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# Integrative understanding of bias-motivated violence targeting underrepresented populations

Diego Arias Díaz-Faes



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**Integrative understanding of bias-motivated violence  
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# **Integrative understanding of bias-motivated violence targeting underrepresented populations**

*A dissertation submitted in fulfillment of the requirements for the Doctor of  
Philosophy degree at the University of Barcelona*

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This thesis compiles three studies published in peer-reviewed journals and another one under review, meeting the requirements established by the University of Barcelona's Doctoral Committee under the Brain, Cognition, and Behavior PhD program at the Faculty of Psychology. During this stage of my career, I have been part of the Department of Clinical Psychology and Psychobiology and the Institute of Neurosciences (UBNeuro) and worked as a research technician, project manager and associated lecturer. I was a short-term visiting scholar from April to June 2022, at the John Jay College of Criminal Justice–City University of New York (JJC-CUNY) in the lab lead by Prof. Cathy Spatz Widom. UBNeuro funded my research stay through the call Ajuts Neuroestades 2021-2022. I also received the competitive Trainee Award: Building a Multidisciplinary Pipeline of Researchers in Child Abuse and Neglect, a Research Education Program (R25) funded by the National Institute of Child Health and Human Development (NICHD), United States in January 2023.

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This dissertation advocates for the precision in language and emphasizes inclusivity and respect for the population under analysis (American Psychological Association, 2020).

American Psychological Association (2020). Bias-free language guidelines. *In Publication manual of the American Psychological Association*, 7th ed. (pp. 132–148). <https://doi.org/10.1037.0000165-000>

### Commonly used acronyms

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ACEs	Adverse Childhood Experiences.
ACE-IQ	Adverse Childhood Experiences International Questionnaire.
ID	Intellectual disabilities.
JVQ	Juvenile Victimization Questionnaire.
LCA	Latent class analysis.
LGBTQI+	Lesbian, gay, bisexual, transgender, queer, questioning, and other emerging sexual plus.
SES	Socioeconomic status.
SGM	Sexual and gender minority.
SGMs	Sexual and gender minorities.
SM	Sexual minority.
SMs	Sexual minorities.
U.S.	United States.
WEIRD	Western, Educated, Industrialized, Rich, and Democratic.

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## Abstract

Bias-motivated violence encompasses various types of targeted violence against underrepresented groups and is considered more potentially harmful than non-based bias-motivated violence. Research in this area has flourished during the last two decades, although some gaps and inconsistencies limit current knowledge.

This dissertation aims to synthesize and bridge existing literature on bias-motivated violence by focusing on ethnic and racial minorities. It also provides empirical insights on bias-motivated violence regarding two other underrepresented groups: individuals with intellectual disabilities and sexual minorities. The dissertation consists of four studies, one integrative narrative review, and three research articles using self-reported primary data.

Study 1 offers a critical reappraisal of theoretical, methodological, and empirical research from a systemic perspective, bridging existing knowledge by drawing from 134 academic publications across multiple disciplines. It identifies this type of violence as a distinct phenomenon, distinguished by its roots in prejudice, identity, and attitudes, mainly influenced by individual, psychosocial, and ecological factors. Psychological consequences for the victims are heterogeneous and distinctive.

Study 2 investigates adverse experiences and their connection to suicide attempts among 924 undergraduate students ( $M = 20.10$  years old,  $SD = 3.34$ , 71.6% women). The study compares the participants who self-identify as belonging to a sexual minority ( $n = 231$ ) with their heterosexual counterparts using a 1:3 ratio propensity. Sexual minority individuals reported higher adversity rates, higher ACE scores (2.70 vs. 1.85), and a threefold increase in suicide attempt risk. Logistic regression reveals a relationship between sexual minority status and some adverse experiences with suicide attempts.

Study 3 and Study 4 are from a study of 260 adults with a diagnosis of intellectual disability (59.2% men) aged 20 to 71 years ( $M = 41.7$ ;  $SD = 12.0$ ). Study 3 examines the number of different types of victimization experiences and polyvictimization status, comparing bias and non-bias attack victims. The results show that bias victims experienced a wider variety of other types of victimization than non-bias victims ( $M = 7.74$  vs. 4.96) and

were four times more likely to be poly-victims. Most victims encountered multiple bias incidents and over a quarter sustained injuries.

Study 4 seeks to analyze whether there are differences among victims with intellectual disabilities regarding the types of victimization experienced. For this purpose, it uses latent class analysis to identify three unobserved victimization clusters: High victimization (10.4%), medium victimization but low sexual victimization (37.3%), and low victimization (52.3%). The results emphasize sexual and physical victimization in the high-victimization class, physical victimization in the medium-victimization class, and varying degrees of assault and bias attack experiences in the three classes. Differences in the sociodemographic characteristics of the class members were identified. While the latent class analysis and poly-victimization estimation method showed substantial agreement, they also revealed significant differences in identifying the most victimized individuals.

This dissertation highlights the multifaceted nature of bias-motivated violence, its relationship with other forms of violence, its overlap with other types of victimization, and its negative consequences. The studies also advocate for critical and epistemological thinking, aiming to build bridges between different levels of analysis and challenge narrow or groundless assumptions about underrepresented groups.

## Resum

La violència esbiaixada engloba diverses formes de violència dirigida contra grups infrarepresentats i es considera més perjudicial que la violència no esbiaixada. La recerca en aquest àmbit ha prosperat durant les dues últimes dècades, tot hi que encara presenta mancances i inconsistències que limiten l'abast del coneixement actual.

Aquesta tesi sintetitza i connecta la literatura existent sobre la violència esbiaixada, centrant-se en les minories ètniques i racials, i també ofereix aportacions empíriques sobre aquesta forma de violència en relació amb dos altres grups infrarepresentats: les persones amb discapacitats intel·lectuals i les minories sexuals. La tesi es compon de quatre articles, una revisió narrativa integradora i tres articles de recerca que utilitzen dades primàries autoinformades.

L'Article 1 ofereix una avaluació crítica de la recerca teòrica, metodològica i empírica des d'una perspectiva sistèmica, establint connexions amb el coneixement existent a partir de 134 publicacions acadèmiques de diverses disciplines. La revisió identifica aquest forma de violència com un fenomen distintiu, diferenciat per les seves arrels en el prejudici, la identitat i les actituds; el qual està principalment influïdes per factors individuals, psicosocials i ecològics. Les conseqüències psicològiques per a les víctimes són heterogènies i distintives.

L'Article 2 investiga les experiències adverses i la seva relació amb els intents de suïcidi entre 924 estudiants universitaris ( $M = 20,10$  anys,  $SD = 3,34$ , 71,6% dones). L'article compara els participants que s'autoidentifiquen com a minoria sexual ( $n = 231$ ) amb els seus iguals heterosexuels mitjançant una puntuació de propensió en una ràtio d'1:3. Les persones pertanyents a minories sexuals van reportar de taxes més altes d'adversitat, d'una major puntuació ACE (2,70 vs. 1,85) i un risc de suïcidi tres vegades major. Les anàlisis de regressió logística revelen l'existència d'una relació entre la pertinença al grup de minoria sexual i algunes de les experiències adverses amb els intents de suïcidi.

Els Articles 3 i 4 s'han dut a terme amb una mostra de 260 adults amb un diagnòstic de discapacitat intel·lectual (59,2% homes), d'edats compreses entre els 20 i els 71 anys ( $M = 41,7$ ;  $SD = 12,0$ ). L'Article 3 examina els diferents tipus d'experiències de victimització i

la polivictimització, comparant les víctimes d'agressions per discriminació amb els participants que no han experimentat d'aquest tipus de victimització. Els resultats mostren que les víctimes d'agressions per discriminació van experimentar una major varietat d'altres tipus de victimització en comparació als seus iguals que no han estat víctimes d'agressions per discriminació ( $M = 7,74$  vs.  $4,96$ ), i també que tenen quatre vegades més probabilitats de ser polivíctimes. La majoria de les víctimes van experimentar diversos incidents d'aquesta mena i com a conseqüència, més d'un quart en van resultar ferits.

L'article 4 cerca analitzar si hi ha diferències entre les víctimes amb discapacitat intel·lectual pel que fa als tipus de victimitzacions que han experimentat. Per tal d'esbrinar-ho s'utilitza l'anàlisi de classes latents per identificar grups de victimització no observats, trobant-ne tres de diferenciats: victimització elevada (10,4%), victimització moderada, però baixa en la victimització sexual (37,3%), i victimització baixa (52,3%). Als resultats en destaquen la victimització sexual i física en la classe d'elevada victimització, la victimització física en la classe de moderada victimització, i diferents graus d'agressió i agressió per discriminació en les tres classes. També es van observar diferències sociodemogràfiques entre els membres de les classes. Tot i que l'anàlisi de classes latents i el mètode d'estimació de la polivictimització mostren una concordança substancial, també van revelar diferències significatives en la identificació de les persones més victimitzades.

Aquesta tesi posa en relleu la naturalesa multifacètica de la violència esbiaixada, la seva relació amb altres formes de violència, la seva superposició amb altres tipus de victimització i les seves conseqüències negatives. Els articles presentats també advoquen pel pensament crític i epistemològic, amb l'objectiu de construir ponts entre diferents nivells d'anàlisi i qüestionar les suposicions estretes o infundades sobre els grups poc representats.

# 1. Introduction

## 1.1 Adverse Childhood Experiences

Healthy development has consistently been linked to childhood experiences, including maltreatment, victimization, and trauma in early life (Font & Kennedy, 2022; Gilbert et al., 2009). The contemporary body of research conducted in this field is commonly known as Adverse Childhood Experiences (ACEs) and arose from the seminal research on the association between childhood abuse, neglect, household dysfunction, and long-term health consequences conducted by the Disease Control and Prevention-Kaiser Permanente in two waves of data from 1995 to 1997 (Felitti et al., 1998). This study comprised 10 ACEs categories in three domains: Child abuse (physical, emotional, and sexual abuse), Neglect (physical and emotional neglect), and Household dysfunction (mental illness in the household, substance abuse in the household, divorce/separation, mother treated violently, and parental incarceration). Felitti et al. (1998) devised the concept of ACEs scores, which quantified the extent of childhood adversity experienced by sum a participant's reports of such experiences. ACEs scores have exhibited a gradual and independent dose-dependent association with the development of negative outcomes (Bellis et al., 2019).

Over the last two decades, ACEs have become a framework widely used retrospectively and prospectively in epidemiological studies and adopted as the standard for many health institutions and research efforts., involving a wide array of interested parties. The original 10 ACEs categories come from 28 survey items, selected and adapted from various validated measures of sexual history, violence, and traumatic childhood experiences (for a breakdown, see Ports et al., 2020). It is crucial to note that, despite their mainstream adoption, no theoretical or empirical evidence has been published to elucidate the rationale behind the selection of the initial 10 ACEs included in the data collection of the original ACEs Study. Although there is a consensus that all 10 ACEs can have detrimental effects, narrowly defining ACEs as merely maltreatment or household dysfunction can lead to overlooking some relevant exposures (Karatekin & Hill, 2019).

For that reason, researchers have used data-driven techniques to extend the ACEs framework by incorporating other events that undermine development and functioning. They have proposed an expanded list of ACEs or modified questionnaires (Bethell et al., 2017;



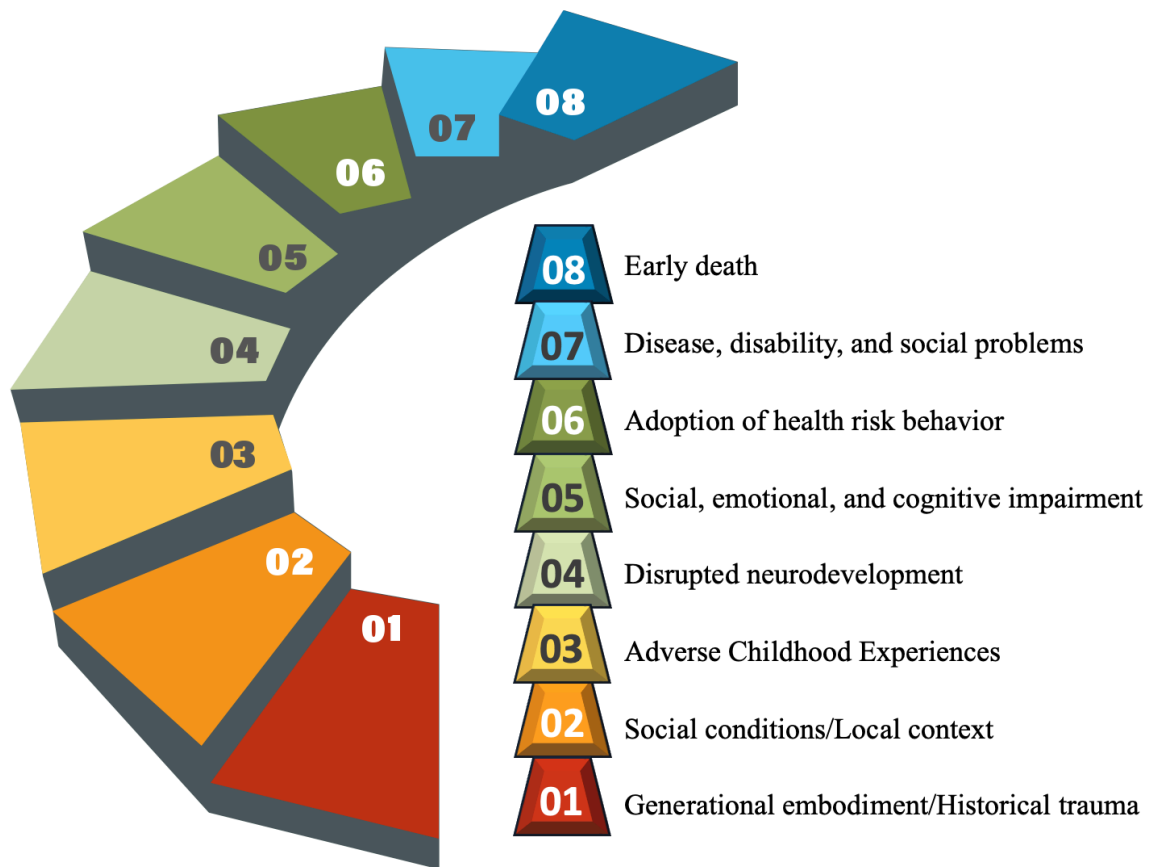
Finkelhor et al., 2013; Gette et al., 2022; Karatekin & Hill, 2019). Subsequently, the types of ACEs covered within the three original domains (child abuse, neglect, and household challenge) have been revised, and additional domains such as peer victimization (bullying, cyberbullying, peer rejection, and dating violence), community violence (i.e., witnessing someone being beaten up, witnessing someone being stabbed or shot, witnessing someone being threatened with a knife or gun), or collective violence (i.e., forced to go and live in another place due to deliberate destruction of your home, being beaten up by soldiers/police/militia/gangs, member or friend killed or beaten up by soldiers/police/militia/gangs) have been included, expanding the existing framework to encompass different types of ACEs. This has led to the development of the Adverse Childhood Experiences International Questionnaire (ACE-IQ, WHO, 2012), which aims to integrate ACE research into health and behavioral studies worldwide, including low- and middle-income countries that had previously been overlooked.

