 'Age' has eleven categories and a mean of 3.447. This means that the mean age is between categories 3 and 4, which are the 25-29 and 30-34 age groups, respectively. For 'Education', there are eight categories and a mean of 5.097. On average, the observations in this study have at least finished post-secondary education. Finally, for 'Finances' there are six categories and a mean of 3.922. This means that, on average, LGBTQIA+ individuals in this study are able to make ends meet fairly easily.

The table below (table 3) gives a depiction of the association between health and discrimination for the 133,848 respondents included for this study. The first noticeable statistic from the contingency table is that out of all respondents, 30.33% reported their health as 'very good' and 48.39% as 'good'. This means that more than 78% of the LGBTQIA+ respondents perceived their health as good or very good. Other results include that sexual- and gender minorities who do not have a recent discriminatory experience, generally are more likely to report 'very good' (33,89%) health in comparison to SGM individuals who did experience discrimination (29.29%). Subsequently, the former are less likely to report either 'fair' (14.43%), 'bad'

(2.67%), or 'very bad' (0.26%) health than the latter (17.92%; 3.85%; 0.40%). In terms of SGM individuals experiencing double (or multiple) discrimination, even less people are likely to report 'very good' (21.15%) health and even more people are likely to report 'fair' (24.15%), 'bad' (6.67%), or 'very bad' (0.88%) health. Table 3 includes a chi-square test as well, which indicates whether the differences between the categories of two ordinal variables are significant. For this particular instance, the chi-square test shows a probability level that's lower than 0.00005, which confirms the significance in the differences between the answer categories of self-reported health and perceived discrimination. These descriptive findings provide evidence that preliminarily confirm hypotheses 2a and 4 on the relationship between discrimination and health for SGM individuals. Individuals who experienced SGM discrimination are more likely to report worse health than individuals who did not experience discrimination. Individuals who experienced multiple discrimination are more likely to report worse health than individuals who 'only' experienced SGM discrimination.

	Health					
Discrimination	Very bad	Bad	Fair	Good	Very good	Total
No perceived discrimination	200	2039	11000	37169	25844	76252
	0.26	2.67	14.43	48.74	33.89	100.00
	35.91	40.87	47.95	57.39	63.66	56.97
SGM discrimination	128	1218	5664	15343	9258	31611
	0.40	3.85	17.92	48.54	29.29	100.00
	22.98	24.41	24.69	23.69	22.80	23.62
Multiple discrimination	229	1732	6275	12254	5495	25985
	0.88	6.67	24.15	47.16	21.15	100.00
	41.11	34.72	27.36	18.92	13.54	19.41
Total	557	4989	22939	64766	40597	133848
	0.42	3.73	17.14	48.39	30.33	100.00
	100.00	100.00	100.00	100.00	100.00	100.00

Pearson Chi2 = 3155.56 Prob = 0.0000
First row has *frequencies*; second row has *row percentages* and third row has *column percentages*

Table 3: Relationship between perceived discrimination and self-reported health for the respondents of the EU-LGBTI II dataset.

In order to test the strength of the correlation between this study's health and discrimination variables, Spearman's rho was used, as both the dependent and independent variable have an ordinal nature. Table 4 (appendix B) shows that the correlation between discrimination and health is significant, yet not very strong. This can be explained by this study's design that features the effects of recent perceived discrimination on self-reported health. However, the value of -0.1391 does confirm this study's suspicion of a negative correlation between health and discrimination, meaning that, on average, health will decrease as discrimination increases.

Table 5 and 6 (appendix B) present data on different sexualities and gender identities and whether these groups have recently experienced discrimination. Individuals with 'other' sexualities are the most likely to

experience both SGM discrimination and multiple discrimination, followed by lesbian individuals. Gay and bisexual individuals have a lower likelihood of experiencing discrimination. However, whereas gay individuals are more likely to experience SGM discrimination, bisexual individuals are more likely to experience multiple discrimination. With regard to gender identity, cisgender individuals are the least likely to experience discrimination. Transgender females and transgender males are the most likely to experience discrimination. In terms of SGM discrimination, transgender females and transgender males, again, are the most vulnerable gender identities. However, in terms of multiple discrimination, non-binary individuals, genderqueer/-fluid/agender individuals (NBGQ) and individuals with 'other' gender identities show the highest likelihood of experiencing multiple discrimination.

4.2. Discrimination and health for sexual- and gender minorities

This section will present the results of constrained generalized ordinal logistic regression (GOLR) models to investigate the health disparities among sexual- and gender minorities and the association of recent discrimination with LGBTQIA+ health. Additionally, the mediating role of sexualities and gender identities in this association will be explored.

For this chapter, multiple models were created in order to provide an answer to this study's research questions. The model building process can be found below in table 9. Model 1 contains this study's main variables of interest. These variables are health, discrimination, sexuality and gender identity. The model containing these variables has an R-squared value of 0.0305. This means that approximately 3.1% of the variability found in this study's outcome variable can be explained by the variables included in the model. In the next models, control variables were added through stepwise selection based on their association with health and discrimination in previous literature and their availability in the EU-LGBTI II dataset. All control variables proved to strengthen the model. In model 2, 'age' was added as a variable. Following the expansion of the model, the R-squared value increased to 0.0344, meaning that this model explains 3.4% of the variability in the outcome variable. In model 3, 'education' was added, which led to an R-squared of 0.0426. In model 4, 'finances' was added. This addition led to a vast increase of the R-squared of the model, namely to 0.0632. Finally, the addition of 'country' to the model translated to an increase of the R-squared to 0.0801. This means that model 5, one of the two models used in this chapter, explains approximately 8% of the variability in the health status of this survey's respondents.

Variables	(Model 1) Health	(Model 2) Health	(Model 3) Health	(Model 4) Health	(Model 5) Health
Discrimination					
SGM discrimination	0.716***	0.687***	0.675***	0.805*	0.783**
	(0.083)	(0.080)	(0.079)	(0.094)	(0.089)
Multiple discrimination	0.420***	0.402***	0.396***	0.515***	0.496***
	(0.042)	(0.040)	(0.040)	(0.052)	(0.049)
Sexuality					
Gay	1.323***	1.464***	1.491***	1.425***	1.393***
	(0.137)	(0.156)	(0.161)	(0.151)	(0.144)
Bisexual	0.796***	0.815***	0.816***	0.834***	0.831***
	(0.012)	(0.012)	(0.012)	(0.013)	(0.013)
Other	0.647***	0.652***	0.667***	0.685***	0.727***
	(0.021)	(0.022)	(0.022)	(0.023)	(0.024)
Gender identity					
Trans woman	0.225***	0.234***	0.280***	0.352***	0.606***
	(0.039)	(0.041)	(0.049)	(0.062)	(0.023)
Trans man	0.310***	0.301***	0.334***	0.381***	0.491***
	(0.050)	(0.049)	(0.055)	(0.062)	(0.016)
Non-binary	0.392***	0.364***	0.375***	0.405***	0.464***
	(0.064)	(0.060)	(0.062)	(0.066)	(0.015)
Genderqueer/-fluid/a-/polygender	0.280***	0.272***	0.282***	0.309***	0.340***
	(0.037)	(0.036)	(0.037)	(0.041)	(0.043)
Other	0.194***	0.205***	0.228***	0.271***	0.321***
	(0.036)	(0.039)	(0.043)	(0.051)	(0.060)
Age					
18-24		1.558***	1.054	1.360***	1.273**
		(0.183)	(0.142)	(0.139)	(0.130)
25-29		1.511***	0.802	1.230	1.191
		(0.227)	(0.137)	(0.170)	(0.165)
30-34		1.263	0.644**	1.029	1.038
		(0.213)	(0.122)	(0.026)	(0.027)
35-39		1.164	0.596**	0.980	0.978
		(0.220)	(0.124)	(0.026)	(0.027)
40-44		0.948	0.499***	0.872***	0.867***
		(0.190)	(0.108)	(0.025)	(0.025)
45-49		0.930	0.502***	0.761***	0.761***
		(0.214)	(0.123)	(0.024)	(0.025)
50-54		0.609**	0.339***	0.563***	0.547***
		(0.132)	(0.079)	(0.116)	(0.113)
55-59		0.602*	0.359***	0.535**	0.527***
		(0.163)	(0.101)	(0.140)	(0.022)
60-64		0.638***	0.308***	0.453***	0.490***
		(0.034)	(0.117)	(0.025)	(0.027)
65+		0.543***	0.224***	0.371***	0.422***
		(0.031)	(0.081)	(0.022)	(0.025)
Education					
Primary education			3.571***	3.276***	2.903***
			(1.087)	(1)	(0.896)
Lower secondary education			4.104***	3.718***	3.456***
			(1.103)	(1.003)	(0.938)
Upper secondary education			6.061***	5.203***	5.547***
			(1.612)	(1.374)	(1.467)
Post-secondary education			5.724***	5.047***	5.863***
			(1.601)	(1.391)	(1.631)
Bachelor or equivalent			8.795***	6.727***	7.516***

	(2.449)	(1.833)	(2.057)
Master or equivalent	13.406***	8.335***	8.862***
	(3.956)	(2.388)	(2.541)
Doctoral or equivalent	13.083***	6.947***	6.951***
	(5.564)	(2.911)	(2.916)
Finances			
Difficult		2.589***	2.638***
		(0.338)	(0.346)
Some difficulty		4.436***	4.591***
		(0.529)	(0.546)
Fairly easily		9.835***	10.617***
		(1.428)	(1.545)
Easily		9.785***	10.061***
		(1.575)	(1.615)
Very easily		8.884***	9.669***
		(1.954)	(2.123)
Country			
Belgium			0.574
			(0.232)
Bulgaria			0.313***
			(0.120)
Croatia			0.387*
			(0.201)
Cyprus			0.243**
			(0.146)
Czech Republic			0.913*
			(0.048)
Denmark			0.227***
			(0.066)
Estonia			0.379**
			(0.155)
Finland			0.363***
			(0.083)
France			0.312***
			(0.061)
Germany			0.515***
			(0.098)
Greece			1
			(0.346)
Hungary			0.558*
			(0.174)
Ireland			0.278***
			(0.087)
Italy			0.814
			(0.223)
Latvia			0.493
			(0.293)
Lithuania			0.737
			(0.386)
Luxembourg			0.713***
			(0.079)
Malta			1.074
			(1.085)
Netherlands			0.371***
			(0.105)
Poland			0.471***
			(0.021)
Portugal			0.431***
			(0.138)

Romania					1.218
					(0.571)
Slovakia					0.395***
					(0.132)
Slovenia					0.623***
					(0.054)
Spain					0.627**
					(0.129)
Sweden					0.145***
					(0.033)
United Kingdom					0.195***
					(0.034)
Intercept	477.934***	389.430***	89.965***	14.297***	31.129***
	(40.703)	(44.534)	(24.270)	(3.981)	(9.537)
Bad: Discrimination					
Bad: SGM discrimination	0.704***	0.682***	0.674***	0.759***	0.771***
	(0.025)	(0.025)	(0.024)	(0.028)	(0.028)
Bad: Multiple discrimination	0.494***	0.480***	0.471***	0.560***	0.547***
	(0.016)	(0.016)	(0.016)	(0.019)	(0.018)
Bad: Sexuality					
Bad: Gay	1.558***	1.684***	1.709***	1.616***	1.549***
	(0.054)	(0.060)	(0.061)	(0.057)	(0.054)
Bad: Bisexual	0.796***	0.815***	0.816***	0.834***	0.831***
	(0.012)	(0.012)	(0.012)	(0.013)	(0.013)
Bad: Other	0.647***	0.652***	0.667***	0.685***	0.727***
	(0.021)	(0.022)	(0.022)	(0.023)	(0.024)
Bad: Gender identity					
Bad: Trans woman	0.362***	0.382***	0.430***	0.476***	0.606***
	(0.024)	(0.026)	(0.029)	(0.033)	(0.023)
Bad: Trans man	0.338***	0.332***	0.360***	0.394***	0.491***
	(0.019)	(0.019)	(0.02)	(0.022)	(0.016)
Bad: Non-binary	0.358***	0.347***	0.353***	0.370***	0.464***
	(0.019)	(0.018)	(0.019)	(0.02)	(0.015)
Bad: Genderqueer/-fluid/a-/polygender	0.397***	0.389***	0.393***	0.416***	0.456***
	(0.02)	(0.019)	(0.019)	(0.021)	(0.023)
Bad: Other	0.364***	0.383***	0.418***	0.454***	0.549***
	(0.029)	(0.031)	(0.034)	(0.037)	(0.045)
Bad: Age					
Bad: 18-24		1.096**	0.784***	1.023	0.971
		(0.043)	(0.036)	(0.036)	(0.035)
Bad: 25-29		1.113**	0.629***	0.939	0.947
		(0.055)	(0.036)	(0.044)	(0.045)
Bad: 30-34		1.241***	0.681***	1.029	1.038
		(0.074)	(0.045)	(0.026)	(0.027)
Bad: 35-39		1.153**	0.632***	0.980	0.978
		(0.077)	(0.046)	(0.026)	(0.027)
Bad: 40-44		0.986	0.553***	0.872***	0.867***
		(0.071)	(0.043)	(0.025)	(0.025)
Bad: 45-49		0.792***	0.453***	0.761***	0.761***
		(0.061)	(0.037)	(0.024)	(0.025)
Bad: 50-54		0.590***	0.345***	0.516***	0.541***
		(0.045)	(0.028)	(0.039)	(0.041)
Bad: 55-59		0.478***	0.289***	0.412***	0.527***
		(0.042)	(0.027)	(0.036)	(0.022)
Bad: 60-64		0.638***	0.310***	0.453***	0.490***
		(0.034)	(0.040)	(0.025)	(0.027)
Bad: 65+		0.543***	0.274***	0.371***	0.422***