Thus, the ACEs framework encompasses violence (Hamby, 2017), understood as intentional, unwanted, nonessential, and harmful behavior, as well as other stressful or traumatic events. This 'catch-all' construct has proved helpful, although further refinement is still required.

The roots of adult health difficulties and diseases are often traced back to developmental and biological disturbances in early life (Oral et al., 2019). ACEs can significantly affect health in two ways: by causing gradual damage that accumulates over time or by exerting a profound influence during critical stages of development (Shonkoff et al., 2009). The consequences of ACEs in the early stages are far-reaching, leading to numerous psychosocial challenges during both childhood and adolescence. These challenges manifest in various aspects of life, including decreased school engagement and performance, increased likelihood of substance abuse and other risky behaviors, the development of internalizing problems such as posttraumatic symptoms, depression, and suicidality, as well as externalizing problems like disruptive behavior and aggression, which may arise, accompanied by lower self-esteem and diminished overall life satisfaction (Baldwin et al., 2023; Bellis et al., 2019; Brindle et al., 2022; McKay et al., 2021; Nelson et al., 2020; Sahle et al., 2022; Tan & Mao, 2023). Consequences are not limited to neurodevelopmental effects since they also extend to social dimensions. Household adversities can influence how

individuals interact with their peers, potentially leading to the development or exacerbation of negative behaviors, such as binge drinking, illicit drug use, or gang involvement (Trinidad, 2021).

While encountering a certain level of adversity is a part of human development, excessive and prolonged exposure to adversity can lead to a detrimental stress response known as toxic stress (Ports et al., 2020). Toxic stress can disrupt the development of brain architecture and other organ systems, having negative effects on physiological, cognitive, behavioral, and psychological functions, increasing the risk of health and social problems, morbidity, and premature death (Ports et al., 2020). Figure 1 depicts the mechanisms involved in influencing health and well-being throughout the lifespan.



**Figure 1.** The mechanisms through which ACEs impact health and well-being. Based on Felitti et al. (1998) and Centers for Disease Control and Prevention (CDC).

## 1.2. Prejudice and discrimination

Social psychological research has revealed that when it comes to perceiving others, race, ethnicity, gender, and age take center stage as the primary categories for organizing social information, often serving as the very first details we notice (Schneider, 2004). Categorizing people into social groups, that is, social categorization simplifies societal and world views. Through this categorization, we tend to assign qualities to social groups and the individuals identified within them. As a result, we often make assumptions based on this quick assessment, which influences our beliefs, actions, and expectations of others. Stereotyping, prejudice, and discrimination play significant roles in these category-based processes. They are partially automatic but also individually controllable and responsive to social structures (Fiske, 1998; 2000). Stereotypes and prejudice are related but distinct forms of social bias that can lead to discriminatory behavioral intentions and actions driven by ingroup favoritism or outgroup derogation (Dovidio et al., 2018).

Stereotypes, a term coined by Lippmann (1922), are organized beliefs and opinions regarding the characteristics, attributes, and behaviors exhibited by typical individuals within a social group, involving the formation of associations and attributions of specific characteristics (Cohrs & Duckitt, 2011). Some authors have argued that stereotypes are not essentially different from other generalizations (McCauley et al., 1980). Stereotypes are not inherently incorrect, illogical, or inflexible. Stereotypes may be less easily validated compared to generalizations about impersonal categories. Stereotypes are ingrained within the fabric of culture; they typically stem from shared beliefs arising from family, peers, mass media, and literature. They can either be accurate or inaccurate.

Prejudice refers to generalized feelings or attitudes held towards a particular social group and its members, which can be either negative or positive evaluations (Dovidio et al., 2018). Prejudice is linked to, yet can be differentiated from, stereotypes since it involves the affective or emotional response that individuals experience when thinking about or interacting with members of other groups. Prejudice has its origins in individual differences in personality and ideological preferences, as well as socialization experiences involving exposure to various social norms. The dynamics between different social groups also play a role in shaping prejudice. Prejudice contributes to the establishment or perpetuation of

hierarchical relationships among groups. While prejudice has commonly been examined as a phenomenon that exists within groups or societies, it can also be understood as an individual-level phenomenon. This means that individuals may differ in their tendency to adopt prejudiced and ethnocentric attitudes (Duckitt, 2001). It is important to note that holding stereotypical beliefs does not necessarily imply that an individual is prejudiced (Dovidio et al., 2018). The evolution of the understanding of prejudice over time stems from race psychology, race prejudice, psychodynamic processes, prejudiced personality, sociocultural perspective, and cognitive approach (for a historical account, see Duckitt, 1992, 2010). Critical perspectives of prejudice have attempted to go beyond the dualism between the individual and the social often relying on social constructionist epistemology (Tuffin, 2017).

Discrimination involves treating people differently based on intergroup biases, resulting in actions or behaviors directed specifically toward a particular group and its members. Discrimination can be understood as the behavioral expression of prejudice (Jones, 1997). Discrimination and prejudice are cultural components of White privilege that confer favored status based on one's group membership, resulting in the unfair treatment of others due to their race, ethnicity, sexual or gender identity, social class, disability, or a combination of these, among others (Kite & Whitley, 2023). In a broad sense, we can differentiate between implicit prejudices, referring to reactions towards groups or individuals that occur automatically outside conscious awareness, and explicit prejudices, representing attitudes that people are aware of and can control (Kite & Whitley, 2023). Prejudice possesses two primary characteristics: omnipresence and complexity (Scheepers et al., 2013). It is omnipresent, meaning it exists at all times, across cultures, and targets various societal groups. Prejudice is complex because it involves explanatory factors at different levels, including intrapersonal, interpersonal, intergroup, and cultural factors.

Kite and Whitley (2023) propose four levels of discrimination: interpersonal, organizational, institutional, and cultural. Interpersonal discrimination occurs when individuals unjustly treat others based on their group membership. It manifests in various behaviors, ranging from indirect or subtle actions (e.g., aversive racism, as discussed by Pearson et al., 2009) to more severe acts such as bias-motivated violence or hate crimes. Organizational discrimination refers to differential treatment resulting from rules, policies,

or practices within an organization or government agency based on group membership. Institutional discrimination involves differential outcomes experienced by certain group members due to social norms and policies embedded in educational, justice, health systems, community or religious organizations, or within families. Cultural discrimination is perpetuated by the dominant group and involves the pervasive imposition of their values on society, rewarding behaviors that align with their societal views and perpetuating inequality within social structures.

The main focus of this dissertation is interpersonal discrimination, particularly the framing of bias-motivated violence as an expression of prejudice. The relationship between stereotyping, prejudice, and discrimination is intricate, and it can be challenging to determine when stereotypes lead to prejudice or subsequent acts of discrimination. However, situational factors also influence discrimination or bias-based behaviors. Moreover, it must recognize the complexity of intergroup relations, and integrating various perspectives can aid in gaining a better comprehension of these dynamics.

As a phenomenon rooted in psychological processes and intergroup relations, this does not contradict a social psychological analysis that focuses on individual perceptions, evaluations, and actions or addresses the biological factors that underlie group formation. These dimensions constitute a theoretical integration that we should strive to achieve, despite the challenges. For instance, research in social neuroscience supports the notion that social identification involves a flexible shift in self-perception, transitioning from an individualistic perspective to a collective one (Amodio, 2014; Cikara & Van Bavel, 2014). This connects the study of various aspects of prejudice to neurocognitive models of learning and memory (Amodio & Cikara, 2021). This shift can override the influence of visually prominent social categories on perception, evaluation, and various cognitive processes. An implication of this finding is that numerous social categories are inadequate indicators of group membership, as they are connected to a multitude of other variables. This viewpoint remains compatible with social psychology studies that recognize individuals as members of a group within a cohesive framework of group dynamics (Brown, 2010).

### 1.3. Stigma, stress, and health

#### 1.3.1. Stigma

Ever since Goffman's essay (1963) made its mark, research in this field has been remarkably fruitful, leading to numerous advancements and consistent evidence highlighting the harmful consequences of stigma. Stigma occurs when institutions and individuals label, stereotype, and ostracize groups of people, thereby preventing them from accessing social, economic, and political power (Link & Phelan, 2001).

Theoretically, contemporary research on the topic has relied on the socioecological framework to analyze how cultural norms and institutions influence various forms of stigma at different levels from wide a perspective: individual level, interpersonal level, and structural level (Cook et al., 2013; Hatzenbuehler & Pachankis, 2016; Jones, 2000). Individual forms of stigma refer to cognitive (e.g., vigilance), affective (e.g., intergroup anxiety), and behavioral responses to stigma (e.g., health risk behaviors). Interpersonal forms of stigma allude to prejudice and discrimination in the interaction processes between stigmatized and non-stigmatized individuals, including both hate crimes and more subtle forms such as microaggressions (e.g., a brief interaction that conveys negative attitudes and viewpoints toward a particular persona and its group). Structural forms of stigma refer to the social, political, legislative, and cultural conditions that restrict opportunities, resources, and well-being for stigmatized individuals (e.g., bans on same-sex marriage or adoption).

From an applied perspective, stigma is a complex and dynamic social phenomenon that defies singular definition or static characterization. Its elusive nature has led to diverse interpretations in literature, with scholars employing similar or interconnected concepts in their attempts to grasp its essence. Table 1 presents a summary of the main elements in this area of research.

**Table 1.** Foundational elements of stigma research.

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<b>Stigma characteristics</b>	
<i>Physical</i>	Regarding the body, such as physical disabilities.

---

<i>Character</i>	Reflecting moral weakness (e.g., like criminal behavior or mental illness).
<i>Status</i>	One's societal status, often linked to inherited traits like race or ethnicity.
<i>Discredited</i>	Readily apparent or previously established; visible or indisputable "marks" (e.g., body size or apparent disabilities).
<i>Discreditable</i>	Unseen or easily hidden; concealed or imperceptible "marks" (e.g., traumatic life experiences or physical illnesses).
<i>Changeable</i>	Prone to direct alteration by individuals or collectives (e.g., substance use or obesity).
<i>Fixed</i>	Can be modified solely by reshaping the societal significance of the "mark" (e.g., a person with a criminal record).

**Target variants**

<b><i>Experimental</i></b>	
<i>Perceived</i>	Belief that most individuals will devalue, discriminate the stigmatized people.
<i>Endorsed</i>	Acknowledgment and support of stereotypes, prejudice, and discrimination.
<i>Anticipated</i>	Expected the experience prejudice and discrimination among the stigmatized.
<i>Received</i>	Openly displaying rejection and undervaluing, resulting in negative interactions.
<i>Enacted</i>	Engaging in disparate treatment towards those who stigmatize others.
<b><i>Action-oriented</i></b>	
<i>Self-stigma</i>	The internal acceptance of stereotypes and prejudice.
<i>Courtesy stigma</i>	Stereotyping, prejudice, and discrimination based on association with marked groups.

<i>Public stigma</i>	Stereotyping, prejudice, and discrimination supported by the general population.
<i>Provider-based stigma</i>	Prejudice and discrimination expressed or practiced, whether consciously or unconsciously, by professional groups tasked with aiding stigmatized communities.
<i>Structural stigma</i>	Prejudice and discrimination perpetuated through institutionalized stigma, including policies, laws, and constitutional practices.

*Note.* Adapted from Pescosolido & Martin (2015).

### ***1.3.2. Social stress, underrepresented groups, and health consequences***

Research on stress and its consequences has made relevant contributions across multiple disciplines over the decades. Stress is a normal reaction to everyday events or situations but becomes unhealthy when its burden surpasses an individual's ability to cope, potentially leading to mental or physical health issues (Pearlin, 1999). Selye's (1936) article established what would eventually be recognized as the general adaptation syndrome. This concept refers to any factor that induces stress and poses a threat to life, necessitating adaptive responses for survival (Selye, 1950). Therefore, external factors that present challenges or impede progress are referred to as stressors. Stress usually emphasizes a particular stressor, such as a life-event change, which has enough intensity to impact a person's life. Extending the stress theory to include social stress has allowed researchers to study the conditions in the social environment that may affect health (Dohrenwend, 2000). Stress involves a state of arousal that arises from either facing challenging socio-environmental pressures that surpass an individual's usual ability to cope or from lacking the resources necessary to achieve desired goals (Aneshensel, 1992). Socio-environmental conditions differ in their capacity to trigger stress, while others can potentially threaten anyone. Although stress is not an inherent condition of any external event, it arises from the discrepancy between the conditions faced and individual characteristics. Stress can impact health directly or indirectly through a variety of psychobiological processes (see O'Connor et al., 2021). All this has led to addressing adaptability, traumatic events, stress response, allostatic load, chronic stress, and resilience.



Individuals who fall into stigmatized social groups, such as those associated with race/ethnicity, sexual orientation, gender identity, or disability, among others, are likely to experience significant effects from social stress. Prejudice and discrimination linked with these layers can demand adjustments and adaptations regarding cultural variables, identity, and behaviors, thereby being sources of stress. This type of stress is distinguishable from the general stress that everyone may experience. A myriad of frameworks and theories have contributed to improving our understanding of the relationship between stigma, social stress, and health-related to social structures and conditions (Allport, 1954; Brownlow, 2023; Clark et al., 1999; Hatzenbuehler, 2009; Hendricks & Testa, 2012; Link & Phelan, 2001; Meyer, 2003, Meyer & Frost, 2013; Sue & Sue, 1999; Williams, 2018). To comprehend how the social hierarchies of racism, sexism, heterosexism, transphobia, ableism or classism are embedded in the construction of individuals' social categories, intersectionality theory has made a critical contribution by highlighting their mutually constitutive nature (Crenshaw, 1989).

Intersectionality is the concept that recognizes the interconnections and overlapping nature of various social categories or identities, instead of treating them as separate and exclusive layers (Crenshaw, 1991). Intersectionality recognizes that oppression is not a singular phenomenon or a simple binary relationship but rather a complex interplay of multiple, intersecting, and intertwined systems (Collins, 2015). Although intersectionality still poses many challenges to operationality (Else-Quest & Hyde, 2016a, 2016b), it has had a remarkable impact in helping to understand structural, political, and representational dimensions of oppression. Intersectionality can be seen as a transitioning or traveling theory moving from Black U.S. feminism to different disciplines and settings (Lewis, 2013), but also from qualitative to quantitative methods (Bowleg, 2008).

Prejudice and social stress related to an underrepresented group's position can have detrimental effects on health through various mechanisms (Hatzenbuehler & Pachankis, 2016; Hinshaw & Stier, 2008; Hughto et al., 2015; Llewellyn et al., 2015; Vega & Rumbaut, 1991). Increased vigilance affects underrepresented groups' cognitive processes as a result of the need to anticipate and avoid stigmatizing events, and their efforts to do so may negatively affect mental health outcomes and disrupt cardiovascular functioning.

Rumination due to repeated stressful and stigmatizing experiences fosters maladaptive emotional regulation processes. Loneliness, stigma, and minority stress may disrupt interpersonal relationships leading to a lack of social network, psychological distress, and anxiety. Chronic stress, similarly, can lead to physiological dysfunctions that modify hypothalamic–pituitary–adrenal axis activity and the response to the associated stress, such as cortisol regulation.

ACEs are unequally distributed in society (Sharkey et al., 2018). Underrepresented groups are often exposed to a higher risk of negative experiences in childhood and victimization throughout their lifetime than their non-minority group counterparts (Giano et al., 2020; Mersky et al., 2021). This includes incidents during childhood and adolescence perpetrated by peers and caregivers or victimization experiences in adulthood by various individuals. Consequently, these individuals often find themselves grappling with discrimination and violence daily. ACEs occur in interaction with the social position context of the individual and their social group, which can have significant implications for contributing to health disparities. Stress factors embedded in individuals' social position can contribute significantly to distress and health problems.

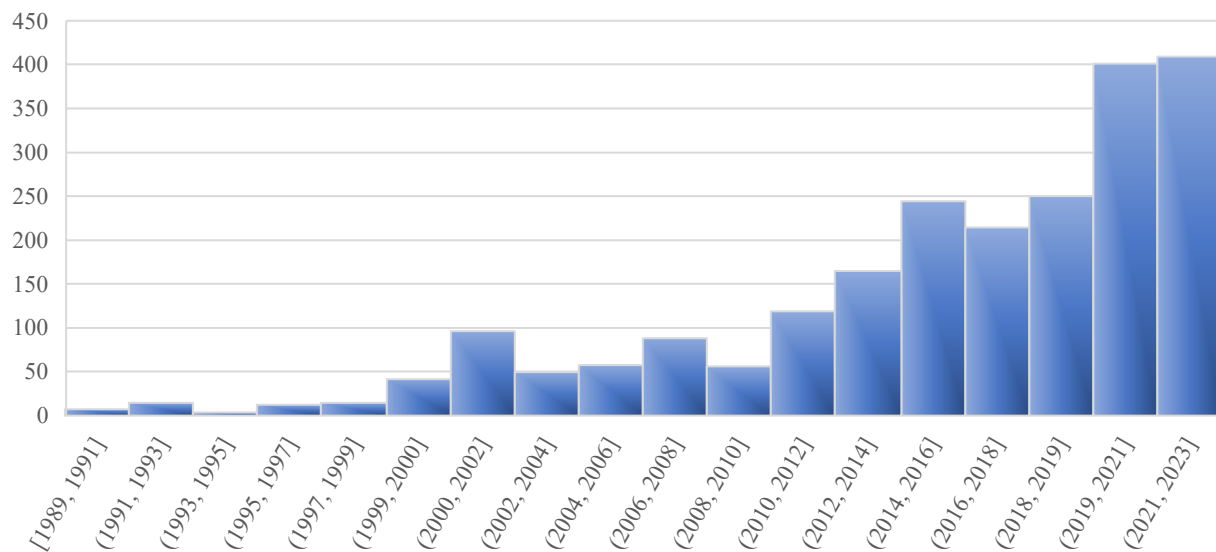
## **1.4. Hate crime framework**

### ***1.4.1. Hate crime concept***

The long-term problem of intergroup conflict, violence against underrepresented groups and discrimination has been addressed as a social problem by the hate-crime movement. The proliferation of hate crime laws has seemingly played a significant role in raising social awareness about discrimination, the oppression of underrepresented groups, and violence driven by bias. Driven by its recognition, research on hate crime has increased significantly over the years, especially in the last decade (Figure 2).

The concept of hate crime or bias crime, originating from sociolegal studies and driven by social and civil rights movements, is intricate as it encompasses laws and criminal responses aimed at addressing and punishing behavior motivated by hatred, hostility, or prejudice directed towards individuals or property based on the victim's vulnerability or the offender's choice (Jacobs & Porter, 1998). While it may not be entirely feasible or universally attainable to establish a universally accepted definition of hate crime to a certain extent

(Brudholm, 2016), the pursuit of a common core and definitional boundaries remains desirable but has not yet been achieved. What sets hate crimes apart from common offenses is the combination of a conventional offense and a motivation that is partially or entirely based on bias, encompassing factors such as race, ethnicity, religion, gender identity, sexual orientation, disability, or a combination thereof. The hate crime framework also acknowledges the proven impact of bias-motivated violence as a potentially traumatic event on the health of the victims (Allwood et al., 2022).



**Figure 2.** Search results on “hate crime” on Scopus.

Historically, the emergence of anti-hate legislation in the West took place in the 1980s, coinciding with the height of neoliberalism and a wave of punitive laws. During this time, the state's approach to addressing poverty, income inequality, and social conflict focused on control and discipline rather than directly tackling these issues (Soss et al., 2011). Crime was often viewed as a moral decline or values crisis, leading the state to prioritize individual punishment of offenders while disregarding the underlying structural causes (Wacquant, 2009). Despite a consistent decrease in crime rates across most regions since the early 1990s (Farrell et al., 2014), there has been a consolidation of penal populism over the years (Pratt, 2007). This paradoxical situation is characterized by the growing prevalence of formal social control over informal control and an increasing emotional approach to punishment.

Consequently, hate crimes have been categorized within legislation as a distinct phenomenon with more severe characteristics warranting additional retribution.

However, due to their ambiguity, some anti-hate legislation emphasizes prejudice or hatred, while others focus on bias or discrimination as the core element of hate crimes. The emphasis on bias or prejudice allows for the identification of how a motivated offender specifically targeted the victim based on their identity (Brudholm, 2016). This recognizes the severity of hate crimes as a violation of human rights, highlighting that they are in some way worse than offenses committed without a biased motivation (Brudholm, 2015). Although anti-discrimination legislation can also encompass hate crimes regardless of bias, if this model is transposed to the context of hate crimes without due diligence, there is a risk that the fight for recognition of the discriminatory element overshadows the recognition of injustice independent of the underlying offense (Brudholm, 2016).

Similarly, there is a lack of specificity and agreement regarding the purpose and scope of this type of legislation, which questions the underlying foundations upon which anti-hate legislation is built. Mason (2014a) explains that the aim of anti-hate legislation, by explicitly punishing prejudice, bias, and group hostility as elements of criminal behavior, is to provide the law with a symbolic function, not only to condemn the conduct but also the inherent prejudice. The goal is to reverse social norms by conveying the message that victims of hate crimes suffer unjustifiable oppression. In other words, if anti-hate legislation presents offenders as deviant individuals, the intention is to avoid a similar social construction of victims or protected groups as another type of deviant. According to the author, there is an emotional and political aspect in the legal process of transforming the dominant morality. Therefore, feelings of compassion or sympathy appear to play a key role in the ethical judgments necessary to listen and respond to demands for social justice. The ideal victim contributes to the symbolic nature of the norm, expressing their claim through vulnerability and deserving collective concern that promotes legal protection. However, it is important to limit the criteria supporting legal protection. We should carefully assess the necessity of extending this protection to groups of victims without sufficient justification, considering the well-documented risks of over-criminalization and implementation challenges, as emphasized by Mason (2014b). These challenges are well-known and include the

introduction of multiple new offenses, increased penalties, and diminished safeguards (Husak, 2008).

Regarding the universality of the hate crime concept and hate crime laws, the transfer to diverse socio-cultural and normative societies beyond the Western sphere emphasizes the importance of considering specific factors when evaluating the similarity of certain social contexts. Arnold (2015) provides a compelling example by raising doubts about the applicability of the hate crime framework to racist violence in Russia. Despite this violence being subject to additional penalties under Russian laws, due to its structured and systematic nature compared to other European or Western societies, it is more closely related to direct ethnic conflict rather than a manifestation of criminal deviance.

#### ***1.4.2. The philosophy under the hate crime laws***

Legislation addressing hate crimes in various regions, including the United States, Canada, Australia, New Zealand, and Western Europe, has sparked intense debate regarding its purpose, symbolic role, and actual impact (Cogan, 2002; Fallik et al., 2022; Grattet & Jennes, 2001; Hurd & Moore, 2003; Jacobs & Porter, 1998; Phillips, 2009). Supporters of these laws argue that they are lawful and do not violate human rights because they do not punish mere opinions and have changed how society thinks about this problem. Instead, they impose greater punishment for the additional and symbolic harm caused, which extends beyond the individual victim. According to Kauppinen (2015), crime and punishment should generally be understood in expressive terms, recognizing the various ways attitudes can be expressed: symbolically and through diffusion. While hateful or prejudiced attitudes are not within the legitimate scope of the legislation, individuals who manifest these attitudes through actions that devalue the status of victims bear moral responsibility and should face greater punishment to safeguard the equality of the victim's group. In other words, if the act is reason-responsive, one can be held accountable for the underlying motives behind their action (Brax, 2016), thus necessitating a causal test in hate-motivated crimes.

On the other hand, criticism argues that anti-hate legislation is primarily symbolic, lacks a practical purpose beyond expanding criminalization, and faces difficulties in determining intent or motivation (Sullaway, 2002).

As a result, labeling specific incidents as hate crimes is fraught with subjectivity and the potential for bias (Jacobs & Porter, 1997). Objectors also argue these laws violate human rights and serve as a means for governments to punish ideas, thoughts, and opinions, potentially opening the door to punishing any motive deemed intolerant (Iganski & Lagou, 2015). Regarding their implementation, it is argued that these laws are deployed without sufficient consideration for societal power dynamics and social inequalities, potentially replicating imbalances or inequalities rather than challenging them due to the well-known race and class biases of the legal system (Franklin, 2002, Najdowski & Stevenson, 2022). Therefore, these laws can be seen as condescending or ineffective, and may even exacerbate social conflict and hostile treatment towards underrepresented groups (Meyer, 2014). The argument in favor of these laws as deterrents assumes that offenders will not be deterred by punishment for the common offense but will be deterred by enhanced punishment. Therefore, if the anti-hate provision does not hold a deterrent effect, it is not based on a prevention strategy, solely on punishment (Moran, 2001). While they may encourage underrepresented groups to participate more in democratic processes, they do not effectively prevent or deter violence against them. These perspectives posit that anti-hate legislation may have ultimately reinforced the neoliberal approach to punishment by expanding police and fiscal power, and this has not effectively curbed the prevalence of violence and discrimination against marginalized groups (Meyer, 2014).

In summary, the hate crime framework makes sense for addressing incidents where bias is a primary component. In contrast, its applicability is limited when bias is a peripheral component of the offensive behavior (Phillips, 2009). Despite the efforts made over the past decades, hate crime legislation continues to exhibit conceptual inconsistencies, and variations in purview and content (Bills & Vaughn, 2023; Fallik et al., 2022). Likewise, the public policies in its name are often disconnected or not linked to academic research (Chakraborti, 2016).