	(0.031)	(0.037)	(0.022)	(0.025)
Bad: Education				
Bad: Primary education		1.576***	1.481**	1.353*
		(0.243)	(0.231)	(0.212)
Bad: Lower secondary education		1.847***	1.663***	1.511***
		(0.270)	(0.246)	(0.225)
Bad: Upper secondary education		2.491***	2.098***	1.955***
		(0.362)	(0.307)	(0.288)
Bad: Post-secondary education		2.832***	2.401***	2.061***
		(0.421)	(0.358)	(0.312)
Bad: Bachelor or equivalent		3.756***	2.821***	2.486***
		(0.554)	(0.417)	(0.371)
Bad: Master or equivalent		5.246***	3.422***	3.014***
		(0.789)	(0.515)	(0.457)
Bad: Doctoral or equivalent		5.111***	2.975***	2.569***
		(0.915)	(0.533)	(0.463)
Bad: Finances				
Bad: Difficult			1.692***	1.715***
			(0.087)	(0.089)
Bad: Some difficulty			2.896***	3.015***
			(0.137)	(0.144)
Bad: Fairly easily			4.204***	4.707***
			(0.207)	(0.234)
Bad: Easily			6.142***	6.433***
			(0.348)	(0.366)
Bad: Very easily			5.724***	6.559***
			(0.417)	(0.479)
Bad: Country				
Bad: Belgium				0.704***
				(0.087)
Bad: Bulgaria				0.954
				(0.154)
Bad: Croatia				0.844
				(0.164)
Bad: Cyprus				0.905
				(0.242)
Bad: Czech Republic				0.913*
				(0.048)
Bad: Denmark				0.376***
				(0.040)
Bad: Estonia				0.392***
				(0.050)
Bad: Finland				0.460***
				(0.037)
Bad: France				0.625***
				(0.045)
Bad: Germany				0.541***
				(0.035)
Bad: Greece				3.232***
				(0.522)
Bad: Hungary				0.707***
				(0.070)
Bad: Ireland				0.486***
				(0.053)
Bad: Italy				1.550***
				(0.151)
Bad: Latvia				0.537***
				(0.093)

Bad: Lithuania					0.515***
					(0.068)
Bad: Luxembourg					0.713***
					(0.079)
Bad: Malta					1.613
					(0.501)
Bad: Netherlands					0.589***
					(0.059)
Bad: Poland					0.471***
					(0.021)
Bad: Portugal					0.991
					(0.119)
Bad: Romania					1.044
					(0.125)
Bad: Slovakia					0.846
					(0.107)
Bad: Slovenia					0.623***
					(0.054)
Bad: Spain					1.322***
					(0.101)
Bad: Sweden					0.252***
					(0.022)
Bad: United Kingdom					0.342***
					(0.022)
Bad: Intercept	36.660***	35.309***	17.832***	4.639***	7.411***
	(1.008)	(1.399)	(2.598)	(0.701)	(1.192)
Fair: Discrimination					
Fair: SGM discrimination	0.738***	0.715***	0.710***	0.775***	0.781***
	(0.013)	(0.012)	(0.012)	(0.014)	(0.014)
Fair: Multiple discrimination	0.556***	0.546***	0.537***	0.609***	0.593***
	(0.009)	(0.009)	(0.009)	(0.011)	(0.011)
Fair: Sexuality					
Fair: Gay	1.422***	1.444***	1.453***	1.408***	1.350***
	(0.025)	(0.026)	(0.026)	(0.026)	(0.025)
Fair: Bisexual	0.796***	0.815***	0.816***	0.834***	0.831***
	(0.012)	(0.012)	(0.012)	(0.013)	(0.013)
Fair: Other	0.647***	0.652***	0.667***	0.685***	0.727***
	(0.021)	(0.022)	(0.022)	(0.023)	(0.024)
Fair: Gender identity					
Fair: Trans woman	0.431***	0.442***	0.491***	0.519***	0.606***
	(0.018)	(0.019)	(0.021)	(0.022)	(0.023)
Fair: Trans man	0.399***	0.408***	0.443***	0.465***	0.491***
	(0.014)	(0.015)	(0.016)	(0.017)	(0.016)
Fair: Non-binary	0.433***	0.426***	0.432***	0.439***	0.464***
	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
Fair: Genderqueer/-fluid/a-/polygender	0.487***	0.482***	0.483***	0.503***	0.517***
	(0.015)	(0.015)	(0.015)	(0.016)	(0.017)
Fair: Other	0.522***	0.538***	0.586***	0.616***	0.675***
	(0.027)	(0.028)	(0.031)	(0.033)	(0.037)
Fair: Age					
Fair: 18-24		1.144***	0.867***	0.997	0.962*
		(0.023)	(0.02)	(0.021)	(0.021)
Fair: 25-29		1.371***	0.813***	1.018	1.031
		(0.035)	(0.024)	(0.028)	(0.029)
Fair: 30-34		1.481***	0.850***	1.029	1.038
		(0.044)	(0.028)	(0.026)	(0.027)
Fair: 35-39		1.401***	0.803***	0.980	0.978

	(0.046)	(0.029)	(0.026)	(0.027)
Fair: 40-44	1.243***	0.725***	0.872***	0.867***
	(0.044)	(0.028)	(0.025)	(0.025)
Fair: 45-49	1.034	0.619***	0.761***	0.761***
	(0.040)	(0.026)	(0.024)	(0.025)
Fair: 50-54	0.826***	0.506***	0.601***	0.609***
	(0.033)	(0.022)	(0.025)	(0.026)
Fair: 55-59	0.699***	0.439***	0.509***	0.527***
	(0.033)	(0.022)	(0.025)	(0.022)
Fair: 60-64	0.638***	0.390***	0.453***	0.490***
	(0.034)	(0.026)	(0.025)	(0.027)
Fair: 65+	0.543***	0.325***	0.371***	0.422***
	(0.031)	(0.022)	(0.022)	(0.025)
Fair: Education				
Fair: Primary education		1.496***	1.424***	1.367***
		(0.147)	(0.142)	(0.138)
Fair: Lower secondary education		1.649***	1.562***	1.485***
		(0.155)	(0.150)	(0.144)
Fair: Upper secondary education		2.049***	1.892***	1.830***
		(0.192)	(0.180)	(0.176)
Fair: Post-secondary education		2.453***	2.292***	1.964***
		(0.233)	(0.221)	(0.192)
Fair: Bachelor or equivalent		3.131***	2.687***	2.436***
		(0.296)	(0.257)	(0.236)
Fair: Master or equivalent		4.462***	3.438***	3.069***
		(0.426)	(0.332)	(0.300)
Fair: Doctoral or equivalent		4.998***	3.492***	3.105***
		(0.532)	(0.376)	(0.338)
Fair: Finances				
Fair: Difficult			1.422***	1.453***
			(0.049)	(0.051)
Fair: Some difficulty			1.921***	2.011***
			(0.060)	(0.063)
Fair: Fairly easily			2.694***	3.040***
			(0.084)	(0.096)
Fair: Easily			4.161***	4.461***
			(0.137)	(0.150)
Fair: Very easily			4.966***	5.600***
			(0.198)	(0.226)
Fair: Country				
Fair: Belgium				0.729***
				(0.051)
Fair: Bulgaria				1.006
				(0.082)
Fair: Croatia				0.862
				(0.083)
Fair: Cyprus				1.333**
				(0.191)
Fair: Czech Republic				0.913*
				(0.048)
Fair: Denmark				0.509***
				(0.035)
Fair: Estonia				0.504***
				(0.041)
Fair: Finland				0.384***
				(0.021)
Fair: France				0.800***
				(0.040)

Fair: Germany					0.651***
					(0.031)
Fair: Greece					1.714***
					(0.113)
Fair: Hungary					0.548***
					(0.032)
Fair: Ireland					0.529***
					(0.035)
Fair: Italy					0.864***
					(0.045)
Fair: Latvia					0.314***
					(0.029)
Fair: Lithuania					0.508***
					(0.039)
Fair: Luxembourg					0.713***
					(0.079)
Fair: Malta					0.746***
					(0.081)
Fair: Netherlands					0.494***
					(0.029)
Fair: Poland					0.471***
					(0.021)
Fair: Portugal					0.667***
					(0.040)
Fair: Romania					0.721***
					(0.045)
Fair: Slovakia					0.781***
					(0.052)
Fair: Slovenia					0.623***
					(0.054)
Fair: Spain					1.063
					(0.052)
Fair: Sweden					0.361***
					(0.023)
Fair: United Kingdom					0.381***
					(0.018)
Fair: Intercept	4.991***	4.314***	2.403***	0.888	1.390***
	(0.077)	(0.095)	(0.226)	(0.088)	(0.152)
Good: Discrimination					
Good: SGM discrimination	0.800***	0.781***	0.779***	0.840***	0.845***
	(0.012)	(0.012)	(0.012)	(0.013)	(0.013)
Good: Multiple discrimination	0.610***	0.603***	0.598***	0.665***	0.652***
	(0.011)	(0.011)	(0.011)	(0.012)	(0.012)
Good: Sexuality					
Good: Gay	1.269***	1.276***	1.272***	1.239***	1.170***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.019)
Good: Bisexual	0.796***	0.815***	0.816***	0.834***	0.831***
	(0.012)	(0.012)	(0.012)	(0.013)	(0.013)
Good: Other	0.647***	0.652***	0.667***	0.685***	0.727***
	(0.021)	(0.022)	(0.022)	(0.023)	(0.024)
Good: Gender identity					
Good: Trans woman	0.517***	0.533***	0.575***	0.601***	0.606***
	(0.028)	(0.029)	(0.032)	(0.034)	(0.023)
Good: Trans man	0.405***	0.416***	0.441***	0.461***	0.491***
	(0.021)	(0.021)	(0.023)	(0.024)	(0.016)
Good: Non-binary	0.430***	0.429***	0.434***	0.437***	0.464***
	(0.02)	(0.02)	(0.021)	(0.021)	(0.015)
Good: Genderqueer/-fluid/a-/polygender	0.568***	0.567***	0.570***	0.596***	0.608***

	(0.022)	(0.022)	(0.022)	(0.023)	(0.024)
Good: Other	0.716***	0.739***	0.785***	0.827***	0.846***
	(0.043)	(0.045)	(0.048)	(0.051)	(0.053)
Good: Age					
Good: 18-24		1.078***	0.923***	1.008	1.005
		(0.022)	(0.021)	(0.021)	(0.022)
Good: 25-29		1.310***	0.924***	1.056**	1.064**
		(0.031)	(0.025)	(0.026)	(0.028)
Good: 30-34		1.355***	0.926***	1.029	1.038
		(0.034)	(0.027)	(0.026)	(0.027)
Good: 35-39		1.324***	0.907***	0.980	0.978
		(0.036)	(0.028)	(0.026)	(0.027)
Good: 40-44		1.180***	0.813***	0.872***	0.867***
		(0.035)	(0.027)	(0.025)	(0.025)
Good: 45-49		1.024	0.723***	0.761***	0.761***
		(0.035)	(0.027)	(0.024)	(0.025)
Good: 50-54		0.882***	0.635***	0.670***	0.675***
		(0.033)	(0.025)	(0.026)	(0.027)
Good: 55-59		0.693***	0.503***	0.518***	0.527***
		(0.033)	(0.025)	(0.025)	(0.022)
Good: 60-64		0.638***	0.474***	0.453***	0.490***
		(0.034)	(0.032)	(0.025)	(0.027)
Good: 65+		0.543***	0.417***	0.371***	0.422***
		(0.031)	(0.031)	(0.022)	(0.025)
Good: Education					
Good: Primary education			1.179	1.116	1.002
			(0.140)	(0.133)	(0.121)
Good: Lower secondary education			1.324**	1.259**	1.114
			(0.152)	(0.145)	(0.130)
Good: Upper secondary education			1.418***	1.342**	1.215*
			(0.161)	(0.154)	(0.141)
Good: Post-secondary education			1.462***	1.390***	1.247*
			(0.168)	(0.161)	(0.146)
Good: Bachelor or equivalent			1.842***	1.644***	1.479***
			(0.210)	(0.189)	(0.172)
Good: Master or equivalent			2.511***	2.026***	1.794***
			(0.287)	(0.234)	(0.209)
Good: Doctoral or equivalent			3.111***	2.312***	2.001***
			(0.369)	(0.276)	(0.242)
Good: Finances					
Good: Difficult				1.040	1.049
				(0.046)	(0.046)
Good: Some difficulty				1.300***	1.325***
				(0.051)	(0.052)
Good: Fairly easily				1.701***	1.825***
				(0.065)	(0.071)
Good: Easily				2.463***	2.660***
				(0.095)	(0.104)
Good: Very easily				3.820***	4.224***
				(0.154)	(0.174)
Good: Country					
Good: Belgium					0.611***
					(0.036)
Good: Bulgaria					1.073
					(0.069)
Good: Croatia					1.130
					(0.086)

Good: Cyprus					1.599***
					(0.150)
Good: Czech Republic					0.913*
					(0.048)
Good: Denmark					0.587***
					(0.037)
Good: Estonia					0.420***
					(0.037)
Good: Finland					0.268***
					(0.016)
Good: France					0.684***
					(0.031)
Good: Germany					0.606***
					(0.027)
Good: Greece					1.526***
					(0.079)
Good: Hungary					0.384***
					(0.022)
Good: Ireland					0.616***
					(0.038)
Good: Italy					0.690***
					(0.032)
Good: Latvia					0.293***
					(0.033)
Good: Lithuania					0.352***
					(0.029)
Good: Luxembourg					0.713***
					(0.079)
Good: Malta					0.664***
					(0.059)
Good: Netherlands					0.442***
					(0.025)
Good: Poland					0.471***
					(0.021)
Good: Portugal					0.495***
					(0.027)
Good: Romania					0.685***
					(0.040)
Good: Slovakia					0.876**
					(0.050)
Good: Slovenia					0.623***
					(0.054)
Good: Spain					0.564***
					(0.025)
Good: Sweden					0.376***
					(0.024)
Good: United Kingdom					0.434***
					(0.021)
Good: Intercept	0.521***	0.463***	0.342***	0.185***	0.335***
	(0.007)	(0.01)	(0.039)	(0.022)	(0.043)
Observations	133848	133848	133848	133848	133848
Pseudo R^2	0.031	0.034	0.043	0.063	0.080

*Notes: Standard errors are in parentheses. *** p<.01, ** p<.05, * p<.1*

Table 9: Model building output conveying the process from model 1 to model 5. The model on the right (model 5) is used to provide information on LGBTQIA+ health disparities, as well as on the association between discrimination and health.