## **2. Justification of the current research**

Prejudice, identity, stigma, intergroup relations, and attitudes play a role in understanding bias-motivated violence and its heterogeneous and distinctive health consequences. Bias-motivated violence encompasses various types of targeted violence against underrepresented groups, such as ethnic-racial minorities, sexual and gender minorities (SGMs), people with disabilities or indigenous people. They also cover multiple identities through the intersecting prejudices and discrimination processes (Turan et al., 2019). As explained before, one of the main arguments about the relevance of this phenomenon is that, by definition, bias-motivated violence tends to be considered a more serious form of victimization than non-bias-motivated violence (Iganski, 2001). The stressors related to social identity are a unique type, different from non-bias-related stressors. Bias and prejudice are often ingrained in antisocial and violent behavior. Research in this area has shown that bias-based victims are likely to experience a greater degree of negative consequences compared to other victims of violent crime. These consequences include higher levels of psychological distress, post-traumatic stress, depression, anxiety, fear, suicidality, concern for crime and safety, and a greater sense of vulnerability (Katz-Wise & Hyde, 2012; Lannert, 2015; Lantz & Kim, 2019).

During the last two decades, research on bias-motivated violence has flourished. However, the subject matter of this topic is multifaceted and intricate. The absence of an integrated view prevents a better understanding, making it challenging to attain a comprehensive insight, as research findings tend to be scattered or isolated across different disciplines due to the multiple levels of analysis. At the same time, there are various gaps in the study of bias-motivated violence, including limited investigation regarding certain groups and settings, the distribution of victimization patterns, and the experiences of some underrepresented groups that remain obscured.

### **3. Objectives and hypothesis**

The present dissertation seeks to contribute by critically analyzing and synthesizing the literature on bias-related violence involving ethnic and racial minorities, while also providing new insights into two other underrepresented groups: people with intellectual disabilities (ID) and sexual minorities (SMs).

The four studies compiled address the following aspects:

- The first study is an integrative review of bias-motivated violence (Whittemore & Knafl, 2005; Torraco, 2005), aiming to provide a more comprehensive understanding of the phenomenon. In this study, an epistemological framework is proposed, and the most relevant past empirical evidence and theoretical studies involving ethnic and racial minorities are summarized and analyzed. The study yields a series of conclusions, reflections, and recommendations with research and practice implications.
- The second study is a research article analyzing the rates and odds of ACEs and their relationship to suicide attempts in a sample of undergraduate students, comparing sexual minority (SM) individuals with their heterosexual counterparts.
- The third study is a research article that addresses the victimization experiences among people with ID, comparing bias and non-bias victims.
- The fourth study is a research article that utilizes interdependence techniques to identify victimization clusters among individuals with ID.



**Table 2.** Summary of the objectives and hypothesis for the empirical studies.

Study	Objectives	Hypothesis
2	Examine the rates and odds of ACEs and suicide by comparing a matched sample of SM individuals with their heterosexual counterparts.	SM individuals would report higher rates of ACEs than their heterosexual counterparts.
	Analyze the relationship between SM status and ACEs with suicide attempts.	The SM group would report a higher rate of suicide attempts.  SM status, along with certain ACEs, would be associated with suicide attempts.
3	Analyze the number of victimization experiences and polyvictimization status among people with ID, comparing bias and non-bias victims.	Individuals with ID who experienced bias victimization are likely to report higher levels of other forms of victimization  People with ID who have experienced bias victimization would be overrepresented in the poly-victimization group.  Within the group of bias victims, such experiences would be seldom isolated incidents.
4	Identify victimization clusters among individuals with ID.	The cluster technique would yield clearly different profile of victims among individuals with ID.

Summarize and compare the victimization experiences among different classes and analyze the characteristics of the individuals within these classes.

Compare the degree of agreement between the two identification methods: the victimization class with the highest rates of victimization arising from the cluster technique and the poly-victimization method.

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The cluster technique and the poly-victimization method would have a moderate to high level of agreement when it comes to identifying the most victimized group, but they would also exhibit differences

#### **4. Study 1. Is there such a thing as a hate crime paradigm? An integrative review of bias-motivated violent victimization and offending, its effects and underlying mechanisms**

Díaz-Faes, D. A., & Pereda, N. (2022). Is there such a thing as a hate crime paradigm? An integrative review of bias-motivated violent victimization and offending, its effects and underlying mechanisms. *Trauma, Violence & Abuse*, 23(3), 938–952. <https://doi.org/10.1177/1524838020979694>

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## **Abstract**

Despite the growing number of bias-motivated violence studies, the evidence available remains limited and there are several gaps in our understanding of the complex relationship between negative attitudes and biased violence. In addition, the literature on this topic has many facets and nuances and is often contradictory, so it is difficult to obtain a clear overall picture. Research has made good progress in this area, but it still suffers from a lack of systematization and from a highly segmented approach to victimization and offending. To contribute to a more comprehensive understanding of the subject, this integrative review provides a critical reappraisal of the theoretical, methodological and empirical research from a systemic perspective. To this end, 134 academic publications on personality and social psychology, clinical psychology, epidemiology, sociology, criminology, political science and related disciplines were examined. The evidence suggests that although bias-motivated violence shares characteristics with other types of offensive behavior it is actually a unique phenomenon, due to its background rooted in prejudice, identity and attitudes in which the intersection of individual, psychosocial and ecological factors is especially relevant. The impact on the victim and their community is diverse, but it has a series of distinctive severe psychological consequences that significantly reduce the probability that incidents will be reported. Here we present a series of findings and reflections on bias-motivated violence and provide recommendations for research, practice and policy.

**Keywords:** prejudice, stigma and discrimination, trauma, individual differences, intergroup relations, bias crime, hate crime.

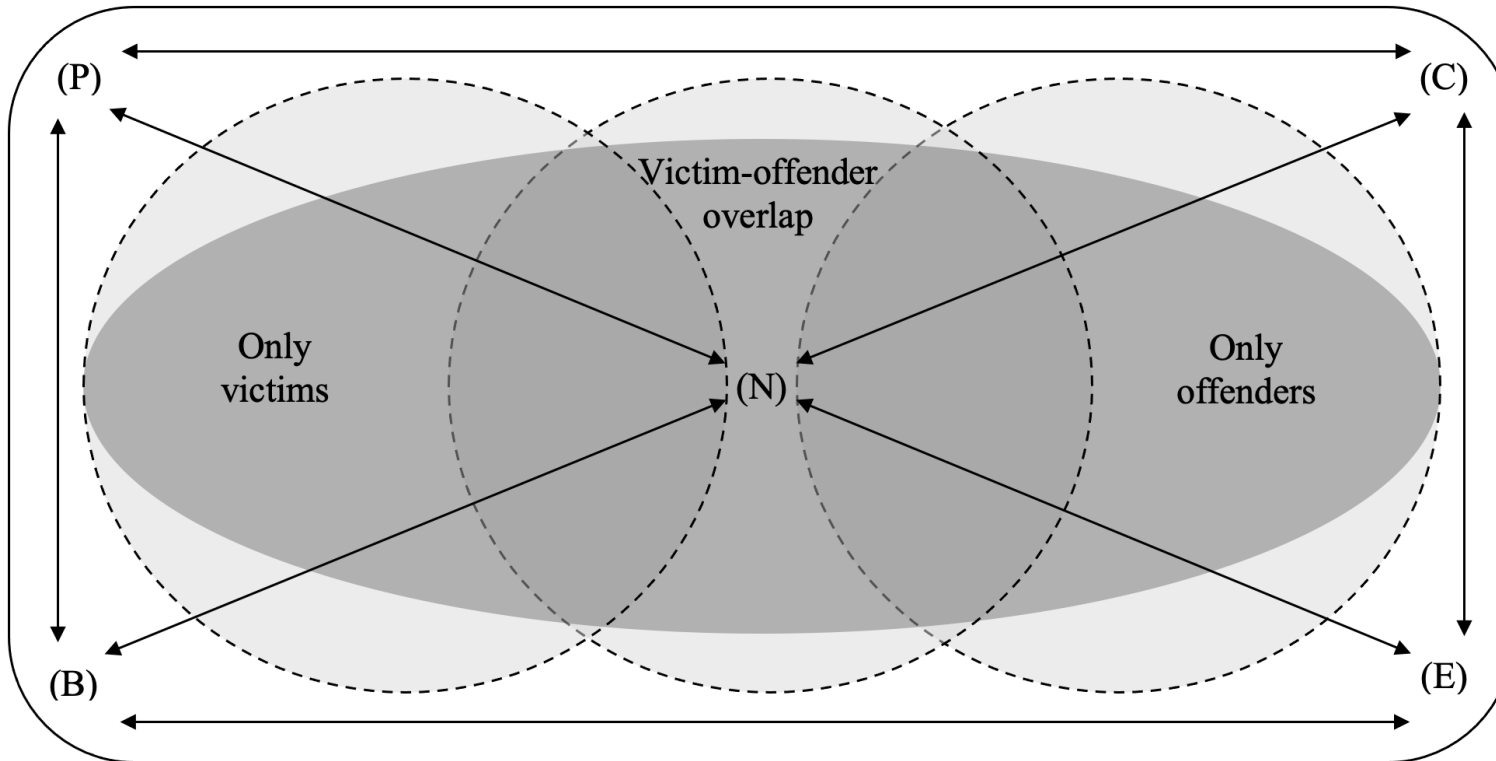
## Introduction

Most research on social science focuses on specific aspects of social facts. From an epistemological view, this focus arises from the two main social philosophies—holism and individualism— which originally propose two opposing social ontologies of social facts (Bunge, 1979, 2000). The holistic perspective considers individual action as a result of the pressure of social entities, implying the social integration of individual behavior, while the individual perspective considers that social facts derive, in one way or another, from individual action and behavior. These two social philosophies have traditionally guided—but also fragmented—social science research. Despite the presence of approaches that combine elements from both methodologies (List & Spiekermann, 2013; Udehn, 2002), mixed holistic individual or multilevel explanations are still relatively uncommon (Kincaid, 2015).



In addition, research on crime is deeply segmented between victimization and offending paradigms, an approach that ignores the potential theoretical and empirical overlap between victims and offenders (Jennings et al., 2012). Despite the substantial progress made by research into bias-motivated violence and/or hate crime in recent years, the evidence remains fragmented and barely integrated. There are very few reviews of note (e.g., K. M. Craig, 2002), but none of the studies published to date have synthesized the different levels of analysis of the subject. The concept of bias/hate crime is a social construct that has been used variably to describe antisocial and criminal behavior motivated by hate, hostility, or prejudice based on the victim's vulnerability or the offender's choice (B. Perry, 2001; Wickes et al., 2015). However, there is a certain conceptual disparity in the legal definitions, and the gaps that remain (e.g., drawing the picture of the "ideal victim," the existence of divergences regarding hate crime victim status and nonpoliticized identities) often restrict the opportunities to capture bias-motivated incidents (Chakraborti & Garland, 2012; D. P. Green et al., 2001; Wickes et al., 2015) or even reinforce intergroup asymmetries due to the prevalence of certain types of institutionalized violence (D. Meyer, 2014). For these reasons, from a social perspective, we use bias-motivated violence as a more inclusive term in which different types of targeted violence converge addressing the intersection process of the multiple factors involved and its mechanisms, as well as the effects of this type of violence on victims and their groups or communities.

## **The current study**

In this article, we use an integrative review methodology (Cronin & George, 2020) to provide a critical analysis and thematic synthesis of 134 indexed publications. We base our epistemological approach on Bunge's (2006) systemic perspective on crime so as to provide a more comprehensive understanding of the different aspects of the phenomenon (illustrated in Figure 3). Systemism admits both micro (individualist) and macro (holistic) approaches and postulates multiple and frequent reciprocal causation (Bunge, 2000). The systemic perspective conceives the individual as part of several social systems, influencing and interacting with each other dynamically and bidirectionally. Thus, it considers the person who carries out deviant, antisocial, or criminal behavior as both victim and offender, involving the two different dimensions of the phenomenon: bias-motivated violence (the moral and/or antisocial dimension of the social fact) and bias/hate crime (the legal or antinormative dimension of the social fact). This highlights the importance of interdisciplinarity and pluralism in the study of social problems and the interrelated underlying variables involved in their (multi)causality or etiology (Sullivan, 2019).



**Figure 3.** Systemic perspective on bias-motivated violence as a social fact.

*Note.* Based on Bunge (2006). Bias-motivated violence , hate crime , environmental (N), biopsychological (B), economic (E), political (P), and cultural (C).

The study of prejudice and attitudes toward ethnic/racial groups was the main focus of our analysis because it is the area that has been addressed in most depth so far. Thus, the aims of this review are (1) to examine the most relevant empirical studies and break down them through specific theoretical frameworks, (2) to contribute to the development of an integrative perspective on bias-motivated violent victimization and offending, and (3) to offer some reflections and recommendations for practice, policy and research on this field.

To cover the study on bias-motivated violent victimization and offending from different scientific disciplines, a search was performed in the following databases: PubMed, Scopus, Web of Science, PsycINFO, and ProQuest. The search terms were related to violence (i.e., *hate crime, ethnic violence, racial violence*), discrimination (i.e., *ethnic discrimination, racial discrimination, dramatic events*), intergroup relations (i.e., *intergroup contact, intergroup attitudes*), and personality (i.e., *social dominance orientation [SDO], right-wing authoritarianism [RWA]*). Inclusion criteria were quantitative peer-reviewed articles published in English over the last 20 years (from 2000 to May 31, 2020). Books or book chapters, letters, editorials, and paper conferences were not included, and neither were studies that analyze gender-based or intimate partner violence, domestic violence, peer violence (i.e., *bullying/cyberbullying*), microaggression alone, and self-harm violence. We also examined reference lists from previous literature reviews found in our search. When the search process was complete, references were imported into EndNote software to delete duplicates. From an initial sample of almost 9,000 articles, we finally obtained some 500 full-text articles to assess for eligibility. In the selection process, we prioritized studies with a more robust methodology (i.e., longitudinal designs, random samples, control groups, and/or representativeness). Throughout the article, for better understanding, we have used relevant empirical and theoretical studies in order to build a comprehensive framework in which to display the articles reviewed.

Following the systemic approach, but due to the fragmentation and segmentation mentioned above, which means that contemporary research remains organized along hierarchical levels (Potochnik & McGill, 2012), we review the current evidence in these two sections: bias-motivated violent victimization and bias-motivated violent offending. The first section includes (a) Trauma, Minority Stress, and Intersectional Stigma; (b) Group Identification and Resilience; and (c) Intervention and Reporting. The second section



includes (d) Individual Features: Personality and Prejudice, (e) Psychosocial Features: Intergroup Relations and Attitudes, (f) Structural Features and Social Ecology, and (g) the Presence of Multiple Perpetrators. A cross-cutting approach was used to analyze the cultural, sociopolitical, and economic features. To make the review process more comprehensive, we addressed bias-motivated violence in the criminological theory accounts. Finally, in the Discussion and Conclusions section, we consider the main findings and offer some reflections and recommendations.

## **Bias-motivated violent victimization**

### ***Trauma, minority stress, and intersectional stigma***

One of the main arguments about the relevance of this phenomenon is that, by definition, bias-motivated violence tends to be considered a more serious form of victimization than non-bias motivated crime (Iganski, 2001). The first studies on this topic (e.g., Barnes & Ephross, 1994; Herek et al., 1997), mostly carried out in the United States, analyzed the impact of hate victimization and found that it is more harmful to victims than other types of victimization. These studies indicated that victims of bias-motivated violence are more likely to experience a greater degree of psychological distress than other victims of violent crime, including higher levels of post-traumatic stress, depression, anxiety, fear, concern for crime and safety, and a greater sense of vulnerability. However, the methodology used by these studies is characterized by the use of nonrandomized samples, a lack of control groups, a combination of different types of victim as if they were a homogeneous group, and a divergence of instruments and indicators. Recent studies have addressed these deficits by using random samples or secondary analyses of crime victimization surveys (e.g., Fetzner & Pezzella, 2019; Herek, 2009; Iganski & Lagou, 2015), and by conducting longitudinal studies (Benier, 2017; Paterson et al., 2019), reviews (McKay et al., 2019), and meta-analysis (Katz-Wise & Hyde, 2012). Current empirical research on bias-motivated violence has been extended to targeting hard-to-reach groups such as people with intellectual disability, homeless, or undocumented immigrants (Allison & Klein, 2021; Emerson & Roulstone, 2014; Garcini et al., 2018), as well as to other targeted groups and identities such as members of alternative subcultures (Garland & Hodkinson, 2014), and has also been complemented by ethnographic studies (Funnell, 2015).

Research on minority stress (I. H. Meyer, 2003), intersectional stigma (Ching et al., 2018; English et al., 2018), discrimination, and perceived discrimination and its relation to negative physical, mental, and behavioral health outcomes have confirmed the harmful potential of bias-motivated violence (Pascoe & Richman, 2009; Schmitt et al., 2014; D. R. Williams et al., 2019), as well as the detrimental effects of stressors related to cultural and social structures and processes. Whereas evidence about the indirect impact of bias-motivated violence is still emerging, Paterson et al.'s (2019) longitudinal study confirmed that the indirect impact of bias-motivated violence on SGM communities through the media both in the short and long term undermines intergroup stability and community solidarity.

However, responses to stigma vary widely between people, groups, and contexts; different stressors evoke different responses, and since the life experiences of stigmatized people are distinct from those of their non-stigmatized peers, they are likely to develop different coping skills (Miller & Kaiser, 2001). In this sense, intersectional stigma framework has arisen precisely to understand the convergence of multiple stigmatized identities (Turan et al., 2019). Emerging research on this area has shown the importance of reconsidering current stigma-related stress frameworks (Jackson et al., 2020). Moreover, stigma itself is a fundamental source of health inequalities and is an important factor to consider in the attempts to improve public health interventions (Hatzenbuehler et al., 2013).

In sum, the set of studies just mentioned demonstrates the asymmetry among the forms of bias-motivated violent victimization. The trauma suffered by the victim is diverse, and it may even have indirect effects on their own in-group. In this respect, transgender people seem to be the most physically and psychologically affected (Stotzer, 2009). Bias-violence victims often experience revictimization, which reinforces the already present adverse effects (Lannert, 2015); in fact, post-traumatic stress disorder (PTSD) is the main mental disorder among the most severe bias-violence victims (K. Craig-Henderson & Sloan, 2003; Cramer et al., 2018). However, Michalopoulos et al. (2020) noted some relevant post-trauma symptoms that are not evaluated in PTSD. Within race-motivated bias violence, Carter's (2007) race-based traumatic stress model suggests that negative race-based encounters can cause extreme levels of stress and may lead to potentially traumatic reactions. Carter theorizes that the relationship between race-based traumatic stress and trauma symptoms can be conceptualized as a unique form of stress and a nonpathological form of trauma, with its

own pattern of symptoms (Carter et al., 2020). Nonetheless, some methodological limitations persist when measuring race discrimination and trauma (Kirkinis et al., 2018), and more specific, better suited instruments to assess these concepts are required (M. T. Williams et al., 2018).

In relation to the general risk of victimization by aggression, Messner et al.'s (2004) study using the National Incident-Based Reporting System (NIBRS) did not identify significant differences regarding the risk of bias victimization among the Black population and other ethnic–racial minorities. However, the evidence remains inconsistent with regard to the characteristics that best predict the consequences of injury. Also using NIBRS data to compare injuries in intra-racial, interracial, and race-based offenses, Powers and Socia (2018) identified variations between the racial dyad and the presence of racial animosity, the offender's race being the strongest predictor. Their results do not uniformly support adverse effects, racial animosity, or prior hate crime research, but they do show that analyzing both the race of the victim and the aggressor together is a crucial requirement for future research since it may have a significant effect on the results of hate crime studies and in particular on those associated with violent victimization.

With respect to the characteristics of the victim, Van Kesteren (2016) analyzed 14 Western European victimization surveys and found that hate crime victims seem to be similar to the victims of common violent crime in public spaces. At the individual level, the main risk factors are being young and migrant, while other relevant factors have been detected such as residing in a large city or having an outgoing lifestyle. However, the fact that migrants are overrepresented among hate crime victims does not imply that the majority of victims are migrants; in this study, they accounted for 26.5% of all victims. Likewise, although the ethnic composition of migrant communities varied considerably among the 14 countries, the prevalence of hate crimes correlated positively with the size of the immigrant communities, with migrants being particularly exposed to this type of victimization. The author concluded that hate crimes in Western Europe seem to be a special manifestation of violence among young urban men in the nighttime economy.

### ***Group identification and resilience***

As seen above, bias-motivated violent victimization may impact victims in different ways. In this regard, the relationship between group identification and psychological well-being among underrepresented groups is intricate. The stressors related with social identity are a unique type, quite different from non-bias-related stressors, and with severe consequences for health (Bey et al., 2019). When bias and prejudice are conceptualized and broadly categorized as racism or homophobia, for example, this may hide important differences between group members since some of them may experience more prejudice and discrimination than others (Stangor et al., 2003). To explain this variability, research has focused on individual, situational, and structural factors. Maddox's (2004) review shows how a perceived racial phenotype mediates affective, cognitive, and behavioral responses to individuals since people with a more typical phenotypic appearance are more likely to be stereotyped, evaluated, and discriminated negatively than less prototypical ones.

Members who strongly identify with the stigmatized in-group are more likely to perceive group-based injustice and pursue collective action (Wright & Tropp, 2002). But they are also initially more vulnerable to group threats (McCoy & Major, 2003) because bias toward the in-group also implies a threat to themselves; implicitly, this suggests that their group is not welcome in the community, a situation that can cause them insecurity and psychological distress. However, it is conceivable that this kind of threat may trigger the very opposite response: This identification may be reinforced and may be a source of resilience. In fact, research has shown that high identification with a stigmatized group can be positively associated with self-esteem and psychological well-being (Smith & Silva, 2011; Tropp & Wright, 2001) provided that mechanisms that reduce stress such as social and emotional support are available, although this is not always the case.

### ***Reporting and intervention***

At present, reporting and intervention on bias-motivated violence are far from being effective (Chakraborti, 2018). Although this type of violence tends to suppress victim reporting more than non-bias-motivated crimes (Pezzella et al., 2019), this does not hide the fact that there are also ethnic– racial and gender differences in reporting rates (Myers & Lantz, 2020). It is also necessary to consider how different legal definitions affect the

reporting prevalence between groups (Stacey, 2015). Furthermore, the perception of police legitimacy is related to the victims' propensity to report the victimization experience to the authorities (Bottoms & Tankebe, 2012), which also underlies other police practice variables such as discretionary and cultural or political rationalization of xenophobia and violence against underrepresented groups (Cronin et al., 2007; Sausdal, 2018). This seems to be moderated by the political climate of the particular country since minorities' trust in the police seems to be negatively associated with the level of political discrimination (Piatkowska, 2015), supporting the idea that the position of the individual in society affects their perception of the police (Weitzer & Tuch, 2004). Finally, in ethnic-racial bias victimization, some studies have shown that examining the victim-offender as a tandem, as a racial dyad instead of separately, can be an important predictor of reporting (Powers et al., 2020).

On intervention, Levy and Levy (2017) showed that legal equality in the United States contributes to the reduction of the sexual orientation-based violence that restricts discursive opportunities. Beyond the idea of legal recognition, de Freitas et al.'s (2018) meta-analysis of perceived discrimination in Europe highlighted its detrimental effect on several psychosocial dimensions. Their study emphasized the state's need to develop systemic interventions to reduce ethnic prejudices and to promote multiculturalism and implement large antidiscrimination policies. Similarly, Whitley and Webster's (2019) meta-analysis of intergroup ideologies to reduce ethnic prejudice showed that multiculturalism is associated with lower levels of prejudice. Nevertheless, as pointed out by the authors, more research is needed to understand the circumstances in which multicultural interventions can have a more long-lasting effect on intergroup attitudes.

Jointly, these efforts should help to reduce the number of unreported bias-motivated crimes and thus increase the underrepresented groups' confidence in the authorities. This must be accompanied by more effective and adequate action on the part of the authorities, in responses to the victims' needs and by the creation of synergies with alternative reporting mechanisms such as third-party reporting centers (Schweppe et al., 2020).

## **Bias-motivated violent offending**

### *Individual features: Personality and prejudice*

Research has shown the contribution of individual factors, internal states and processes to aggression and violence (Anderson & Bushman, 2002), so there are different pathways that can lead to bias-motivated violence. In a few words, it includes not only psychological traits but also cognitive and affective processes through which perpetrators identify their victims, generate hostility, and become more likely to perpetrate violent acts. Therefore, here we analyzed the relationship between prejudice, personality, and ideological attitudes with regard to bias-motivated violence.

Prejudice is the tendency to negatively evaluate people or individuals because of their belonging to a certain social group or category, and it manifests itself through attitudes, emotions, or behaviors (Brown, 2010). It entails cognitive, affective, and conative components that operate in the development of biased attitudes, hostile feelings, and discriminatory behaviors. Prejudice has been commonly studied as a social or group phenomenon, but it can also be seen as an individual phenomenon in the sense that individuals may differ in terms of their propensity to adopt prejudiced and ethnocentric attitudes (Duckitt, 2001).

Several personality studies (Akrami & Ekehammar, 2006; Asbrock et al., 2010; Duckitt, 2006; Sibley & Duckitt, 2008) have identified two personality types that predict prejudice: RWA and SDO. These can be framed in the Big Five personality model (Goldberg, 1993) based on the dimensions of openness, conscientiousness, and agreeableness (R. Perry & Sibley, 2012).

RWA is a construct based on conventionalism, submission to authority, and authoritarian aggression such that individuals with a high RWA usually support traditional values, are submissive to authority, and are highly ethnocentric. Consequently, they are more likely to be aggressive against out-groups (Altemeyer, 1998). SDO describes the individual's preference for intergroup relations, establishing whether an individual generally prefers equal or hierarchical relationships. People with high SDO tend to promote intergroup hierarchies and classify social groups into vertical hierarchies (Pratto et al., 1994). Research in behavioral genetics suggests that personality traits associated with RWA and SDO may

be determined by genetic influences and unique situational experiences (Hodson & Dhont, 2015). Therefore, RWA and SDO as individual differential factors are strong predictors of generalized negativity toward out-groups (Duckitt, 2006). Indeed, Meeusen et al. (2017) found that neighborhood, friendship, and perceived threats help to identify and predict attitudes toward specific out-groups.

Research in several cultural contexts has systematically found that different prejudicial attitudes toward specific groups tend to have a high correlation and share a generalized prejudice, that is, a general tendency to devalue all kinds of out-group (Asbrock et al., 2010; Bergh et al., 2016; Zick et al., 2008). This does not mean that all specific prejudices merge into a generalized prejudice factor but that there is a general prejudice and then a specific focus on the target group (Meeusen et al., 2018). In other words, there is a dual structure that implies that there may be factors associated with generalized prejudice and others more strongly associated with specific prejudice (Akrami et al., 2011). Regarding perpetrators of ethnic–racial violence, Messner et al. (2004) found that they are more likely to be versatile offenders than specialists and more likely to use drugs and alcohol during the crime than conventional perpetrators. Despite some limitations, the association between substance abuse/misuse, violence, crime, and recidivism is well established (Bennett et al., 2008; Dowden & Brown, 2002; Duke et al., 2018), especially where substance abuse disorder occurs alongside other mental disorders (Elbogen & Johnson, 2009). However, their relationship with violence is mainly indirect and contingent (Hiday, 1997) since there are also other relevant variables such as the previous history of violence and environmental stressors. Nevertheless, the way in which substance abuse contributes to the type of crime and the probability and severity of violence used is less well understood (Kopak et al., 2014).