4.2.1. Health disparities among sexual- and gender minorities

The first noticeable thing when inspecting model 5, is the significance of the model. The significance level ($p<0.00005$) implies that a change in an independent variable is likely, on a 95% confidence level, to affect the dependent variable as well. Upon further interpretation, it is worth mentioning that the 'very good' health state acts as reference category for the dependent variable. For sexuality, the reference category is 'lesbian'. When inspecting the main effects of sexuality, the p-value is significant ($p<0.005$) for all categories. This confirms that a difference in sexuality is likely to translate to a difference in health status as well. Model 5 shows that, for the 'very bad' health status, the odds ratio (OR) of 'gay' is 1.393. Following this, while keeping other predictors constant, the odds of having a health status better than 'very bad' are 39.3% higher for gay individuals in comparison to the odds of lesbian individuals. Gay individuals having higher odds of having a better health status than lesbian individuals, is a trend that continues throughout all categories of the outcome variable. For the 'bad' health status, the odds for gay individuals of having a better health status are 54.9% higher than for lesbian individuals (OR=1.549). For the 'fair' and 'good' health states, the aforementioned trend weakens (OR=1.350; OR=1.170, respectively). Whereas the 'gay' sexuality category violated the proportional odds assumption, the other sexuality categories in the model output did not. As a result, the other coefficients are constrained. For bisexual individuals, model 5 shows that, while keeping other predictors constant, the odds of being beyond a certain health state are 0.831 times lower as opposed to being at or below that health state, in comparison to lesbian individuals. Individuals categorized having 'other' sexualities, are shown to have odds of being beyond a particular health status that are 0.727 times lower compared to lesbian individuals.

For gender identity, the reference category is 'cisgender' and the coefficients of trans women, trans men and non-binary individuals are constrained. Model 5 indicates that, again, the p-value for all coefficients is smaller than 0.0005, indicating that health status significantly differs across gender identities. For trans women, the odds ratio is 0.606. This translates to the odds of having a better health status than cisgender individuals being 0.606 times lower for transgender women, keeping all predictors constant. For trans men, the odds of having a better health status are 50.9% lower (OR=0.491) in comparison to cisgender individuals. The odds of non-binary individuals in being beyond a certain health status compared to cisgender individuals are 53.6% (OR=0.464) lower. Genderqueer/-fluid/agender/polygender individuals' odds of having a better health status than 'very bad' are 66% (OR=0.340) lower in comparison to cisgender individuals. These odds are the lowest in comparison to other gender identities. This trend does not continue, although the odds of genderqueer/-fluid/agender/polygender individuals are among the lowest. Their odds of having a better health status than 'bad' are 54.4% (OR=0.456) lower in comparison to cisgender individuals. For the fair and good health states, the odds of genderqueer/-fluid/agender/polygender

individuals to have a better health status are, respectively, 48.3% (OR=0.517) and 39.2% (OR=0.608) lower, keeping all predictors constant. For individuals categorized as 'other', the odds of having a better health status than very bad are 67.9% (OR=0.321) lower than cisgender individuals. These odds are close to the lowest odds within the 'very bad' health status. However, across health states, the odds of individuals with 'other' gender identities increased vastly, comparatively speaking. For the 'bad' health status, the odds of having a better health status in comparison to cisgender individuals are 45.1% lower (OR=0.549). For the 'fair' and 'good' health states, the odds of 'other' gender identities to have a better health status are 32.5% (OR=0.675) and 15.4% (0.846) lower.

4.2.2. Perceived SGM discrimination and self-reported health

This paragraph is concerned with answering the second and third research sub-questions by zooming in on discrimination and its association with health. For the discrimination variable, 'no experienced discrimination' is the reference category. The regression output presents significant p-values for all coefficients on a 95% confidence level, meaning that a change in the independent variable generally causes a change in the dependent variable as well. The extent to which discrimination is association with health can be deduced from the coefficients of the discrimination variable. The 'very bad' health state shows an odds ratio of 0.7826 for SGM discrimination. This means that, while keeping other predictors constant, the odds of having a better health status than 'very bad' are 21.7% lower for individuals who experienced SGM discrimination in comparison to individuals who did not experience discrimination. The 'bad' health status shows an OR of 0.7711, meaning that the odds of having a better health status than 'bad' are 22.9% lower for SGM discrimination. The odds of having a better health status than 'fair' are 21.9% (OR=0.7814) lower, and finally, holding other predictors constant, the odds of having a better health status than 'good' are 15.5% (OR=0.8450) lower for SGM discrimination in comparison to SGM individuals who did not recently experience discrimination. Altogether, this means that, for all health states, the odds of reporting a worse health status are higher for individuals who experienced SGM discrimination contrary to LGBTQIA+ individuals without recent discriminatory experiences.

In terms of the control variables' coefficients, it is noticeable that some are rather large. This is mainly due to the use of a reference category and the differences between the categories of these variables. For the variable 'age', using 'under 18' as reference category, it is visible that, as age increases, the odds of having a better health status generally decrease. This goes for all health status rows. It is, however, interesting to see that the mentioned relationship between health and age in this study starts around age 35. For example, the odds for the 25 to 29 age group are 19.1% (OR=1.1911) higher to have a health status better than 'very

bad' in comparison to individuals under 18, whereas the respective odds for the 40 to 44 age group are 13.3% (OR=0.8668) lower. These results indicate that an individual's thirties represent a decade in which significant disparities in self-reported health are formed in comparison to other age ranges. For education, 'no educational attainment' was used as the reference category. There appears to be a positive relationship with health. As one's educational attainment increases, model 5 shows that, for all health status rows, the odds of having a better health status generally increase as well. A similar trend exists for 'finances'. For this variable, 'very difficult' was used as the reference category. As one's financial position improves, the odds of having a better health status increase. For example, the odds of having a better health status than 'good' are 32.5% (OR=1.3245) higher for individuals who have some difficulty to make ends meet, whereas these odds are 82.5% (OR=1.8253) higher for individuals who make ends meet fairly easily, holding all other predictors constant.

4.2.3. Sexuality and gender identity as mediators

In order to find out whether sexuality or gender identity mediate the association between discrimination and health, a more advanced regression model is required, containing the main effects as well as an interaction effect between discrimination, sexuality and gender identity, respectively. This model (model 6) can be found in table 10, appendix C. It is visible that the addition of two interaction terms did not cause model 6 to differ much from model 5. The r-squared value increased from 0.0801 to 0.0802, which translates to an increase of 0.01% in the explained variability of health.

The results from the interaction term between discrimination and sexuality present two coefficients that are significant. Model 6 indicates that the categories 'bisexual' and 'other' mediate the association between SGM discrimination and self-reported health. For these individuals, the OR's are 1.125 and 1.129, respectively. This means that for bisexual individuals and individuals with 'other' sexualities, SGM discrimination is likely to affect their health status less negatively than it does for lesbian individuals. Other combinations of sexualities and discrimination included in this study present OR's that are not significant and are relatively close to 1 (1.057; 1.033; 1.012; 1.05). This means that for gay individuals experiencing SGM discrimination and multiple discrimination, next to 'bisexual' and 'other' individuals experiencing multiple discrimination, the effect of discrimination on health is not mediated by sexuality. In other words, the results of model 6 suggest that the association between discrimination and health is relatively similar for these sexualities.

In terms of gender identity, there are two identities that indicate significance. The first identity is comprised of individuals categorized as having 'other' gender identities who experienced SGM discrimination. In

comparison to cisgender individuals, this category has a coefficient of 0.622. This means that individuals with 'other' gender identities have higher odds of their health being negatively associated with SGM discrimination in comparison to other deviant gender identities. Other gender identities do not appear to mediate the association between SGM discrimination and health. The second gender identity indicating significance concerns non-binary individuals who experienced multiple discrimination. In comparison to other gender identities experiencing multiple discrimination, non-binary individuals present an OR that is higher than 1, namely 1.211. This implies that non-binary individuals experiencing multiple discrimination have a lower likelihood of their health being negatively associated with the latter than cisgender individuals. Other combinations between gender identities and multiple discrimination do not indicate to mediate the association between discrimination and health.

4.3. Multiple discrimination

4.3.1. Singular discrimination versus multiple discrimination

In this chapter, the focus will shift to the difference in self-reported health coefficients of individuals who experienced one form of discrimination in opposition to individuals experiencing multiple discrimination. Further investigation of the discrimination variable in model 5 shows that for individuals who experienced multiple discrimination, the odds of having a better health status than 'very bad' are 50.4% (OR=0.496) lower than individuals not experiencing discrimination. For individuals who experienced SGM discrimination, the odds of having a better health status than 'very bad' are 21.7% (OR=0.783) lower. For the other health states presented in model 5, similar relationships can be found. For instance, the odds of a better health status than 'bad', having experienced multiple discrimination, are approximately 45.3% (OR=0.547) lower in comparison to individuals experiencing no discrimination. The odds of having a better health status than 'bad' for individuals who experienced SGM discrimination are 22.9% (OR=0.771) lower in comparison to individuals without a recent discriminatory experience.

The odds ratios in model 5, primarily the differences between odds ratios, provide evidence confirming the exacerbated health outcomes multiple discrimination can impose. However, this study's dataset allows for a more detailed investigation of multiple discrimination. More specifically, the creation of an alternative discrimination variable opens up the possibility of investigating how the association between discrimination and health changes upon the introduction of more forms of discrimination in one's discriminatory experience. The regression model containing the multiple discrimination variable (model 7) can be found in appendix C.

4.3.2. Multiple discrimination and its association with health

Contrary to the models used for the previous paragraphs, a likelihood ratio test for the model including the multiple discrimination variable (model 7) pointed to an unconstrained adaptation of GOLR as the most parsimonious. This means that the coefficients in model 7 are all unconstrained and thus somewhat different. The model shows a significance level of $p<0.00005$ and a pseudo R2 of 0.0812. This means that the model containing the elaborate discrimination variable is significant on a 95% confidence level and explains 8.12% of the variation in the dependent variable (i.e., health status). Out of all models, model 7 appears to explain the highest percentage of variability of the outcome variable.

The first noticeable characteristic of the multiple discrimination coefficients, is the omnipresence of an inverse relationship. For all health states, the OR's of multiple discrimination decrease as the number of forms of discrimination increase. It should be mentioned that the reference category for multiple discrimination is the population subgroup without recent discriminatory experiences. The odds of having a better health status than 'very bad' for individuals who experienced singular discrimination are 17.1% (OR=0.829) lower in comparison to individuals who did not experience discrimination, holding other variables constant. For individuals that experienced double discrimination, the odds of having a better health status than 'very bad' are 0.648 times lower in comparison to no experienced discrimination. For individuals who experienced discrimination based on three or four characteristics, the trend of lower odds ratios continues (OR=0.455: 0.289, respectively). The final category of multiple discrimination for this model includes all observations that indicated to have experienced discrimination based on more than four characteristics. For these individuals, the odds are the lowest. Namely, their odds of having a better health status than 'very bad' are 0.209 times lower in comparison to individuals who did not experience discrimination, holding all other variables constant.

With regard to the 'bad' health status category, the odds of having a better health status than 'bad' are 22.4% (OR=0.776) lower for individuals who experienced singular discrimination in comparison to individuals without (recent) discriminatory experiences, holding other variables constant. For double discrimination, these odds are 0.652 times lower and for discrimination based on three characteristics these odds are 0.483 times lower in comparison to individuals with no recent discriminatory experiences. Individuals who experienced discrimination based on four characteristics have odds at having a better health status than 'bad' that are 62.2% (OR=0.378) lower. For discriminatory experiences based on more than four characteristics, these odds are 75.1% (OR=0.249) lower in comparison to individuals who did not experience (recent) discrimination.

The odds of having a better health status than ‘fair’ for singular discrimination are 21.9% (OR=0.781) lower in comparison to individuals without a recent discriminatory experience, holding other variables constant. For double discrimination, the respective odds are 33.4% (OR=0.666) lower. In the case of discrimination based on three characteristics, the odds of having a better health status than ‘fair’ are 47% (OR=0.530) lower. The respective odds are 60.1% (OR=0.399) lower for individuals experiencing four forms of discrimination and 69.7% (OR=0.303) lower for individuals experiencing more than four forms of discrimination.

Finally, the odds of having a better health status than ‘good’ for singular discrimination are 15.4% (OR=0.846) lower in comparison to individuals without a (recent) discrimination experience, holding other variables constant. For double discrimination, the odds are 28.2% (OR=0.718) lower, whereas the odds for individuals who experienced three forms of discrimination are 45.5% (OR=0.545) lower. The odds for both multiple discrimination (4) and multiple discrimination (>4) are rather similar. For these two categories, the odds of having a health status better than ‘good’ are, respectively, 56.8% (OR=0.432) and 59.9% (OR=0.401) lower in comparison to individuals who did not have a recent discriminatory experience.

5. Discussion

5.1. Main findings, interpretations and implications

5.1.1. LGBTQIA+ health disparities

With regard to LGBTQIA+ health, one of the first striking results was that over 78% of respondents perceived their health as good or very good. This is significantly higher than the self-reported health perception of the general population (Eurostat, 2022). In the context of this study, such a result is surprising due to the consensus in the theoretical framework on the health vulnerabilities of sexual- and gender minorities compared to others. There are a couple of reasons why sexual- and gender minorities would perceive their health status more positively than the general population. First, as it has been established that sexual- and gender minorities are likely to have developed a strong sense of self, as well as being resilient (Meyer, 2003; Weinberg & Williams, 1974), it is possible that respondents of the EU-LGBTI II survey were more lenient, relative to the general population, in rating their health. Following this, it is possible that they rated their health more positively despite, and due to, the hardships in their lives. Second, considering the fact that the EU-LGBTI II survey was designed for LGBTQIA+ individuals, it is possible that the participants of the EU-LGBTI II survey rated their health relative to the health of sexual- and gender minorities, instead of rating their health without reference to certain population subgroups. Third, and finally, it is possible that sexual- and gender minorities rated their health more positively due to social desirability bias. According to Lavidas et al. (2022), social desirability bias can be problematic for studies in which self-reported data is involved that is related to one's sexuality. Following this, it is possible that sexual- and gender minorities were reluctant in including health complications originating from or related to their sexuality or gender identity in their self-reported health (e.g., HIV). Given the lack of studies explaining why sexual- and gender minorities would rate their health more positively than the general population, further investigation could be worthwhile.

Another interesting result was that bisexual individuals experienced fewer discriminatory events than lesbian individuals, yet model 5 indicated that they have higher odds of reporting a worse health status. The vulnerable position of bisexual individuals, women in particular, was already revealed by Lick et al. (2023) and more (Fredriksen-Goldsen et al., 2012; Dilley et al., 2010; Cochran & Mays, 2007; Case et al., 2004). According to Feinstein and Dyar (2017), there are two main reasons why the health status of bisexual individuals is disproportionate to those of other sexual minorities. The first reason is coined as 'binegativity', which entails that bisexual individuals encounter negative attitudes on their (bi-)sexuality being illegitimate or being more likely to be adulterous (Brewster & Moradi, 2010; Mohr & Rochlen, 1999). These negative attitudes do not only come from hetero- and cisnormative environments, but from within the LGBTQIA+

community as well. The second reason relates to the identity management of bisexual individuals. Mohr et al. (2017) stated that, in comparison to other sexual minorities, bisexual individuals often identify with multiple identities and are, partly because of this, more reluctant in being open about their sexual identity. Challenges in their identity management can lead to the expectation and internalization of stigma. Next to bisexual individuals, individuals with 'other' sexualities had even lower odds of having a better health status than lesbian individuals. According to Dyar et al. (2019), these individuals face similar challenges as bisexual individuals due to the non-monosexual nature of their sexual identity. Polysexual, asexual and pansexual individuals, too, are portrayed as being sexually reckless and uncertain about their sexuality. Dyar et al. (2019) add that the internalization of stigma as a result of the unique challenges they face not only leads to worse mental health, but to unhealthy behavioral responses as well. To answer the question which sexuality possessed the highest vulnerability in terms of health, the results of this thesis point to individuals with non-monosexual sexualities. Following this, hypothesis 1a cannot be supported because of the displayed vulnerability in health of individuals with 'other' sexualities.

In terms of gender identity, trans men, non-binary individuals and genderqueer/-fluid/agender/polygender possess the lowest odds. Previous research by Reisner & Hughto (2019) and Streed et al. (2018) is supportive of these results, explaining that non-binary individuals are the most vulnerable health-wise, due to challenges in health care access and quality. Scandurra et al. (2019) underline the effect that treatment refusal and discriminatory attitudes can have on the health of a gender nonconforming individual and on their willingness to seek health care in the future. These challenges are faced by transgender individuals as well. They add that the health differences for non-binary, genderqueer/-fluid/agender/polygender individuals (NBGQ) and transgender individuals can be explained by their gender-nonconformity. According to Lin et al. (2021), their inability to conform to a binary gender system makes NBGQ individuals more susceptible to negative attitudes, discrimination, victimization and more, ultimately leading to worse health effects. The results of this thesis point to gender-nonconforming individuals as the most vulnerable health-wise, with non-binary individuals in particular. Following this, hypothesis 1b is not supported due to genderqueer/-fluid/agender/polygender and non-binary individuals having a stronger negative association with health than other gender identities.

5.1.2. Health and discrimination among sexual- and gender minorities

This study showed that the health of individuals part of the LGBTQIA+ community is negatively associated with discriminatory experiences related to their sexuality or gender identity. Their odds of having a better health status than LGBTQIA+ individuals without recent discriminatory experiences are consistently lower. These findings are not surprising and are supported by existing theories and previous research by Meyer

(2003) and Bränstrom et al. (2016), amongst others. Model 5 also indicated that the health of individuals experiencing multiple discrimination as opposed to SGM discrimination and no discriminatory experiences, typically has a stronger negative association with discrimination. This study therefore provides preliminary support for the double disadvantage hypothesis, as laid out and investigated by Moncrief et al. (1991) and Denise (2014). Subsequently, this study supports hypothesis 2a, which entails that SGM individuals who recently experienced SGM discrimination are more likely to have a worse health status than SGM individuals without these discriminatory experiences. Hypothesis 2b is supported as well, as it states that SGM individuals who experienced multiple discrimination are more likely to indicate a worse health status than SGM individuals who did not experience multiple discrimination.

Considering the fact that this study uses a discrimination variable that focuses on recent discriminatory experiences, it is questionable whether a recent discriminatory experience actually has the potential to cause such differences in self-reported health. There are two factors which potentially added to the aforementioned health disparities. First, it is possible that a recent discriminatory experience is indicative of multiple occasions of discrimination in an individual's life. Bonilla-Silva (2006) and Reskin (2012) plead that discrimination is a phenomenon that can produce health disparities over one's life course. Some forms of discrimination are based on sociodemographic characteristics that one carries with them during their life. Other forms of discrimination are based on characteristics that are visually recognizable (e.g., ethnicity). For these forms of discrimination, the occurrence of multiple discriminatory experiences over the life course is more likely (Statistics Canada, 2018). Following this, it is worth questioning whether the health effects as a result of discrimination are strong because of a discriminatory event, or whether the discriminatory event is indicative of the role of discrimination in one's life and how this translates to one's health status. A second explanation is that a recent discriminatory experience could potentially affect one's mental health on the short-term. Scholars have pointed out time-dependency as a drawback of self-rated health (Idler & Benyamini, 1997; Lorem et al., 2020; Lyyra et al., 2009). Following this, even though an individual would report the actual perception of their mental health at that time, it is a snapshot and not necessarily representative of their overall health over a longer period of time (Lorem et al., 2020). The use of a recent discrimination variable has the potential to emphasize the time-dependency of self-reported health. Despite these factors potentially affecting the strength of the association between discrimination and health, they are unlikely to change the direction.

5.1.3. Sexuality and gender identity as mediators

The mediating role of sexualities and gender identities in the association between discrimination and health has, for the most part, been refuted by this study. In terms of sexuality, the results showed that bisexual

individuals and individuals with 'other' sexualities significantly mediated the relationship between SGM discrimination and health, in comparison to lesbian individuals. Despite the significance of both categories, the mediating effect of sexuality is lacking. Both sexuality categories indicated to experience a weaker association between discrimination and health than the latter. For bisexual individuals, the difference can be partly due to a lower proportion of discriminatory experiences. Previous research suggests that the vulnerability of lesbians to discrimination may be due to the fact that they are women. The Center for American Progress (2015) links LGBTQIA+ womanhood to additional barriers in health care access. Moreover, being a woman inherently translates to an additional minority group status, which is likely to lead to a more negative association with discrimination following the minority stress framework. However, the majority of existing literature agrees that other sexualities (e.g., bisexual, other) would be more vulnerable to discrimination in terms of health. With regard to gender identities, 'other' gender identities and the non-binary category significantly mediate the association between discrimination and health. For 'other' gender identities, the negative association between SGM discrimination and health is stronger. This is in line with previous research due to the minority status of the latter in comparison to cisgender individuals. Gender identity minorities are more susceptible to discriminatory experiences, barriers in health care access as a result of discrimination and unhealthy coping mechanisms (Streed et al., 2017; Balik et al., 2019; Parent et al., 2019). Non-binary individuals experiencing multiple discrimination showed a more positive association between discrimination and health than cisgender individuals. This is surprising to say the least. Moreover, existing literature does not provide an explanation for this result. In general, considering the fact that cisgender individuals were the reference category, it would be expected for all gender identity minorities to mediate the association between discrimination and health. Despite the significance of four sexuality or gender identity coefficients, the majority of their mechanisms with discrimination and health contributing to the significance remain unclear. According to Bowleg (2008) and Cole (2009), the absence of significance and clarity of the interaction variables in relation to health could be due to the nature of intersectionality research. They state that interactions in intersectional studies are difficult to expose because of the difficulty in linking identity characteristics in sexualities and gender identities to their specific discriminatory experiences. They add that the respective difficulty also stems from the superior strength in the associations between the main effects of sexuality/gender identity and health in comparison to the strength of interaction effects in relation to health. Nevertheless, the mediating role of sexuality and gender identity cannot be confirmed, which answers this study's research sub-question and subsequently leads to a lack of support for hypothesis 3.

5.1.4. Multiple discrimination

The inclusion of an elaborate discrimination variable in model 7 confirmed that experiencing discrimination based on multiple sociodemographic characteristics decreases the odds of having a health status that is better than individuals either having no recent discriminatory experiences, or having a recent SGM discriminatory experience. The trend in which the odds of having a better health status decrease as the forms of discrimination increase, continues beyond experiencing two forms of discrimination. Model 7 confirmed the existence of an inverse relationship between health and multiple discrimination.

Upon inspection of the size of and size differences between the odds of certain multiple discrimination categories, it is noticeable that the effect of an additional form of discrimination on health attenuates after a number of forms of discrimination. Particularly, when comparing the differences between health effects of certain forms of multiple discrimination, the category of more than four forms of multiple discrimination shows comparatively low odds. It makes sense that, as one progresses through health state rows, the difference in the odds of having a better health status than the reference category decreases, because at one point there are no more health states better than 'very good'. This applies to multiple discrimination (>4) as well, although the difference in coefficients with multiple discrimination (4) is striking. The differences between categories imply that, at a certain point, an additional form of discrimination in one's discriminatory experience does not affect health status as much as additional forms of discrimination in discriminatory experiences with fewer forms of discrimination involved. These results are in line with the work of Raver & Nishii (2010), who suggest that the association between multiple discrimination and health is more likely to have an inuring nature. One possible mechanism in the so-called habituation effect, is the development of coping mechanisms. One in particular, individual resilience, especially among LGBTQIA+ individuals, is known to be able to diminish the effects of discrimination. According to Meyer (2015), the resilience of individuals who encounter discrimination is likely to strengthen as the forms of discrimination they encounter increase. Another mechanism is discussed by Cyrus (2017), who states that individuals with multiple minority statuses are more likely to be aware of these minority statuses. Consequently, these individuals are also more likely to be aware of and familiar with the available resources capable of dealing with stress and other health consequences associated with discrimination. As previous literature has proven the effectiveness of these resources (Bry et al., 2017), the respective use has the potential to weaken the negative association between discrimination and health. Altogether, these results and their interpretations conclude that the association between multiple discrimination and health has an inuring nature. Consequently, hypothesis 4 can be confirmed, but with the notion that, even though additional forms of discrimination add to the discrimination-health association, their strength attenuates past a certain number of forms of discrimination.

5.2. Strengths and limitations

The majority of this study's strengths stem from its inclusive nature. In comparison to other studies, this study moved away from the convention to include homosexual men and lesbian women in sexuality studies and included bisexuals and individuals with sexualities categorized as 'other' as well. Moreover, this study makes comparisons between deviant sexualities, instead of comparing the health effects of heterosexual individuals to, for instance, homosexual individuals. In terms of gender identity, this study adopted a neoteric approach as well. Gender identity is not often included in LGBTQIA+ research. The scholars that did focus on gender identity would employ a rather restricted categorization of gender identity (e.g., men and women or cisgender and non-cisgender). Alternatively, this study compares individuals whom identify as cisgender with individuals whom identify as a transgender woman, a transgender man, non-binary, genderqueer-/fluid/agender/polygender, or as other. Another inclusive aspect of this study can be found in the creation of a multiple discrimination variable. In discrimination research, individuals experiencing various forms of discrimination at the same time or during different occasions are often not included. The application of the intersectionality theory enabled this study to investigate the potential changes in self-reported health after an additional experienced form of discrimination for sexual- and gender minorities. Overall, this study distinguishes itself by investigating associations and mechanisms for and within population subgroups that are commonly overlooked, and therefore contributing considerably to current research.

Despite this study's inclusivity efforts, there are certain components in the discrimination-health association not included in this study. First, the only distinction between forms of discrimination in this study is based on one's sexuality and/or gender identity. Other forms of discrimination (e.g., age, religion, ethnicity) are not specified. This means that their effects are included when discussing multiple discrimination, but these effects are not isolated from the effects of other forms of discrimination. Following this, not only the health effects of forms of discrimination other than SGM discrimination are missing, it also prohibits this study from investigating reciprocal action in discrimination and its association with health. In order to thoroughly investigate multiple discrimination and intersectionality, specification of the forms of discrimination and their interactions is recommended. Second, there is more to discrimination than just the forms of discrimination that one can experience. In order to comprehensively study the concept of discrimination and predict its association with health, other aspects of discrimination such as intensity and frequency, but also occasions of discrimination (e.g., work, health care), should be considered as well. Moreover, this study employs a recent discrimination variable. Research has shown that recent discriminatory experiences are likely to have a larger impact on mental health than other aspects of health (Benschop & Schedlowksi, 1999). As a result, this study is limited as well in making statements on general health because of the

knowledge that not all aspects of general health have a similar association with recent discrimination. Third, the role of coping in the discrimination-health association is not included in the study design and statistical models. In this study, coping serves as a possible explanation for health disparities found between LGBTQIA+ individuals with different discriminatory experiences. The exclusion of coping limits this study in exploring what coping mechanisms are effective in mediating the association between discrimination and health for LGBTQIA+ individuals and if there are differences in effectiveness depending on the discriminatory experience and SGM status. And fourth, inclusivity in terms of the health variable could have contributed to the results generated by this study. The self-reported general health variable of this study limits its ability to explore the association between discrimination and several separate aspects of health.