### ***Psychosocial features: Intergroup relations and attitudes***

As with individual differences, the psychosocial dimensions of bias-motivated violence involve several interconnected aspects. Here, we review the evidence of the two main theoretical psychosocial approaches in regard to intergroup relations that seem to propose contrasting hypotheses. On the one hand, integrated threat theory and ethnic competition theory present diversity as a source of conflict that promotes negative attitudes

toward out-groups, and, on the other hand, intergroup contact theory proposes that contact between groups reduces prejudices and negative attitudes toward out-groups.

Integrated threat theory (Stephan & Stephan, 2000), which like ethnic competition theory focuses on conflict, proposes that the vast majority of intercultural interactions are affected by two types of intercultural threat: real threats, characterized by concern for potentially negative material outcomes, and symbolic threats, in which the concern is focused on potential threats to the dominant group's norms, values, or beliefs. Therefore, when an individual detects the existence of a threat, this can lead to negative emotional and physiological reactions, encouraging intercultural prejudices and negative attitudes as well as negative behaviors and direct hostility. Meanwhile, ethnic competition theory (Scheepers et al., 2002), which arises from realistic conflict theory (Sherif, 1966) and social identity theory (Tajfel & Turner, 1979), focuses on the context in which ethnic antagonism takes place. It can be summarized as follows: Competition, both individually and contextually, can reinforce the mechanisms of "social counter-identification," the final outcome of which is ethnic exclusion. The contextual level refers to macrosocial conditions, while competition at the individual level is determined by the dominant group's social conditions, that is, through the perceived threat of competition that mediates the effects of social conditions on ethnic exclusion. In fact, according to Scheepers et al. (2002), perceived threat is the strongest predictor of ethnic exclusion. Thus, ethnic competition theory emphasizes the relevance of intergroup relations and the struggles of power, status, and material rewards in which dominant groups develop prejudiced attitudes and discrimination toward subordinate groups based on real or perceived threats, which promote bias-motivated attacks. This highlights the importance of economic and demographic variables and the distribution of political power (Lyons, 2007).

The conflict hypothesis assumes that an out-group's size in a specific region affects the real or perceived competition between ethnic groups for material and intangible resources. Based on a large sample of the American population, Putnam (2007) presented the controversial conclusion that ethnic diversity is negative in terms of solidarity and social capital, especially at the trustworthiness level, such that diversity will evoke perceptions of threat and reduce social trust. This conclusion led Putnam to develop his "constrict theory" and expand the hypothesis of distrust to both in-groups and out-groups. However, Meer and



Tolsma's (2014) review showed that there is no empirical evidence to confirm that ethnic heterogeneity itself is negatively related to interethnic cohesion; nevertheless, neighborhood heterogeneity erodes intra-neighborhood cohesion. This effect seems to manifest especially in the United States, an increasingly diverse country in which the perceived loss of majority status by the White population affects the expression of racial prejudice and its reactive effect against demographic change (M. A. Craig & Richeson, 2014). Other research on White Americans also identified that perceptions of threat to dominant group values mediate the relationship between multiculturalism, ethnic identification, and prejudice (Morrison et al., 2010).

However, this finding has not been universally replicated in other Western countries (Stolle et al., 2013), and although interethnic threats lead to interethnic distrust, interethnic environments do not always give rise to threats. To explain this mixed evidence, Hewstone (2015) suggested that the consequences of diversity for trust and intergroup attitudes differ according to different immigration histories and social welfare policies.

For its part, intergroup contact theory (Pettigrew, 1998), which developed from the first studies on and theorizations about how contact between groups can potentially reduce intergroup prejudices (Allport, 1954), defines intergroup contact as “face-to-face interaction between members of clearly defined groups” (Pettigrew & Tropp, 2006, p. 754). This theory suggests that when members of different social groups interact with each other, attitudes toward their respective groups change; that is, greater contact between groups is associated with less prejudice (Pettigrew et al., 2011).

Intergroup contact theory's main hypothesis is that contact between groups promotes the reduction of prejudice. Pettigrew and Tropp's (2006) meta-analysis—515 studies, mostly cross-sectional—validated this hypothesis with a moderate effect size ( $r = -.215$ ). The three main intergroup contact mediators reducing prejudice are increasing knowledge about the out-group, reducing anxiety about intergroup contact, and increasing empathy and perspective taking. However, the knowledge effect seems to be less strong than anxiety and empathy (Pettigrew & Tropp, 2008). Al Ramiah and Hewstone's (2013) longitudinal study showed how the various characteristics of the intergroup context play a moderating role in determining the effectiveness of the contact; these characteristics include group status,

individual levels of prejudice, prior levels of contact, and intergroup ideologies. Therefore, although intergroup contact can have negative effects on intergroup attitudes (Stephan & Stephan, 1985), its effect is generally positive (Pettigrew & Tropp, 2006). Nevertheless, this may be because the effects of the contact are explained by self-selection (Schlueter & Scheepers, 2010); that is, members of the group with more negative attitudes tend to avoid contact between groups, while members with more positive attitudes encourage contact. In spite of this, the evidence has shown that the association of intergroup contact with positive attitudes is much stronger than with negative ones, and the benefits of contact include those individuals with higher RWA or SDO (Asbrock et al., 2012; Kteily et al., 2019). Even so, Piatkowska, Messner, and Hövermann (2020) reported that the rate of intermarriage among the Black population increased the likelihood of experiencing hate victimization. This shows that there are risk factors that remain to be explored.

With regard to the directionality of this association, that is, whether contact causes a reduction of prejudice or whether it is the more tolerant individuals that seek contact, Binder et al.'s (2009) longitudinal study identified that both causal paths have a similar impact and also that the effects of contact on underrepresented groups are, in general, less intense than on the majority group. In this sense, the quality of contact is usually a better predictor of prejudice than the quantity (Brown et al., 2007). Moreover, Wölfer et al. (2019) identified a positive effect of indirect contact on future direct contact, as it reduced the intergroups' anxiety. Thus, their results showed how indirect contact can promote direct contact and, by extension, may be able to promote social cohesion in various contexts over time.

In this respect, research has traditionally studied the role of prejudice toward ethnic/racial minorities and how attitudes toward immigration and immigrants are constructed. However, several studies have analyzed these variables jointly (Ceobanu & Escandell, 2010). Although the evidence shows some contradictions, it seems clear that despite the antagonism between the theoretical frameworks, the conflict and intergroup contact hypotheses are largely complementary. For example, Savelkoul et al. (2011) used the conflict and intergroup contact hypotheses to explain anti-Muslim attitudes in the Netherlands.

Their results showed that the out-group size seems to promote a perceived threat, which leads to anti-Muslim attitudes. Similarly, they also found that group contact causes the out-group “familiarization effect,” which reduces the level of perceived ethnic threat. Additionally, in a comparison at European level, E. G. T. Green et al. (2020) found that this effect can be enhanced through institutional promotion of tolerant policies, which facilitate intergroup contact and its positive outcomes.

Following on from this, over the last decade, the comparative study of in-group–out-group populations has been enhanced by the increasing availability of transnational data. Analyzing Eurobarometer surveys between 1988 and 2000, Semyonov et al. (2006) found that negative attitudes toward foreigners tend to be more pronounced in places where there is a large foreign presence and where economic conditions are less prosperous. The impact of these variables has remained stable over the years, but the effect of political ideology has increased. In a contextual analysis of the first round of the European Social Survey (ESS 2002), Schneider (2008) found that it is not the immigrant’s economic status but their non-Western origin that affects the level of perceived ethnic threat in Europe.

Analyzing the fifth round (2010) of the ESS, Gorodzeisky and Semyonov (2016) found that racial prejudice toward underrepresented groups and perceived threat are two independent sources of attitudes toward immigrants. Despite some methodological limitations, if we use the ESS to examine the evolution of this phenomenon in Europe, it is noticeable that the increase in anti-immigration sentiment that characterized Europe in the 1980s and the first half of the 1990s has not persisted in the first years of the 21st century (Meuleman et al., 2009). There is mixed evidence on the contribution of the extreme right wing in Europe to anti-immigration attitudes (Mudde, 2013); even so, in a longitudinal study of the first six rounds of the ESS (2002–2012), Bohman and Hjerm (2016) found that neither the proliferation of immigrants nor their greater representation contributed to opposition toward immigration over time, since this response appears to be part of a more complex process. Nevertheless, the impact on public opinion and its influence on intergroup attitudes should not be underestimated since as Koopmans and Olzak (2004) found, media attention, political debate and reactions to right-wing violence may provide discursive opportunities for their dissemination. As an example of that, a critical social events such as the ‘refugee crisis’ in Germany might trigger the perceptions of threat toward out-groups and

occasionally result in bias crime (Piatkowska, Hövermann, & Yang, 2020), which highlights the relevance of social integration and the role of social climate as well as its variability across regions (Piatkowska & Hövermann, 2019).

In this regard, analyzing the seventh round (2014) of the ESS, Gorodzeisky and Semyonov (2020) found that misperceptions of the size of immigrant population are a better predictor of opposition to immigration than its actual size. Also analyzing the seventh round of the ESS (2014), Meuleman et al. (2020) identified a considerable association between ethnic threat, at both individual and national level, and group relative deprivation, suggesting that the latter can shape threat perceptions and also opposition to migration (Davidov et al., 2020). Even so, as the authors point out, the direction of this relationship cannot be assessed with the data currently available. Furthermore, as in other comparative surveys, it is difficult to know whether the measures were understood similarly across countries; this underlines the importance of assessing measurement equivalence (Davidov et al., 2015).

Recent research in the United States found that the worsened economic conditions in times of recession were associated with altered perceptions of race, more negative attitudes toward Black people and a greater probability that White people would support attitudes that rationalize inequality (Anderson et al., 2020; Bianchi et al., 2018; Krosch & Amodio, 2014), an association that may be moderated by the psychological perception of scarcity and internal motivation to respond without prejudices (Krosch et al., 2017). Despite this emerging evidence, the relationship between recession and racial animus is still an unresolved question and more research is needed.

### ***Structural features and social ecology***

In connection to the above, from an economic structural perspective, the theoretical framework of relative deprivation and frustration–aggression supported by Hovland and Sears’s (1940) classic study was one of the first explanations of hate crimes (Levin & McDevitt, 1993), in which underrepresented groups are perceived as responsible for the tensions between culturally prescribed objectives and the means available to achieve them, which in times of stagnation or recession can even lead to selective aggression toward underrepresented group members. However, although few studies have examined it, the link between economic conditions and bias-motivated violence has been found to be weak or

nonexistent (e.g., D. P. Green et al., 1998; Van Kesteren, 2016). Similarly, following D. P. Green et al.'s (1998) study, Mills (2020) showed that demographic changes do not necessarily lead to bias-motivated violence and stressed the persistent effect of segregation and the importance of the anti-integrationist violence at the community level. The conclusion is that cultural influence is more relevant than the economic threat.

Otherwise, from a sociostructure perspective, and according to B. Perry's (2001) "doing difference" theory, in the same way in which Blalock (1967) recognized the threat of power as a decisive factor for discrimination, bias crimes are a mechanism of power and intimidation which are usually directed against previously stigmatized and marginalized groups, reaffirming the hierarchies that characterize the social order and trying to recreate the threatened hegemony (perceived or real) of the perpetrator in-group against the subordinate identity of the victim's group. These theories show how subordination is maintained within the social structures of work, power, sexuality, and culture and explain how sociocultural structures and socioeconomic tensions favor the development of prejudice and discrimination on which hate crimes are based. They also underline the relevance of labeling and identity processes and how "different" individuals are perceived by some members of the majority group as a potential threat. This approach also highlights the symbolic nature of bias-motivated offending. The message is transmitted to the underrepresented group, and behind the behavior lies unequal stereotypes and ideologies of difference that, ultimately, try to maintain the hegemonic structures. In relation to this, social privilege and related constructs provide a detailed explanation for comprehending and deconstructing the nuances of the relationship between bias-motivated violence and oppression, marginalization, inequality, and their maintenance (Sugarman et al., 2018).

From the macrostructural opportunity theory (Blau, 1977), research has provided mixed evidence regarding a relationship between intergroup violence and social structure. In the last 2 decades, few studies have examined this relationship. Recently, Stacey (2019) analyzed a large sample of counties across the United States and also found mixed evidence for a macrostructural influence; heterogeneity and segregation have some effects on intergroup violence, while racial inequality is mostly a nonsignificant predictor. For a better understanding of the social mechanisms involved, we need to analyze, at an ecological level, the influence of community. As a result, much of the latest research focuses on

neighborhoods. Bias-motivated violence is strongly correlated with social disorganization and differs from other types of offense because it can be displayed as a way of defending neighborhoods against out-group migrants (Gladfelter et al., 2017; Grattet, 2009). A central aspect is whether informal social control in White neighborhoods is eroded in the face of attenuated culture or due to the heterogeneity of cultural frameworks or a combination of the two (Kubrin & Weitzer, 2003; Warner, 2003). Following this line of thought, McNeeley and Overstreet (2018) found that many of the characteristics increasing the general risk of victimization are also related to hate crime victimization. The authors also found modest support for the influence of neighborhood context since hate victimization was lower in communities with high collective efficacy. However, the cultural context can moderate these effects despite the U.S. findings, where most of the ecological research has been carried out and where ethnic/racial segregation is more pronounced than in other regions. In this sense, regarding racial relations and segregation and their relationship with ecological factors, Benier et al. (2016) did not find any association between residential mobility or increases in immigration and hate crime victimization in Australia, although they did confirm that non-English-speaking residents had a higher risk of suffering hate crime incidents.