The use of subjective variables is a common thread in this study. The dependent variable (i.e., self-reported health) and main independent variable (i.e., perceived discrimination) both have a subjective nature. As previously mentioned, it is acceptable and feasible to use these variables in quantitative research (Idler & Benyamini, 1997; Ferraro & Farmer, 1999). However, the use of subjective variables limits this study in several ways. On an individual-level, it is possible for measurement errors to occur. This means that health or discriminatory experiences are, for example, over- or underestimated by the respondent for various reasons. These over- and underestimations are likely to affect the accuracy of the respective variable, ultimately decreasing the study's ability to accurately depict the association between health and discrimination for SGM individuals. Additionally, subjective variables such as these are subject to social desirability bias. The inclination to report health and discriminatory experiences in a way that makes one appear to be superior over others, can lead to over- and underestimations as well. On a larger scale, the use of subjective variables can have consequences as well. For both health and discrimination, it is possible that certain populations use different definitions or have different ways of evaluating their health or discriminatory experiences. Following this, structural differences between population sub-groups could emerge when employing subjective variables. Despite efforts of the survey distributor to correct for cross-country differences, they did not account for differences between populations within a country. This has the potential to not only lead to inaccurate representations of certain populations and their health or discriminatory experiences, but it could ultimately lead to faulty policy interventions.

Finally, a considerable limitation of this study stems from its cross-sectional nature. Following this, it is not statistically sound to make inferences about causality between discrimination and health. Even though the option of reverse causality has been deemed unlikely by other scholars (Bastos, et al., 2014), statements on the association between discrimination and health should be done carefully. In order to infer more about causality and to be able to generalize the results of the study, a longitudinal approach is recommended.

5.3. Future research recommendations

The execution of this study gave rise to two main directions for future research on or adjacent to health, discrimination and SGM individuals. First, more efforts are required in researching multiple discrimination with a focus on intersectionality and interactions between different forms of discrimination. There remains a lot of information to be uncovered on different discriminatory experiences in terms of forms of discrimination, frequency and intensity, as well as how these discriminatory experiences interact with each other, sexualities and gender identities. The subsequent results are likely to contribute considerably to the current research gaps in the academic fields of discrimination and intersectionality. In general, this study exhibited results in line with the inuring character of multiple discrimination. However, the association between multiple discrimination and health can differ for different combinations of forms of discrimination. This means that for certain combinations, their association with health could be additive or multiplicative instead of inuring. In order to contribute to research on the nature of multiple discrimination and to provide policymakers with information that is as thorough as possible, specification of different dimensions of discrimination and their interactions is essential as well.

Second, future research could benefit from investigating the concept of 'coping'. It is an important aspect in this study's conceptual model of discrimination being transformed into stress and eventually leading to health effects. However, due to a lack of data and resources, its part in the discrimination-health association was not accounted for in this study's regression models and results. As mentioned before, there are certain individual- and community-level resources and coping techniques that can be employed as a means to mediate the discrimination-health association. There is little evidence on the extent to which coping can negate health effects, as well as differences in effectiveness among different ways of coping. This applies to coping mechanisms that could lead to negative health effects as well. In the setting of this study, a focus on coping and its possible health negating effects for sexual- and gender minorities has the potential to uncover information relevant on both the individual and community level. On the individual-level, information on the effectiveness of coping could aid queer people in navigating the stress originating from discrimination by means of identifying appropriate and effective coping mechanisms. On the community-level, relevant information on coping can help policymakers to (re)direct resources to effective coping mechanisms, as well as make these coping mechanisms more accessible and widespread. Moreover, research on the effectiveness of coping for the health of LGBTQIA+ individuals experiencing discrimination would contribute to the quality and quantity of research within the respective academic field.

6. Conclusion

From this study, the conclusion can be drawn that a negative association between discrimination and health exists for LGBTQIA+ individuals in Europe. The experience of discrimination in opposition to not experiencing it, increases the odds of reporting worse health outcomes. This is in line with the minority stress theory. What's more, the association between discrimination and health becomes stronger upon the experience of an additional form of discrimination. However, this study indicated that past a certain point, increments in the forms of discrimination experienced, caused the discrimination-health association to attenuate. In terms of sexualities and gender identities, bisexuals, individuals with 'other' deviant sexualities, non-binary individuals and genderqueer/-fluid/agender/polygender individuals appeared to have the most vulnerable health. However, none of these sexualities or gender identities appeared to mediate the association between discrimination and health in a reasonable way that is in line with previous research or this study's expectations.

The conclusions of this study attest to the fact that for minority groups, in this case LGBTQIA+ individuals, more efforts and attention are needed in dealing with discrimination. The results of this study call for more inclusive and comprehensive studies on discrimination and health in order to gain extensive knowledge which can be used to better the position of sexual- and gender minorities in society. Such endeavors can provide knowledge to relevant actors which they can employ in designing, for example, legislative installations and health care treatment plans. The required efforts are not limited to scholars, policymakers, lawmakers, and other professionals, but includes the general public as well. Since discrimination is inseparable from people's behavior, it is also up to the general public in lowering the prevalence of discrimination by reflecting on one's own and other people's behavior and their treatment of minorities.

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Appendix A

Appendix A contains the syntax that was used in order to create the multiple discrimination variable of this study. This was possible due to the presence of variable C3 in the EU-LGBTI II survey. In the syntax below, 'cml_md' was the previous variable name of the variable currently known as the multiple discrimination variable.

```
clear
gen cml_md=0
replace C3_B=2 if C3_B==-2
replace C3_C=2 if C3_C==-2
replace C3_D=2 if C3_D==-2
replace C3_E=2 if C3_E==-2
replace C3_F=2 if C3_F==-2
replace C3_G=2 if C3_G==-2
replace C3_H=2 if C3_H==-2
replace C3_I=2 if C3_I==-2
replace C3_J=2 if C3_J==-2
replace C3_K=2 if C3_K==-2
replace cml_md=1 if C3_A==-2 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2
& C3_K==2
replace cml_md=2 if C3_A==1 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2
& C3_K==2
replace cml_md=3 if C3_A==2 & C3_B==1 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2
& C3_K==2
replace cml_md=3 if C3_A==2 & C3_B==2 & C3_C==1 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2
& C3_K==2
replace cml_md=3 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2
& C3_K==2
replace cml_md=3 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2
& C3_K==2
replace cml_md=3 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==1 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2
& C3_K==2
replace cml_md=3 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==1 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2
& C3_K==2
replace cml_md=3 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==1 & C3_H==2 & C3_I==2 & C3_J==2
& C3_K==2
replace cml_md=3 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==1 & C3_I==2 & C3_J==2
& C3_K==2
replace cml_md=3 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==1 & C3_J==2
& C3_K==2
replace cml_md=3 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==1
& C3_K==2
replace cml_md=3 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2
& C3_K==1

replace cml_md=4 if C3_A==2 & C3_B==1 & C3_C==2 & C3_D==1 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2
& C3_K==2
replace cml_md=4 if C3_A==2 & C3_B==1 & C3_C==2 & C3_D==2 & C3_E==1 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2
& C3_K==2
replace cml_md=4 if C3_A==2 & C3_B==1 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==1 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2
& C3_K==2
replace cml_md=4 if C3_A==2 & C3_B==1 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==1 & C3_H==2 & C3_I==2 & C3_J==2
& C3_K==2
replace cml_md=4 if C3_A==2 & C3_B==1 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==1 & C3_I==2 & C3_J==2
& C3_K==2
replace cml_md=4 if C3_A==2 & C3_B==1 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==1 & C3_J==2
& C3_K==2
replace cml_md=4 if C3_A==2 & C3_B==1 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==1
& C3_K==2
replace cml_md=4 if C3_A==2 & C3_B==1 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2
& C3_K==1
replace cml_md=4 if C3_A==2 & C3_B==2 & C3_C==1 & C3_D==1 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2
& C3_K==2
```

```
replace cml_md=4 if C3_A==2 & C3_B==2 & C3_C==1 & C3_D==2 & C3_E==1 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2 & C3_K==2
replace cml_md=4 if C3_A==2 & C3_B==2 & C3_C==1 & C3_D==2 & C3_E==2 & C3_F==1 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2 & C3_K==2
replace cml_md=4 if C3_A==2 & C3_B==2 & C3_C==1 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==1 & C3_H==2 & C3_I==2 & C3_J==2 & C3_K==2
replace cml_md=4 if C3_A==2 & C3_B==2 & C3_C==1 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==1 & C3_I==2 & C3_J==2 & C3_K==2
replace cml_md=4 if C3_A==2 & C3_B==2 & C3_C==1 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==1 & C3_J==2 & C3_K==2
replace cml_md=4 if C3_A==2 & C3_B==2 & C3_C==1 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==1 & C3_K==2
replace cml_md=4 if C3_A==2 & C3_B==2 & C3_C==1 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2 & C3_K==1
replace cml_md=4 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==1 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2 & C3_K==2
replace cml_md=4 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==2 & C3_F==1 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2 & C3_K==2
replace cml_md=4 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==2 & C3_F==2 & C3_G==1 & C3_H==2 & C3_I==2 & C3_J==2 & C3_K==2
replace cml_md=4 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==1 & C3_I==2 & C3_J==2 & C3_K==2
replace cml_md=4 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==1 & C3_J==2 & C3_K==2
replace cml_md=4 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==1 & C3_K==2
replace cml_md=4 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2 & C3_K==1
replace cml_md=4 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==1 & C3_F==1 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2 & C3_K==2
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replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==1 & C3_F==2 & C3_G==1 & C3_H==2 & C3_I==2 & C3_J==2 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==1 & C3_F==2 & C3_G==2 & C3_H==1 & C3_I==2 & C3_J==2 & C3_K==2
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replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==1 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==1 & C3_J==2 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==1 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==1 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==1 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2 & C3_K==1
replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==2 & C3_F==1 & C3_G==1 & C3_H==2 & C3_I==2 & C3_J==2 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==2 & C3_F==1 & C3_G==2 & C3_H==1 & C3_I==2 & C3_J==2 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==2 & C3_F==1 & C3_G==2 & C3_H==2 & C3_I==1 & C3_J==2 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==2 & C3_F==1 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==1 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==2 & C3_F==1 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2 & C3_K==1
replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==2 & C3_F==2 & C3_G==1 & C3_H==1 & C3_I==2 & C3_J==2 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==2 & C3_F==2 & C3_G==1 & C3_H==2 & C3_I==1 & C3_J==2 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==2 & C3_F==2 & C3_G==1 & C3_H==2 & C3_I==2 & C3_J==1 & C3_K==2
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replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==1 & C3_I==2 & C3_J==2 & C3_K==1
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replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==1 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==1 & C3_J==2 & C3_K==1
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replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==1 & C3_F==2 & C3_G==2 & C3_H==1 & C3_I==1 & C3_J==2 & C3_K==2
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replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==1 & C3_F==2 & C3_G==2 & C3_H==1 & C3_I==2 & C3_J==2 & C3_K==1
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replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==1 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==1 & C3_J==2 & C3_K==1
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replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==1 & C3_G==1 & C3_H==1 & C3_I==2 & C3_J==2 & C3_K==2
```