### *Presence of multiple perpetrators*

Here, we analyze hate group violence as a particular and extreme form of bias offense. Individual and psychosocial features are key dimensions in bias-motivated violence, including intragroup emotion convergence and its mechanisms, processes, and effects (Parkinson, 2020). As a general finding, group crimes are associated with a greater degree of violence than those committed by a single perpetrator (Conway & McCord, 2002; Lantz, 2021; McGloin & Piquero, 2009). Lantz and Kim (2019) showed that incidents involving prejudice and co-offense are especially violent, but this association can be partially attributed to the co-offenders' influence. However, studies of the relationship between right-wing hate groups, and the probability of bias-motivated violence remain scarce and the evidence is mixed. Mulholland (2013) found a positive association between hate groups and hate crimes in the United States, although he rejected the hypothesis that group presence is symptomatic of the overall level of bias-based violence. In contrast, Adamczyk et al. (2014) found that the per capita number of hate groups in U.S. counties is a robust indicator of the probability of far-right ideologically motivated violence. However, Ryan and Leeson (2011) found little

evidence that hate groups are associated with hate crimes in the United States; nonetheless, they found evidence that economic difficulties may be related to hate crimes. More recently, Jendryke and McClure (2019) conducted a spatial analysis and found that areas with high hate group activity are not necessarily areas with a high number of hate crimes. Although they found an association between hate crimes and hate groups in 39.5% of the localized geographic areas, in 60% of cases, there was no such spatial correlation. In fact, it seems that population distribution alone does not explain this phenomenon, and so, more research is needed in this field.

Gruenewald and Allison (2018) analyzed whether bias homicides vary according to the objective target, and their results showed different patterns. Race–ethnicity homicides seemed to be more likely to be perpetrated by small groups of White men from the far right. This predatory characteristic was also observed in homeless victims. In contrast, anti-SGM homicides were more likely to be committed by a known person. Compared to common homicides in the United States, Klein and Allison (2018) found that race–ethnicity bias homicides can be considered a specific form of group violence toward underrepresented groups. Furthermore, Mills et al. (2017) showed a positive association between some aspects of terrorism and the most serious forms of hate crime; despite their important differences, the authors concluded that they may be more similar to “close cousins” than “distant relatives.” These similarities may also exist in honor killings and domestic violence homicides (Hayes et al., 2018). In any case, to avoid spurious relationships, this topic requires a thorough and comparative analysis beyond the U.S. framework.

### **Criminological theories account for bias-motivated violence**

Given that criminology studies the phenomenon of violence from an interdisciplinary approach, it provides an accessible framework for seeking to understand the nature of bias-motivated violence. Using three criminological theories, Walters (2011) suggested a theoretical model for hate crime causation. He proposed an intersection between strain theories (Agnew, 1992) and B. Perry’s (2001) structured action theory of “doing difference,” which are interconnected through the fear of difference. Nevertheless, this approach does not explain why only some individuals, even those sharing the same sociostructural and socioeconomic factors, do not develop this type of deviant behavior. To mitigate this macro–

micro deficit, Walters (2011) turned to the self-control theory (Gottfredson & Hirschi, 1990). This theory suggests that there are different degrees of proclivity to criminal involvement such that low self-control increases the chances of criminal behavior.

To gain a better understanding of the impact of self-control in a specific context, situational action theory analyzes self-control as a factor in the process of choice (Wikström, 2006). This theory provides a specific explanation for the environmental influences on an individuals' ability to exercise self-control in situations in which they deliberate whether to participate or not in a criminal behavior (Wikström & Treiber, 2007). Thus, self-control is understood as the successful inhibition of perceived alternatives of action or the interruption of the course of an action that conflicts with the morality of the individual. Overall, situational action theory and its moral background seem to offer a good explanation for the perpetration of discriminatory violence in specific cultural contexts, given the key role of stereotypes, prejudice, and attitudes at cognitive, emotional, and behavioral levels.

### **Discussion and conclusions**

This review focused only on the Western studies since this topic still suffers from a clear ethnocentrism that has Westernized the entire process, burying a universal perspective of discrimination and bias-motivated violence. For this reason, more comparative and non-Western research is needed. Regardless, as White (2002) warned, a critical evaluation of the applied definitions and an in-depth analysis of the data collection methods used in relation to hate crime are necessary. We also need to overcome the idea that the proliferation of hate laws will really solve the problem because the asymmetry between laws and policies hinders a comprehensive understanding of this phenomenon and precludes more accurate comparisons about bias-motivated violence.

Similarly, the normative definitions of hate crime give the wrong impression of a hate crime incident that takes for granted a non-relationship between the victim and perpetrator. Therefore, it is likely to limit the detection of crimes in which the victim and perpetrator know each other prior to the incident. Furthermore, the dominant hate crime categorization often ignores multiple motivations and is inaccurate when bias is not the main motivational element; it also presents persistent difficulties in making a clear differentiation between categories because they are not mutually exclusive. This is a consequence of using



sociodemographic characteristics based on social constructs such as race or ethnicity as “social address” labels (Bronfenbrenner, 1986), instead of giving them meaning and content, which defines the crime rather than its explanation. This highlights the need to use nonessentialist markers because essentialist markers neglect important details underlying social, cultural, and historical asymmetries between groups, such as privilege, discrimination, and trauma (Hamby, 2015), and can contribute to the maintenance of epistemic violence (Held, 2020). All this underlines the need to adopt an intersectional perspective to better comprehend experiences of bias-based violence and to reflect on how to apply this perspective to identify intersecting prejudices, discrimination, and their particular consequences (Cho et al., 2013; Henne & Troshynski, 2013). This should help to identify and better understand bias-motivated violence and its effects, as well as to develop more effective interventions in prevention and treatment. Likewise, future research on the subject needs to pay more attention to biosocial studies (Ferguson & Beaver, 2009) and also seriously consider integrated approaches such as the victim–offender overlap (Berg & Mulford, 2020). Despite the methodological and theoretical problems, approaches of this kind have the potential to generate a more comprehensive understanding of bias-motivated violence and its underlying mechanisms. In conclusion, the background based on prejudice, identity, and attitudes makes bias-motivated violence a unique phenomenon where the interplay of individual, psychosocial, and ecological factors has an essential role. The effects of this type of violence on victims and communities are multiple and vary according to their specific characteristics; however, its severe psychological consequences have a strong effect on the likelihood of reporting.

### ***Key findings of the review***

- Despite the proliferation of hate laws and policies that, a priori, support the view that society is increasingly open and welcoming, victimization rates do not seem to have decreased and a significant number of unreported bias-motivated crimes persist.
- Bias-motivated violence shares characteristics with other types of offensive behaviors.

- Cultural influence is more relevant for bias-motivated violence than economic threat.
- In general, intergroup contact has positive effects on intergroup attitudes.
- Bias victimization experiences are related to negative physical, behavioral and mental health outcomes.
- Bias-motivated violence has heterogeneous and distinctive psychological consequences for the victims.
- Access to stress-relieving mechanisms mediates the relationship between identification with the stigmatized group and the psychological well-being of the victim.
- Bias-motivated violence across underrepresented groups is largely left unexplored.
- Population alone does not seem to explain the presence of hate groups.
- Multiculturalism interventions could reduce intergroup ethnic prejudice.

***Implications of the review for practice, policy, and research***

- Research and policies need to adopt an intersectional perspective that should guide practice.
- Bias-motivated violence needs more ecological research to determine the influence of the cultural and environment context.
- More research is needed on intergroup and gender differences among members of underrepresented groups, including possible distinctions within subgroups.
- The typical categorization of hate crimes often ignores multiple motivations and is inaccurate when prejudice or bias is not the main motivational element. Likewise, this implies persistent problems in distinguishing the categories because they are not mutually exclusive.
- Markers such as non-White or another race/ethnicity/ancestry should not be used in research because they usually combine qualitatively very different groups. This kind of heterogenic group label is based only on the fact that some participants do not conform to an independent group in quantitative terms, so they are placed in a generic one. In this way, the specific characteristics of each group are hidden within one generic group.

- The victim–offender overlap is mostly unexplored in bias-motivated violence. Given its potential for helping to develop a more integrated and comprehensive understanding of this type of violence, it should be considered seriously in future research.

## **5. Study 2. The role of adverse childhood experiences in suicide among sexual minority undergraduate students**

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## Abstract

This study explores the rates and odds of adverse childhood experiences (ACEs) and their relationship to suicide attempts in a sample of undergraduate students ( $n = 924$ , 71.6% women), comparing lesbian, gay and bisexual youth to their heterosexual counterparts. Using propensity score matching, we matched 231 sexual minority and 603 heterosexual participants at a ratio of 1:3, based on gender, age, socioeconomic status, and religious beliefs. Sexual minority participants reported a significantly higher ACE score ( $M = 2.70$  vs.  $1.85$ ;  $t(df) = 4.93(393)$ ;  $p < .001$ ;  $d = .391$ ) and higher rates of all but one type of ACEs. They also reported a higher prevalence and risk of suicide attempts (33.3% vs. 11.8% respectively,  $OR = 3.73$ ;  $p < .001$ ). In logistic regression analysis, sexual minority status, emotional abuse and neglect, bias attack, having a household member with mental health problems, bullying and cyberbullying were significantly associated with suicide attempts.

*Keywords:* suicide, mental health, sexual minority, LGB, victimization.

## Introduction

Annually, more than 700,000 people die by suicide, which is the fourth leading cause of death in youth aged between 15 and 29 years (WHO, 2021). Suicide is an extremely complex phenomenon, and we are still far from elucidating its etiology (Cha et al., 2018). Demographically, suicide is highly prevalent across SGMs. Their higher risk status is partially attributed to environmental factors and correlates, namely their higher rates of adversity in childhood and victimization throughout their lifetime than their heterosexual counterparts (Sahle et al., 2022; Williams et al., 2021). The differential exposure to adversity may be related to social and structural factors that increase the risk of adversity, such as violence based on heteronormativity, societal gender roles, and prejudice promoting violence against SM identity or indicators of such status (Liben & Bigler, 2002).

Western studies carried out with adults have found significant higher rates of ACEs, such as exposure to domestic violence, physical, emotional and sexual abuse, or household dysfunction, among SM participants than among their heterosexual counterparts (Andersen & Blosnich, 2013; Austin et al., 2016). Western studies analyzing the experiences of young people have found that lesbian, gay, bisexual, transgender, intersex or queer plus (LGBTQI+) people report higher exposure to ACEs than non-minority populations (Clements-Nolle et al., 2018; Craig et al., 2020). Using a cross-sectional cohort study, Hughes et al. (2022) have suggested that exposure to ACEs in the SM population may vary across generations. The meta-analytical review conducted by Friedman et al. (2011) found that SMs were 2.9 and 1.3 times more likely, respectively, to experience sexual abuse and parental physical abuse than their non-minority counterparts.

With regard to interpersonal violence by peers and schoolmates, meta-analytical studies have also shown higher rates of ACEs. Katz-Wise and Hyde (2012) found that people identifying as homosexual or bisexual reported rates of 33% for school victimization and 44% for relational victimization and were, on average, 1.7 times more likely than their heterosexual peers to be victimized in the school context (Friedman et al. al., 2011). More recently, a meta-analysis of 55 studies conducted by Myers et al. (2020) found a moderate overall mean effect size ( $r = .155$ ) in the relationship between LGBTQI+ identification and school victimization.

Meta-analyses suggest that SMs are more likely to report higher rates of suicidal ideation and suicide attempts than heterosexuals (Di Giacomo et al., 2018; King et al., 2008; Marshal et al., 2011). Gambadauro et al. (2020) found that SM youth from six different countries in Europe had significantly higher suicidal ideation scores than their heterosexual peers, as well as a higher prevalence of serious suicidal ideation and previous suicide attempts. Even when accounting for the difference between estimates drawn from population studies and those obtained from LGBTQI+ community samples in North America and Western Europe studies, SM youth show a higher lifetime prevalence of suicide attempts than heterosexual individuals (Hottes et al., 2016).

Longitudinal prospective studies assessing the consequences of ACEs in later life have found that they predict significant health consequences linked to maladaptive behavior, morbidity, and mortality (Hughes et al., 2017). ACEs also increase the risk of mental disorders and negative health conditions such as cancer and cardiovascular disease over the life course (Bellis et al., 2019; Petruccelli et al., 2019). Among these health risks, the review of Sahle et al. (2022) has identified that suicidality is consistently associated with ACEs in retrospectively reports. Prospectively, few studies have analyzed the association between suicidality and ACEs, but they do confirm that there is a link. Thompson and Kingree (2022) have found that physical, sexual and emotional abuse together with parental incarceration and family history of suicide attempts, are predictors of seriously considering suicide.

### **The current study**

Studies to date have been conducted mainly in the United States and Canada. Thus, there is a need to examine the range of ACEs faced by SMs in other regions and determine their association with suicide. To this end, the current study pursues three main objectives. First, it seeks to comprehensively explore the rates of ACEs at the individual, family, peer and community level in a sample of lesbian, gay, and bisexual youth. Second, it seeks to compare the ACE rates and odds between sexual minority and heterosexual participants. Third, among all categories of ACEs, it seeks to examine which ones are associated with suicide attempts.