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replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==1 & C3_G==1 & C3_H==2 & C3_I==1 & C3_J==2 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==1 & C3_G==1 & C3_H==2 & C3_I==2 & C3_J==1 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==1 & C3_G==1 & C3_H==2 & C3_I==2 & C3_J==2 & C3_K==1
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replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==1 & C3_H==2 & C3_I==1 & C3_J==1 & C3_K==2
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replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==1 & C3_H==2 & C3_I==2 & C3_J==1 & C3_K==1
replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==1 & C3_I==1 & C3_J==1 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==1 & C3_I==1 & C3_J==2 & C3_K==1
replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==1 & C3_I==2 & C3_J==1 & C3_K==1
replace cml_md=5 if C3_A==2 & C3_B==2 & C3_C==2 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==1 & C3_J==1 & C3_K==1
replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==1 & C3_E==1 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==1 & C3_E==2 & C3_F==1 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==1 & C3_E==2 & C3_F==2 & C3_G==1 & C3_H==2 & C3_I==2 & C3_J==2 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==1 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==1 & C3_I==2 & C3_J==2 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==1 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==1 & C3_J==2 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==1 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==1 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==1 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2 & C3_K==1
replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==2 & C3_E==1 & C3_F==1 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==2 & C3_E==1 & C3_F==1 & C3_G==1 & C3_H==2 & C3_I==2 & C3_J==2 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==2 & C3_E==1 & C3_F==2 & C3_G==2 & C3_H==1 & C3_I==2 & C3_J==2 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==2 & C3_E==1 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==1 & C3_J==2 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==2 & C3_E==1 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==1 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==2 & C3_E==1 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==2 & C3_K==1
replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==2 & C3_E==2 & C3_F==1 & C3_G==1 & C3_H==2 & C3_I==2 & C3_J==2 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==2 & C3_E==2 & C3_F==1 & C3_G==2 & C3_H==1 & C3_I==2 & C3_J==2 & C3_K==2
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replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==2 & C3_E==2 & C3_F==1 & C3_G==2 & C3_H==2 & C3_I==1 & C3_J==2 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==2 & C3_E==2 & C3_F==1 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==1 & C3_K==2
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replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==1 & C3_H==1 & C3_I==2 & C3_J==2 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==1 & C3_H==2 & C3_I==1 & C3_J==2 & C3_K==2
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replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==1 & C3_I==2 & C3_J==1 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==1 & C3_I==2 & C3_J==2 & C3_K==1
replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==1 & C3_J==1 & C3_K==2
replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==1 & C3_J==2 & C3_K==1
replace cml_md=5 if C3_A==2 & C3_B==1 & C3_C==1 & C3_D==2 & C3_E==2 & C3_F==2 & C3_G==2 & C3_H==2 & C3_I==2 & C3_J==1 & C3_K==1

replace cml_md=6 if cml_md==0

label define cmlll 1 "No perceived discrimination" 2 "Singular discrimination" 3 "Double discrimination" 4 "Multiple discrimination (3)" 5 "Multiple discrimination (4)" 6 " Multiple discrimination (>4)"
label values cml_md cmlll
```

Appendix B

Appendix B contains additional information on this thesis conveyed through tables and figures. The figure below represents the conceptual model of the minority stress framework by Meyer (2003). It is visible that this image contains some of the concepts used and operationalized for this thesis, but also contains concepts that were not included. Examples include the distinction between minority status and identity, and the characteristics of minority identities affecting the stress processes in the association between discrimination and health. The most important difference between the conceptual model of this thesis and Meyer's model, is the inclusion of intersectionality and thus the operationalization of multiple discrimination.

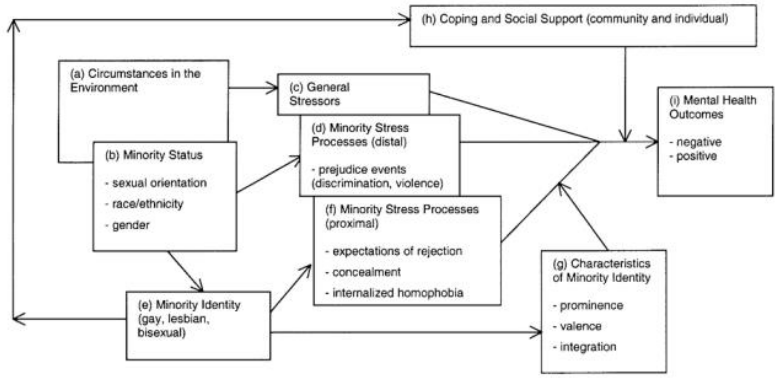

Figure 1: Meyer's (sexual) minority stress framework (Meyer, 2003).

The table below presents the correlation between discrimination and health. This correlation output was obtained through the execution of Spearman's rho. It shows a negative, weak association between both variables. Simply put, this means that, as discrimination goes up, health is likely to go down. This thesis partially explains the weakness of the association through the use of data and variables. For instance, the discrimination variable of this study originates from a discrimination question asking for one's most recent discriminatory experience. This does not fully capture the presence of discrimination and its consequences in and for one's life. Additionally, the health variable used in this thesis refers to one's general self-reported health. Following this, it is possible that certain discriminatory events have a big impact on certain aspects of one's health, but this would not be very visible due to the use of a general self-reported health variable.

Spearman's Rho	
	Discrimination
Health	-.1391

Table 4: Spearman's rho results presenting the strength of the correlation between health and discrimination.

Table 5 presents a contingency table between discrimination and sexuality in order to see whether there is an indication of a correlation between the two. It is visible that, out of all respondents, the individuals who identify as gay are the most likely to indicate that they did not have a recent discriminatory experience (59.35%), followed closely by bisexual (59.30%) and lesbian (50.90%) individuals. For SGM discrimination, gay individuals, again, are the most frequent (27.44%), followed by lesbian (25.14%) and 'other' (22.63%) individuals. Finally, in terms of multiple discrimination, individuals with 'other' sexualities are the most likely to experience this (39.24%), followed by lesbian (23.96%) and bisexual (23.19%) individuals. While looking at the frequencies of discriminatory experiences within separate sexuality groups, all sexualities except for 'other' are more likely to have no recent discriminatory experience in comparison to other discriminatory experiences. Between SGM discrimination and multiple discrimination, lesbian and gay individuals are the most likely to experience the former, whereas bisexual and 'other' individuals are more likely to experience the latter.

Tabulation of Discrimination and Sexuality

	Sexuality				
Discrimination	Lesbian	Gay	Bisexual	Other	Total
No perceived discrimination	12991	35763	25685	1813	76252
	17.04	46.90	33.68	2.38	100.00
	50.90	59.35	59.30	38.13	56.97
SGM discrimination	6416	16535	7584	1076	31611
	20.30	52.31	23.99	3.40	100.00
	25.14	27.44	17.51	22.63	23.62
Multiple discrimination	6114	7960	10045	1866	25985
	23.53	30.63	38.66	7.18	100.00
	23.96	13.21	23.19	39.24	19.41
Total	25521	60258	43314	4755	133848
	19.07	45.02	32.36	3.55	100.00
	100.00	100.00	100.00	100.00	100.00

Pearson Chi2 = 4393.84 Prob = 0.0000

First row has *frequencies*; second row has *row percentages* and third row has *column percentages*

Table 5: A tabulation of the categories of perceived discrimination and sexuality.

Table 6 presents a contingency table as well, but this time centered around gender identity and discrimination. It is immediately visible that there is a big difference between cisgender individuals and individuals with deviating gender identities in terms of their discriminatory experiences. Out of all respondents indicating that they did not experience recent discrimination, cisgender individuals were represented the most (59.62%), followed by genderqueer/-fluid/agender/polygender individuals (45.05%). In terms of SGM discrimination, trans women and men were the most likely to be victimized in this manner (42.85%; 38.15%, respectively). This is not the case for multiple discrimination. In terms of these discriminatory experiences, genderqueer/-fluid/agender/polygender individuals were represented the most (43.40%), closely followed by non-binary people (41.86%). When looking at the differences within gender identity groups, cisgender individuals are more likely to have no recent discriminatory experiences as opposed to SGM discrimination and multiple discrimination. Trans women and men are both more likely to experience SGM discrimination. Non-binary individuals are the most likely to experience multiple discrimination, although there is barely a difference with their likelihood of having no recent discriminatory experiences. Finally, genderqueer/-fluid/agender/polygender individuals and individuals with 'other' gender identities have a higher likelihood of having no recent discriminatory experiences, followed closely by multiple discrimination.

Tabulation of Discrimination and Gender identity

Discrimination	Gender identity						
	Cisgender	Trans woman	Trans man	Non-binary	Genderqueer /fluid/agender/polygender	Other	Total
No perceived discrimination	69204	925	1068	1802	2493	760	76252
	90.76	1.21	1.40	2.36	3.27	1.00	100.00
	59.62	35.74	29.59	41.59	45.05	44.63	56.97
SGM discrimination	27435	1109	1377	717	639	334	31611
	86.79	3.51	4.36	2.27	2.02	1.06	100.00
	23.63	42.85	38.15	16.55	11.55	19.61	23.62
Multiple discrimination	19442	554	1164	1814	2402	609	25985
	74.82	2.13	4.48	6.98	9.24	2.34	100.00
	16.75	21.41	32.25	41.86	43.40	35.76	19.41
Total	116081	2588	3609	4333	5534	1703	133848
	86.73	1.93	2.70	3.24	4.13	1.27	100.00
	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Pearson Chi2 = 6095.35 Prob = 0.0000
First row has *frequencies*; second row has *row percentages* and third row has *column percentages*

Table 6: A tabulation of the categories of perceived discrimination and gender identity.

The table below (table 7) shows a collection of likelihood-ratio tests for all three models that were used in this thesis to achieve its research objectives. The rationale behind employing likelihood-ratio tests, was to find out whether a constrained or unconstrained adaptation of generalized ordinal logistic regression was the most parsimonious in the process of obtaining regression results for the respective selected variables. In the table, it is visible that the likelihood-ratio tests for model 5 and model 6 produced a chi2-value that translated to a p-value above 0.05, whereas the chi2-value for model 7 translated to a p-value under 0.05. This means that the likelihood-ratio tests for models 5 and 6 were not significant and pointed to a constrained adaptation of GOLR as the most parsimonious, whereas the likelihood-ratio test for model 7 was significant and pointed to an unconstrained adaptation of GOLR as the most parsimonious.

	Likelihood-ratio test results		
	Model 5	Model 6	Model 7
LR chi2	55.35 (48)	98.40 (96)	88.71 (63)
Prob > chi2	0.2170	0.4130	0.0181

Table 7: A collection of LR tests indicating the most parsimonious model options for models 5, 6 and 7.

Table 8 presents the Brant test that was executed to find out whether the model building for model 7 violated the proportional odds assumption. Given the chi2-values and the corresponding majority of significant p-values, it can be concluded that this Brant test points to a violation of the aforementioned assumption. This means that, once again, in order to answer this thesis' questions on multiple discrimination and health, generalized ordinal logistic regression should be resorted to instead of running a 'regular' ordinal logistic regression.

Variable	chi2	p>chi2	df
All	591.47	0.000	51
2. Multiple discrimination	17.98	0.000	3
3. Multiple discrimination	6.69	0.082	3
4. Multiple discrimination	6.58	0.086	3
5. Multiple discrimination	6.68	0.083	3
6. Multiple discrimination	15.18	0.002	3
2. Sexuality	58.74	0.000	3
3. Sexuality	1.89	0.595	3
4. Sexuality	4.08	0.253	3
2. Gender identity	11.83	0.008	3
3. Gender identity	7.32	0.062	3
4. Gender identity	8.98	0.030	3
5. Gender identity	34.81	0.000	3
6. Gender identity	47.18	0.000	3
Age	20.74	0.000	3
Education	114.77	0.000	3
Finances	83.06	0.000	3
Country	44.39	0.000	3

Table 8: Brant test pointing out a violation of the proportional odds assumption.

Appendix C

Table 10: Generalized ordinal logistic regression (GOLR) output for model 6.

Variables	(1) Health
Discrimination	
SGM discrimination	0.741**
	(0.087)
Multiple discrimination	0.479***
	(0.050)
Sexuality	
Gay	1.362***
	(0.142)
Bisexual	0.809***
	(0.017)
Other	0.679***
	(0.036)
Gender identity	
Trans woman	0.601***
	(0.038)
Trans man	0.521***
	(0.031)
Non-binary	0.426***
	(0.021)
Genderqueer/-fluid/a-/polygender	0.341***
	(0.045)
Other	0.386***
	(0.076)
Discrimination#Sexuality	
SGM discrimination#Gay	1.057
	(0.037)
SGM discrimination#Bisexual	1.125***
	(0.044)
SGM discrimination#Other	1.297***
	(0.116)
Multiple discrimination#Gay	1.033
	(0.040)
Multiple discrimination#Bisexual	1.012
	(0.038)
Multiple discrimination#Other	1.050
	(0.080)
Discrimination#Gender identity	
SGM discrimination#Trans woman	0.970
	(0.085)
SGM discrimination#Trans man	0.877
	(0.072)
SGM discrimination#Non-binary	1.028
	(0.094)
SGM discrimination#Genderqueer/-fluid/a-/polygender	0.894
	(0.081)
SGM discrimination#Other	0.622***
	(0.079)

Multiple discrimination#Trans woman	1.046
	(0.108)
Multiple discrimination#Trans man	0.927
	(0.078)
Multiple discrimination#Non-binary	1.211***
	(0.084)
Multiple discrimination#Genderqueer/-fluid/a-/polygender	1.032
	(0.062)
Multiple discrimination#Other	0.842*
	(0.088)
Age	
18-24	1.273**
	(0.130)
25-29	1.191
	(0.165)
30-34	1.038
	(0.027)
35-39	0.978
	(0.027)
40-44	0.867***
	(0.025)
45-49	0.761***
	(0.025)
50-54	0.546***
	(0.113)
55-59	0.527***
	(0.022)
60-64	0.489***
	(0.027)
65+	0.421***
	(0.025)
Education	
Primary education	2.924***
	(0.903)
Lower secondary education	3.478***
	(0.945)
Upper secondary education	5.580***
	(1.476)
Post-secondary education	5.907***
	(1.643)
Bachelor or equivalent	7.558***
	(2.069)
Master or equivalent	8.920***
	(2.557)
Doctoral or equivalent	7.003***
	(2.938)
Finances	
Difficult	2.634***
	(0.346)
Some difficulty	4.585***
	(0.545)
Fairly easily	10.610***
	(1.544)
Easily	10.050***
	(1.613)
Very easily	9.653***
	(2.119)

Country	
Belgium	0.575
	(0.233)
Bulgaria	0.313***
	(0.120)
Croatia	0.387*
	(0.200)
Cyprus	0.243**
	(0.146)
Czech Republic	0.914*
	(0.048)
Denmark	0.226***
	(0.066)
Estonia	0.379**
	(0.155)
Finland	0.364***
	(0.083)
France	0.313***
	(0.061)
Germany	0.516***
	(0.098)
Greece	1.002
	(0.347)
Hungary	0.560*
	(0.175)
Ireland	0.278***
	(0.087)
Italy	0.815
	(0.224)
Latvia	0.493
	(0.293)
Lithuania	0.738
	(0.387)
Luxembourg	0.713***
	(0.079)
Malta	1.072
	(1.083)
Netherlands	0.372***
	(0.105)
Poland	0.471***
	(0.021)
Portugal	0.431***
	(0.138)
Romania	1.219
	(0.571)
Slovakia	0.395***
	(0.132)
Slovenia	0.623***
	(0.054)
Spain	0.628**
	(0.129)
Sweden	0.145***
	(0.033)
United Kingdom	0.196***
	(0.034)
Intercept	31.657***
	(9.708)
Bad: Discrimination	
Bad: SGM discrimination	0.729***

	(0.033)
Bad: Multiple discrimination	0.529***
	(0.023)
Bad: Sexuality	
Bad: Gay	1.515***
	(0.058)
Bad: Bisexual	0.809***
	(0.017)
Bad: Other	0.679***
	(0.036)
Bad: Gender identity	
Bad: Trans woman	0.601***
	(0.038)
Bad: Trans man	0.521***
	(0.031)
Bad: Non-binary	0.426***
	(0.021)
Bad: Genderqueer/-fluid/a-/polygender	0.458***
	(0.028)
Bad: Other	0.654***
	(0.068)
Discrimination#Sexuality	
Bad: SGM discrimination#Gay	1.057
	(0.037)
Bad: SGM discrimination#Bisexual	1.125***
	(0.044)
Bad: SGM discrimination#Other	1.297***
	(0.116)
Bad: Multiple discrimination#Gay	1.033
	(0.040)
Bad: Multiple discrimination#Bisexual	1.012
	(0.038)
Bad: Multiple discrimination#Other	1.050
	(0.080)
Discrimination#Gender identity	
Bad: SGM discrimination#Trans woman	0.970
	(0.085)
Bad: SGM discrimination#Trans man	0.877
	(0.072)
Bad: SGM discrimination#Non-binary	1.028
	(0.094)
Bad: SGM discrimination#Genderqueer/-fluid/a-/polygender	0.894
	(0.081)
Bad: SGM discrimination#Other	0.622***
	(0.079)
Bad: Multiple discrimination#Trans woman	1.046
	(0.108)
Bad: Multiple discrimination#Trans man	0.927
	(0.078)
Bad: Multiple discrimination#Non-binary	1.211***
	(0.084)
Bad: Multiple discrimination#Genderqueer/-fluid/a-/polygender	1.032
	(0.062)

Bad: Multiple discrimination#Other	0.842*
	(0.088)
Bad: Age	
Bad: 18-24	0.972
	(0.035)
Bad: 25-29	0.947
	(0.045)
Bad: 30-34	1.038
	(0.027)
Bad: 35-39	0.978
	(0.027)
Bad: 40-44	0.867***
	(0.025)
Bad: 45-49	0.761***
	(0.025)
Bad: 50-54	0.540***
	(0.041)
Bad: 55-59	0.527***
	(0.022)
Bad: 60-64	0.489***
	(0.027)
Bad: 65+	0.421***
	(0.025)
Bad: Education	
Bad: Primary education	1.361**
	(0.214)
Bad: Lower secondary education	1.519***
	(0.226)
Bad: Upper secondary education	1.963***
	(0.289)
Bad: Post-secondary education	2.071***
	(0.313)
Bad: Bachelor or equivalent	2.496***
	(0.373)
Bad: Master or equivalent	3.028***
	(0.459)
Bad: Doctoral or equivalent	2.584***
	(0.466)
Bad: Finances	
Bad: Difficult	1.713***
	(0.089)
Bad: Some difficulty	3.011***
	(0.144)
Bad: Fairly easily	4.704***
	(0.233)
Bad: Easily	6.425***
	(0.365)
Bad: Very easily	6.548***
	(0.479)
Bad: Country	
Bad: Belgium	0.705***
	(0.087)
Bad: Bulgaria	0.953
	(0.154)
Bad: Croatia	0.843
	(0.164)
Bad: Cyprus	0.907

	(0.243)
Bad: Czech Republic	0.914*
	(0.048)
Bad: Denmark	0.375***
	(0.040)
Bad: Estonia	0.392***
	(0.050)
Bad: Finland	0.461***
	(0.037)
Bad: France	0.626***
	(0.045)
Bad: Germany	0.541***
	(0.035)
Bad: Greece	3.231***
	(0.522)
Bad: Hungary	0.709***
	(0.070)
Bad: Ireland	0.484***
	(0.053)
Bad: Italy	1.551***
	(0.151)
Bad: Latvia	0.536***
	(0.093)
Bad: Lithuania	0.515***
	(0.068)
Bad: Luxembourg	0.713***
	(0.079)
Bad: Malta	1.608
	(0.499)
Bad: Netherlands	0.589***
	(0.059)
Bad: Poland	0.471***
	(0.021)
Bad: Portugal	0.989
	(0.118)
Bad: Romania	1.043
	(0.125)
Bad: Slovakia	0.847
	(0.107)
Bad: Slovenia	0.623***
	(0.054)
Bad: Spain	1.324***
	(0.101)
Bad: Sweden	0.252***
	(0.022)
Bad: United Kingdom	0.342***
	(0.022)
Bad :Intercept	7.553***
	(1.219)
Fair: Discrimination	
Fair: SGM discrimination	0.739***
	(0.024)
Fair: Multiple discrimination	0.576***
	(0.019)
Fair: Sexuality	
Fair: Gay	1.321***
	(0.031)
Fair: Bisexual	0.809***
	(0.017)

Fair: Other	0.679***
	(0.036)
Fair: Gender identity	
Fair: Trans woman	0.601***
	(0.038)
Fair: Trans man	0.521***
	(0.031)
Fair: Non-binary	0.426***
	(0.021)
Fair: Genderqueer/-fluid/a-/polygender	0.519***
	(0.023)
Fair: Other	0.790***
	(0.061)
Discrimination#Sexuality	
Fair: SGM discrimination#Gay	1.057
	(0.037)
Fair: SGM discrimination#Bisexual	1.125***
	(0.044)
Fair: SGM discrimination#Other	1.297***
	(0.116)
Fair: Multiple discrimination#Gay	1.033
	(0.040)
Fair: Multiple discrimination#Bisexual	1.012
	(0.038)
Fair: Multiple discrimination#Other	1.050
	(0.080)
Discrimination#Gender identity	
Fair: SGM discrimination#Trans woman	0.970
	(0.085)
Fair: SGM discrimination#Trans man	0.877
	(0.072)
Fair: SGM discrimination#Non-binary	1.028
	(0.094)
Fair: SGM discrimination#Genderqueer/-fluid/a-/polygender	0.894
	(0.081)
Fair: SGM discrimination#Other	0.622***
	(0.079)
Fair: Multiple discrimination#Trans woman	1.046
	(0.108)
Fair: Multiple discrimination#Trans man	0.927
	(0.078)
Fair: Multiple discrimination#Non-binary	1.211***
	(0.084)
Fair: Multiple discrimination#Genderqueer/-fluid/a-/polygender	1.032
	(0.062)
Fair: Multiple discrimination#Other	0.842*
	(0.088)
Fair: Age	
Fair: 18-24	0.963*
	(0.021)
Fair: 25-29	1.032
	(0.029)
Fair: 30-34	1.038

	(0.027)
Fair: 35-39	0.978
	(0.027)
Fair: 40-44	0.867***
	(0.025)
Fair: 45-49	0.761***
	(0.025)
Fair: 50-54	0.609***
	(0.026)
Fair: 55-59	0.527***
	(0.022)
Fair: 60-64	0.489***
	(0.027)
Fair: 65+	0.421***
	(0.025)
Fair: Education	
Fair: Primary education	1.372***
	(0.138)
Fair: Lower secondary education	1.490***
	(0.144)
Fair: Upper secondary education	1.836***
	(0.176)
Fair: Post-secondary education	1.971***
	(0.193)
Fair: Bachelor or equivalent	2.443***
	(0.237)
Fair: Master or equivalent	3.079***
	(0.301)
Fair: Doctoral or equivalent	3.116***
	(0.339)
Fair: Finances	
Fair: Difficult	1.452***
	(0.051)
Fair: Some difficulty	2.008***
	(0.063)
Fair: Fairly easily	3.038***
	(0.096)
Fair: Easily	4.456***
	(0.150)
Fair: Very easily	5.593***
	(0.226)
Fair: Country	
Fair: Belgium	0.730***
	(0.051)
Fair: Bulgaria	1.005
	(0.082)
Fair: Croatia	0.863
	(0.083)
Fair: Cyprus	1.334**
	(0.191)
Fair: Czech Republic	0.914*
	(0.048)
Fair: Denmark	0.508***
	(0.035)
Fair: Estonia	0.505***
	(0.041)
Fair: Finland	0.385***
	(0.021)

Fair: France	0.800***
	(0.040)
Fair: Germany	0.651***
	(0.031)
Fair: Greece	1.710***
	(0.112)
Fair: Hungary	0.548***
	(0.032)
Fair: Ireland	0.527***
	(0.035)
Fair: Italy	0.863***
	(0.045)
Fair: Latvia	0.314***
	(0.029)
Fair: Lithuania	0.508***
	(0.039)
Fair: Luxembourg	0.713***
	(0.079)
Fair: Malta	0.743***
	(0.080)
Fair: Netherlands	0.495***
	(0.029)
Fair: Poland	0.471***
	(0.021)
Fair: Portugal	0.666***
	(0.040)
Fair: Romania	0.719***
	(0.045)
Fair: Slovakia	0.781***
	(0.052)
Fair: Slovenia	0.623***
	(0.054)
Fair: Spain	1.064
	(0.052)
Fair: Sweden	0.361***
	(0.023)
Fair: United Kingdom	0.382***
	(0.018)
Fair: Intercept	1.417***
	(0.156)
Good: Discrimination	
Good: SGM discrimination	0.800***
	(0.025)
Good: Multiple discrimination	0.636***
	(0.02)
Good: Sexuality	
Good: Gay	1.146***
	(0.024)
Good: Bisexual	0.809***
	(0.017)
Good: Other	0.679***
	(0.036)
Good: Gender identity	
Good: Trans woman	0.601***
	(0.038)
Good: Trans man	0.521***
	(0.031)
Good: Non-binary	0.426***

	(0.021)
Good: Genderqueer/-fluid/a-/polygender	0.610***
	(0.029)
Good: Other	0.971
	(0.076)
Discrimination#Sexuality	
Good: SGM discrimination#Gay	1.057
	(0.037)
Good: SGM discrimination#Bisexual	1.125***
	(0.044)
Good: SGM discrimination#Other	1.297***
	(0.116)
Good: Multiple discrimination#Gay	1.033
	(0.040)
Good: Multiple discrimination#Bisexual	1.012
	(0.038)
Good: Multiple discrimination#Other	1.050
	(0.080)
Discrimination#Gender identity	
Good: SGM discrimination#Trans woman	0.970
	(0.085)
Good: SGM discrimination#Trans man	0.877
	(0.072)
Good: SGM discrimination#Non-binary	1.028
	(0.094)
Good: SGM discrimination#Genderqueer/-fluid/a-/polygender	0.894
	(0.081)
Good: SGM discrimination#Other	0.622***
	(0.079)
Good: Multiple discrimination#Trans woman	1.046
	(0.108)
Good: Multiple discrimination#Trans man	0.927
	(0.078)
Good: Multiple discrimination#Non-binary	1.211***
	(0.084)
Good: Multiple discrimination#Genderqueer/-fluid/a-/polygender	1.032
	(0.062)
Good: Multiple discrimination#Other	0.842*
	(0.088)
Good: Age	
Good: 18-24	1.006
	(0.022)
Good: 25-29	1.065**
	(0.028)
Good: 30-34	1.038
	(0.027)
Good: 35-39	0.978
	(0.027)
Good: 40-44	0.867***
	(0.025)
Good: 45-49	0.761***
	(0.025)
Good: 50-54	0.676***
	(0.027)

Good: 55-59	0.527***
	(0.022)
Good: 60-64	0.489***
	(0.027)
Good: 65+	0.421***
	(0.025)
Good: Education	
Good: Primary education	1.006
	(0.122)
Good: Lower secondary education	1.117
	(0.131)
Good: Upper secondary education	1.218*
	(0.141)
Good: Post-secondary education	1.251*
	(0.147)
Good: Bachelor or equivalent	1.482***
	(0.173)
Good: Master or equivalent	1.799***
	(0.210)
Good: Doctoral or equivalent	2.007***
	(0.242)
Good: Finances	
Good: Difficult	1.048
	(0.046)
Good: Some difficulty	1.323***
	(0.052)
Good: Fairly easily	1.823***
	(0.071)
Good: Easily	2.657***
	(0.104)
Good: Very easily	4.220***
	(0.173)
Good: Country	
Good: Belgium	0.611***
	(0.036)
Good: Bulgaria	1.072
	(0.068)
Good: Croatia	1.132
	(0.086)
Good: Cyprus	1.597***
	(0.150)
Good: Czech Republic	0.914*
	(0.048)
Good: Denmark	0.586***
	(0.037)
Good: Estonia	0.420***
	(0.037)
Good: Finland	0.268***
	(0.016)
Good: France	0.684***
	(0.031)
Good: Germany	0.606***
	(0.027)
Good: Greece	1.523***
	(0.079)
Good: Hungary	0.384***
	(0.022)
Good: Ireland	0.615***

	(0.038)
Good: Italy	0.690***
	(0.032)
Good: Latvia	0.292***
	(0.033)
Good: Lithuania	0.352***
	(0.029)
Good: Luxembourg	0.713***
	(0.079)
Good: Malta	0.662***
	(0.059)
Good: Netherlands	0.442***
	(0.025)
Good: Poland	0.471***
	(0.021)
Good: Portugal	0.494***
	(0.027)
Good: Romania	0.684***
	(0.040)
Good: Slovakia	0.876**
	(0.050)
Good: Slovenia	0.623***
	(0.054)
Good: Spain	0.564***
	(0.025)
Good: Sweden	0.376***
	(0.024)
Good: United Kingdom	0.434***
	(0.021)
Good: Intercept	0.341***
	(0.044)
Observations	133848
Pseudo R^2	0.080

*Notes: Standard errors are in parentheses. *** p<.01, ** p<.05, * p<.1*

Table 11: Generalized ordinal logistic regression (GOLR) output for model 7.

Variables	(1) Health
Multiple discrimination	
Singular discrimination	0.829
	(0.097)
Double discrimination	0.648***
	(0.079)
Multiple discrimination (3)	0.455***
	(0.070)
Multiple discrimination (4)	0.289***
	(0.052)
Multiple discrimination (>4)	0.209***
	(0.050)
Sexuality	
Gay	1.366**
	(0.185)
Bisexual	0.904
	(0.110)
Other	0.638***
	(0.102)
Gender identity	
Trans woman	0.456***
	(0.083)
Trans man	0.464***
	(0.080)
Non-binary	0.530***
	(0.093)
Genderqueer/-fluid/a-/polygender	0.372***
	(0.054)
Other	0.326***
	(0.064)
Age	
18-24	1.304*
	(0.177)
25-29	1.197
	(0.211)
30-34	1.064
	(0.210)
35-39	0.917
	(0.196)
40-44	0.835
	(0.184)
45-49	0.835
	(0.211)
50-54	0.565**
	(0.136)
55-59	0.618*
	(0.175)
60-64	0.576
	(0.223)
65+	0.379***
	(0.138)
Education	
Primary education	2.871***
	(0.898)

Lower secondary education	3.346***
	(0.918)
Upper secondary education	5.247***
	(1.406)
Post-secondary education	5.465***
	(1.555)
Bachelor or equivalent	7.136***
	(2.013)
Master or equivalent	8.434***
	(2.516)
Doctoral or equivalent	6.420***
	(2.763)
Finances	
Difficult	2.593***
	(0.343)
Some difficulty	4.446***
	(0.543)
Fairly easily	10.171***
	(1.514)
Easily	9.738***
	(1.599)
Very easily	9.297***
	(2.068)
Country	
Belgium	0.479
	(0.331)
Bulgaria	0.243**
	(0.165)
Croatia	0.316
	(0.241)
Cyprus	0.196**
	(0.161)
Czech Republic	0.710
	(0.493)
Denmark	0.190***
	(0.120)
Estonia	0.316*
	(0.220)
Finland	0.296**
	(0.179)
France	0.259**
	(0.154)
Germany	0.424
	(0.25)
Greece	0.800
	(0.526)
Hungary	0.444
	(0.285)
Ireland	0.227**
	(0.145)
Italy	0.656
	(0.409)
Latvia	0.397
	(0.325)
Lithuania	0.596
	(0.458)
Luxembourg	123423.892
	(66615872.277)
Malta	0.882

	(1.018)
Netherlands	0.296*
	(0.186)
Poland	0.370*
	(0.221)
Portugal	0.346*
	(0.223)
Romania	1.011
	(0.740)
Slovakia	0.324*
	(0.211)
Slovenia	144103.517
	(69066802.452)
Spain	0.487
	(0.291)
Sweden	0.117***
	(0.070)
United Kingdom	0.162***
	(0.095)
Intercept	39.404***
	(25.775)
Bad: Multiple discrimination	
Bad: Singular discrimination	0.776***
	(0.029)
Bad: Double discrimination	0.652***
	(0.026)
Bad: Multiple discrimination (3)	0.483***
	(0.026)
Bad: Multiple discrimination (4)	0.378***
	(0.027)
Bad: Multiple discrimination (>4)	0.249***
	(0.025)
Bad: Sexuality	
Bad: Gay	1.562***
	(0.067)
Bad: Bisexual	0.843***
	(0.033)
Bad: Other	0.753***
	(0.045)
Bad: Gender identity	
Bad: Trans woman	0.601***
	(0.042)
Bad: Trans man	0.438***
	(0.026)
Bad: Non-binary	0.424***
	(0.024)
Bad: Genderqueer/-fluid/a-/polygender	0.453***
	(0.024)
Bad: Other	0.541***
	(0.046)
Bad: Age	
Bad: 18-24	0.905**
	(0.043)
Bad: 25-29	0.861**
	(0.052)
Bad: 30-34	0.960
	(0.067)

Bad: 35-39	0.868*
	(0.066)
Bad: 40-44	0.765***
	(0.062)
Bad: 45-49	0.632***
	(0.054)
Bad: 50-54	0.484***
	(0.041)
Bad: 55-59	0.413***
	(0.040)
Bad: 60-64	0.430***
	(0.057)
Bad: 65+	0.393***
	(0.054)
Bad: Education	
Bad: Primary education	1.319*
	(0.208)
Bad: Lower secondary education	1.512***
	(0.226)
Bad: Upper secondary education	1.988***
	(0.295)
Bad: Post-secondary education	2.120***
	(0.324)
Bad: Bachelor or equivalent	2.582***
	(0.391)
Bad: Master or equivalent	3.154***
	(0.487)
Bad: Doctoral or equivalent	2.710***
	(0.496)
Bad: Finances	
Bad: Difficult	1.691***
	(0.088)
Bad: Some difficulty	2.940***
	(0.142)
Bad: Fairly easily	4.561***
	(0.229)
Bad: Easily	6.184***
	(0.357)
Bad: Very easily	6.349***
	(0.468)
Bad: Country	
Bad: Belgium	0.787
	(0.135)
Bad: Bulgaria	1.017
	(0.204)
Bad: Croatia	0.932
	(0.214)
Bad: Cyprus	0.983
	(0.288)
Bad: Czech Republic	1.143
	(0.199)
Bad: Denmark	0.423***
	(0.068)
Bad: Estonia	0.431***
	(0.076)
Bad: Finland	0.507***
	(0.073)
Bad: France	0.688***

	(0.096)
Bad: Germany	0.606***
	(0.083)
Bad: Greece	3.484***
	(0.701)
Bad: Hungary	0.765*
	(0.119)
Bad: Ireland	0.539***
	(0.088)
Bad: Italy	1.699***
	(0.262)
Bad: Latvia	0.581**
	(0.123)
Bad: Lithuania	0.559***
	(0.100)
Bad: Luxembourg	0.584*
	(0.190)
Bad: Malta	1.722
	(0.573)
Bad: Netherlands	0.656***
	(0.103)
Bad: Poland	0.515***
	(0.071)
Bad: Portugal	1.072
	(0.182)
Bad: Romania	1.136
	(0.193)
Bad: Slovakia	0.929
	(0.162)
Bad: Slovenia	0.732
	(0.198)
Bad: Spain	1.410**
	(0.201)
Bad: Sweden	0.279***
	(0.042)
Bad: United Kingdom	0.373***
	(0.051)
Bad: Intercept	7.364***
	(1.502)
Fair: Multiple discrimination	
Fair: Singular discrimination	0.781***
	(0.014)
Fair: Double discrimination	0.666***
	(0.014)
Fair: Multiple discrimination (3)	0.530***
	(0.017)
Fair: Multiple discrimination (4)	0.399***
	(0.019)
Fair: Multiple discrimination (>4)	0.303***
	(0.024)
Fair: Sexuality	
Fair: Gay	1.330***
	(0.027)
Fair: Bisexual	0.821***
	(0.016)
Fair: Other	0.747***
	(0.029)
Fair: Gender identity	

Fair: Trans woman	0.578***
	(0.025)
Fair: Trans man	0.498***
	(0.019)
Fair:4. Non-binary	0.473***
	(0.017)
Fair:5. Genderqueer/-fluid/a-/polygender	0.521***
	(0.017)
Fair:6. Other	0.673***
	(0.037)
Fair: Age	
Fair: 18-24	0.969
	(0.024)
Fair: 25-29	1.039
	(0.032)
Fair: 30-34	1.071*
	(0.037)
Fair: 35-39	0.993
	(0.038)
Fair: 40-44	0.882***
	(0.035)
Fair: 45-49	0.753***
	(0.033)
Fair: 50-54	0.612***
	(0.027)
Fair: 55-59	0.536***
	(0.028)
Fair: 60-64	0.478***
	(0.033)
Fair: 65+	0.402***
	(0.029)
Fair: Education	
Fair: Primary education	1.362***
	(0.138)
Fair: Lower secondary education	1.477***
	(0.143)
Fair: Upper secondary education	1.810***
	(0.175)
Fair: Post-secondary education	1.937***
	(0.190)
Fair: Bachelor or equivalent	2.400***
	(0.234)
Fair: Master or equivalent	3.018***
	(0.297)
Fair: Doctoral or equivalent	3.061***
	(0.336)
Fair: Finances	
Fair: Difficult	1.446***
	(0.051)
Fair: Some difficulty	1.996***
	(0.063)
Fair: Fairly easily	3.013***
	(0.096)
Fair: Easily	4.416***
	(0.149)
Fair: Very easily	5.558***
	(0.225)
Fair: Country	

Fair: Belgium	0.718***
	(0.060)
Fair: Bulgaria	0.981
	(0.091)
Fair: Croatia	0.847
	(0.090)
Fair: Cyprus	1.327*
	(0.200)
Fair: Czech Republic	0.920
	(0.074)
Fair: Denmark	0.502***
	(0.041)
Fair: Estonia	0.5***
	(0.047)
Fair: Finland	0.374***
	(0.026)
Fair: France	0.790***
	(0.053)
Fair: Germany	0.638***
	(0.042)
Fair: Greece	1.683***
	(0.134)
Fair: Hungary	0.538***
	(0.040)
Fair: Ireland	0.523***
	(0.042)
Fair: Italy	0.844**
	(0.058)
Fair: Latvia	0.306***
	(0.031)
Fair: Lithuania	0.501***
	(0.045)
Fair: Luxembourg	0.790
	(0.135)
Fair: Malta	0.728***
	(0.085)
Fair: Netherlands	0.488***
	(0.036)
Fair: Poland	0.464***
	(0.031)
Fair: Portugal	0.651***
	(0.049)
Fair: Romania	0.711***
	(0.055)
Fair: Slovakia	0.773***
	(0.063)
Fair: Slovenia	0.609***
	(0.074)
Fair: Spain	1.042
	(0.070)
Fair: Sweden	0.354***
	(0.028)
Fair: United Kingdom	0.377***
	(0.025)
Fair: Intercept	1.445***
	(0.172)
Good: Multiple discrimination	
Good: Singular discrimination	0.846***
	(0.013)

Good: Double discrimination	0.718***
	(0.015)
Good: Multiple discrimination (3)	0.545***
	(0.021)
Good: Multiple discrimination (4)	0.432***
	(0.028)
Good: Multiple discrimination (>4)	0.401***
	(0.048)
Good: Sexuality	
Good: Gay	1.179***
	(0.02)
Good: Bisexual	0.848***
	(0.016)
Good: Other	0.690***
	(0.037)
Good: Gender identity	
Good: Trans woman	0.647***
	(0.037)
Good: Trans man	0.506***
	(0.027)
Good: Non-binary	0.472***
	(0.023)
Good: Genderqueer/-fluid/a-/polygender	0.627***
	(0.025)
Good: Other	0.859**
	(0.054)
Good: Age	
Good: 18-24	0.994
	(0.024)
Good: 25-29	1.049*
	(0.030)
Good: 30-34	1.013
	(0.031)
Good: 35-39	0.961
	(0.032)
Good: 40-44	0.850***
	(0.030)
Good: 45-49	0.762***
	(0.029)
Good: 50-54	0.667***
	(0.028)
Good: 55-59	0.527***
	(0.027)
Good: 60-64	0.501***
	(0.035)
Good: 65+	0.444***
	(0.034)
Good: Education	
Good: Primary education	1.008
	(0.122)
Good: Lower secondary education	1.121
	(0.131)
Good: Upper secondary education	1.223*
	(0.142)
Good: Post-secondary education	1.258*
	(0.148)
Good: Bachelor or equivalent	1.495***

	(0.175)
Good: Master or equivalent	1.819***
	(0.213)
Good: Doctoral or equivalent	2.026***
	(0.246)
Good: Finances	
Good: Difficult	1.048
	(0.046)
Good: Some difficulty	1.318***
	(0.052)
Good: Fairly easily	1.813***
	(0.070)
Good: Easily	2.640***
	(0.103)
Good: Very easily	4.190***
	(0.172)
Good: Country	
Good: Belgium	0.611***
	(0.038)
Good: Bulgaria	1.069
	(0.071)
Good: Croatia	1.129
	(0.088)
Good: Cyprus	1.607***
	(0.154)
Good: Czech Republic	0.901*
	(0.052)
Good: Denmark	0.586***
	(0.038)
Good: Estonia	0.421***
	(0.037)
Good: Finland	0.267***
	(0.017)
Good: France	0.683***
	(0.033)
Good: Germany	0.607***
	(0.029)
Good: Greece	1.520***
	(0.083)
Good: Hungary	0.385***
	(0.023)
Good: Ireland	0.616***
	(0.040)
Good: Italy	0.689***
	(0.034)
Good: Latvia	0.291***
	(0.033)
Good: Lithuania	0.352***
	(0.030)
Good: Luxembourg	0.688***
	(0.085)
Good: Malta	0.664***
	(0.060)
Good: Netherlands	0.440***
	(0.026)
Good: Poland	0.477***
	(0.023)
Good: Portugal	0.493***
	(0.028)

Good: Romania	0.685***
	(0.041)
Good: Slovakia	0.878**
	(0.053)
Good: Slovenia	0.629***
	(0.062)
Good: Spain	0.559***
	(0.027)
Good: Sweden	0.375***
	(0.025)
Good: United Kingdom	0.433***
	(0.022)
Good: Intercept	0.334***
	(0.043)
Observations	133848
Pseudo R^2	0.081

*Notes: Standard errors are in parentheses. *** p<.01, ** p<.05, * p<.1*