## Methods

### *Participants and procedure*

The sample for this cross-sectional self-report retrospective study, which was carried out between 2019 and 2020, was drawn from the student body of the University of Barcelona (UB). Ethical approval for the research was obtained from the UB's Bioethics Commission (IRB 00003099). To conduct the study, we contacted the undergraduate studies coordinators in all bachelor's degrees to obtain their consent to administer the survey. From a total of seventy-three, forty-eight agreed to participate. Then, we randomly selected one group per participating bachelor's degree and administered the survey in the classroom. All students voluntarily agreed to participate. We collected a non-probabilistic sample of 1,291 individuals, all over the age of 18. Participants who did not complete at least 60% of the survey were removed ( $n = 273$ ). To reach a balanced distribution between SMs (exposed group) and heterosexuals (unexposed group), we applied a 1:3 matching for propensity score (PSM, Rosenbaum & Rubin, 1983) to 1,018 cases. This method calculates the probability of each participant belonging to the exposed or unexposed group according to relevant variables. We used the nearest neighbor method through the package MatchIt in R (Ho et al., 2011) and matched on gender, age, socioeconomic status (SES) and religious beliefs. Then, PSM used the probability to pair each SM individual with three heterosexual subjects of similar characteristics based on the selected variables. Once applied, any heterosexuals who could not be matched ( $n = 70$ ) or who had missing data in the selected variables ( $n = 24$ ) were excluded. Thus, the final sample consisted of 924 undergraduate students ( $M = 20.10$  years old;  $SD = 3.34$ ).

All participants were cisgender, 71.6% were women and 28.4% men. No trans, non-conformity, or non-binary identities were recorded. A quarter of the participants ( $n = 231$ ) identified as non-heterosexuals (i.e., lesbian, gay, bisexual, asexual, and questioning). Thus, the SM group comprised individuals who identified as non-straight (25%). Participants' sexual orientation was heterosexual ( $n = 693$ , 70.4% women), homosexual ( $n = 47$ , 51.1% women), bisexual ( $n = 171$ , 88% women), asexual ( $n = 3$ , 66.7% women), and questioning ( $n = 10$ , all women). Table 3 compares the sociodemographic characteristics of the two groups (straight and SM).



**Table 3.** Participants' sociodemographic features by sexual orientation.

Variables	%Total	%Hetero ( <i>n</i> = 693)	%Sexual minority ( <i>n</i> = 231)	Statistics
<b>Gender</b>				$X^2(df) = 8.96(1), p = .003; \phi_c = .099$
Male	250 (27.1)	205 (29.6)	45 (19.5)	
Women	674 (72.9)	488 (70.4)	186 (80.5)	
<b>Age <i>M</i> (<i>SD</i>)</b>	19,85 (3.34)	19.9 (3.44)	19.6 (2,99)	$U = 73342.00, p = .047; r_{rb} = .084$
<b>Origin</b>				$X^2(df) = 1.23(3), p = 0.747$
Europe	853 (92.3)	638 (92.1)	215 (93.1)	
Asia	16 (1.7)	11 (1.6)	5 (2.20)	
Africa	7 (0.8)	6 (0.9)	1 (0.4)	
America	48 (5.2)	38 (5.5)	10 (4.3)	
<b>Religious</b>				$X^2(df) = 9.43(4), p = .051; \phi_c = .101$
Christian	105 (11.4)	88 (12,7)	17 (7.4)	
Islam	7 (0.8)	6 (0.9)	1 (0.4)	
Hindu	2 (0.2)	1 (0.1)	1 (0.1)	
Buddhist	2 (0.2)	2 (0.3)	0 (0.0)	
No	808 (87.4)	596 (86.0)	212 (91.8)	
<b>SES</b>				$X^2(df) = 10.80(2), p = .005; \phi_c = .108$
Low	337 (36.5)	232 (33.5)	105 (45.5)	
High	116 (12.5)	90 (13.0)	26 (11.2)	
Low	337 (36.5)	232 (33.5)	105 (45.5)	

*Note.* Sexual minority vs heterosexual.

$X^2(df)$  = Chi-squared(degrees of freedom);  $\phi$  = Cramér's V;  $U$  = Mann-Whitney  $U$ ;  $r_{rb}$  = rank-biserial correlation.

### ***Measures***

We designed a self-administered survey based on the ACE framework. It has three sections and is based on the Adverse Childhood Experiences International Questionnaire (ACE-IQ; WHO, 2017a), the Family Health History questionnaire (Felitti et al., 1998), and previous ACE studies (Bellis et al., 2014; Ford et al., 2016). We analyzed the ACEs following the guidance for ACE-IQ in its frequency version (WHO, 2017b).

The first section, ‘general personal information’ contains sociodemographic questions on gender identity, sexual orientation, age, region of origin, religious beliefs and SES. To capture participants’ gender identity and sexual orientation, we included three self-report questions as recommended by the Williams Institute’s Gender Identity in US Surveillance Group (GenIUSS, 2014).

The second section, ‘health questions’, covers health behaviors and outcomes. We used one item to measure lifetime suicide attempt, ‘have you ever attempted to commit suicide?’, possible answers were 1 (never), 2 (once), 3 (a few times), and 4 (many times). For the analysis, we created a suicide attempt dummy variable. Responses of one or more suicide attempts were considered endorsements. Reliability for health section was acceptable ( $\alpha = 0.81$ ).

The third section, ‘ACEs’, is a 29-item measure that covers 13 domains of adverse events before the age of 18. Household member with substance use (1 item); household member with mental health problems (1 item); incarcerated household member (1 item); parent/s dead, separated or divorced (2 items); household member treated violently (3 items); emotional abuse (2 items); physical abuse (2 items); contact sexual abuse (4 items); emotional neglect (2 items); physical neglect (3 items); bullying (1-item); community violence (3 items); and Collective violence (4 items). To achieve a more comprehensive view of adversity, we added two additional domains: cyber-bullying (1 item) and bias attack (1 item). The first was taken from the *Juvenile Online Victimization Questionnaire* (JOV-Q, Montiel & Carbonell, 2012), and the second from the *Juvenile Victimization Questionnaire* (Pereda et al., 2018). We thus provide an expanded ACE score over 15 domains, rather than the 13 of the original ACE-IQ. Cronbach’s alpha for this study was acceptable ( $\alpha = 0.76$ ).

### ***Analytical strategy***

Participants were classified into two groups, heterosexual and SM, depending on the endorsement of sexual orientation and identity items. First, we examined the rates of ACEs comparing SMs and heterosexual participants. To test the extent of the 15 ACE domains across the sample and the differences between the two groups, descriptive and bivariate analyses were run. We compared the mean ACE score across the SM and heterosexual groups through Welch’s *t* test (*t*) and Cohen’s *d* (*d*) for effect size. The lifetime rate of each

ACE between heterosexuals and SMs was compared using Chi-square ( $\chi^2$ ) and odds-ratio (*OR*). After testing the preliminary bivariate analyses, we ran various binomial logistic regressions to test the relative contribution of SM status, as well as each of the 15 ACE categories, to suicide attempts. We used hierarchical model building to add independent variables in blocks which allowed us to assess whether the SM status estimate changed both separately and simultaneously, as well as to test the effect of each ACE on suicide attempts. The models were selected based on the parsimony and best fit for the data using the *car* (Fox & Weisberg, 2019) and *lme4* (Bates et al., 2015) packages. Multicollinearity and Tolerance was assessed through variance inflation factors (VIF) showing that the criteria to rule them out were met. All other assumptions were visually inspected and confirmed. We set the *p*-value at 5%. We conducted the analysis with the R program version 4.2.2 (R Core Team, 2023).

## Results

### *Adverse childhood events*

The distribution of mean ACE scores comparing SMs and heterosexual participants by gender was as follows: heterosexual men ( $M = 1.87$ ,  $SD = 2.05$ ), heterosexual women ( $M = 1.84$ ,  $SD = 1.94$ ), SM men ( $M = 2.67$ ,  $SD = 2.14$ ), and SM women ( $M = 2.71$ ,  $SD = 2.42$ ). When we analyzed differences in the ACEs between the two overarching groups, SMs showed significantly higher scores than their heterosexual counterparts (heterosexual group [ $M = 1.85$ ,  $SD = 1.97$ ]; SM group [ $M = 2.70$ ,  $SD = 2.36$ ];  $t(df) = 4.93(393)$ ;  $p < .001$ ;  $d = .391$ ). By number of ACEs, the SM group rates were 16.9% for 0 ACEs, 20.3% for 1 ACE, 18.2% for 2 ACEs, 14% for 3 ACEs and 30.7% for 4 or more ACEs, while the heterosexual group rates were 30.3% for 0 ACEs, 24% for 1 ACE, 16.9% for 2 ACEs, 11.3% for 3 ACEs and 17.6% for 4 or more ACEs.

The lifetime rates of each ACE and the *ORs* appear in Table 4. As the table shows, the rates for SMs ranged from 0.9% (for community violence) to 25% (for bullying). For all types of ACEs, except for community violence, the rate was higher in the SM group than in the heterosexual group. At the individual level, the risk for emotional abuse, sexual abuse, emotional neglect and bias attack were significantly higher for SMs than for heterosexuals. At the family level, the risk of being exposed to a household member with mental health

problems or a household member treated violently was significantly higher among SMs. No differences were found between the groups across the remaining forms of family victimization. At the peer level, the risk for bullying victimization was significantly higher among SMs, but there were no differences in cyberbullying victimization. Nor were differences found between groups at the community level.

**Table 4.** Lifetime rates of ACEs.

Level	ACE	Lifetime rates			OR (CI 95%; <i>p</i> -value)
		Total	Hetero	Sexual minority	
<i>Individual</i>	Emotional abuse	12%	9%	20%	2.47 (1.64–3.72); <i>p</i> < .001
	Physical abuse	13%	12%	16%	1.33 (0.88–2.02); <i>p</i> = .181
	Sexual abuse	21%	18%	31%	2.10 (1.49–2.95); <i>p</i> < .001
	Emotional neglect	19%	17%	25%	1.64 (1.15–2.34); <i>p</i> = .006
	Physical neglect	3%	3%	4%	1.35 (0.58–3.14); <i>p</i> = .491
	Bias attack	8%	6%	14%	2.58 (1.59–4.19); <i>p</i> < .001
<i>Family</i>	Household member with substance use	17%	16%	19%	1.17 (0.80–1.73); <i>p</i> = .417
	Household member w/ mental health problems	29%	26%	36%	1.60 (1.17–2.20); <i>p</i> = .003
	Incarcerated household member	2%	2%	3%	1.41 (0.57–3.51); <i>p</i> = .455
	Parent/s dead, separated or divorced	30%	29%	32%	1.10 (0.80–1.53); <i>p</i> = .534
	Household member treated violently	17%	15%	22%	1.58 (1.09–2.39); <i>p</i> = .016
<i>Peer</i>	Bullying	25%	21%	36%	2.07 (1.49–2.86); <i>p</i> < .001
	Cyberbullying	4%	3%	5%	1.34 (0.65–2.76); <i>p</i> = .432
<i>Community</i>	Community violence	0.9%	0.9%	0.9%	1.00 (0.20–4.99); <i>p</i> = 1.000
	Collective violence	7%	6%	9%	1.47 (0.84–2.52); <i>p</i> = .172

*Note.* Sexual minority vs heterosexual

### ***Suicide attempt among sexual minorities***

We examined whether the rate of suicide attempts was higher among SMs. SMs reported a significantly higher rate and likelihood of suicide attempts. Specifically, attempted suicide was almost three times higher in SMs than in heterosexuals (33.3% vs. 11.8% respectively, *OR* = 3.73 [2.61–5.33]; *p* < .001).

To examine the relationship between SM status, ACE categories and suicide attempts, we conducted a series of logistic regressions using hierarchical model building. First, we ran an initial model in which SM status was the only independent variable explaining suicide attempts. Then, we estimated the effect of each ACE as an independent variable explaining suicide attempts. For parsimony, we kept only the significant variables in the final regression model that appears in Table 5. As shown, the size of *ORs* for SM status fell from model 1 to the best model when ACEs were included in the regression and the final solution was selected. Nonetheless, being a SM (*OR* = 2.98; *p* < .001) was still significantly related to attempted suicide. Five ACEs were also significantly associated: emotional abuse (*OR* = 2.30; *p* < .001), emotional neglect (*OR* = 1.74; *p* = .0014), bias attack (*OR* = 1.83; *p* = .043), household member with mental health problems (*OR* = 2.02; *p* < .001), bullying (*OR* = 1.78; *p* = .007) and cyberbullying (*OR* = 2.69; *p* = .013).

**Table 5.** Logistic regression analysis examining the influence of sexual minority status and ACEs on suicide attempts.

Predictors	OR (CI 95%)	<i>p</i>
<b>Suicidal attempt</b>		
Model 1 (R <sup>2</sup> CS = .053; R <sup>2</sup> N = .088; $\chi^2(df) = 50.6(1)$ ; <i>p</i> < .001)		
Sexual orientation <sup>a</sup>	3.73 (2.61–5.33)	< .001
Best model (R <sup>2</sup> CS = .136; R <sup>2</sup> N = .227; $\chi^2(df) = 135.3(7)$ ; <i>p</i> < .001)		
Sexual orientation <sup>a</sup>	2.98 (2.03–4.34)	< .001
Emotional abuse	2.30 (1.40–3.78)	< .001
Emotional neglect	1.74 (1.12–2.71)	.0014
Bias attack	1.83 (1.02–3.29)	.043
HH mem. w/ MH problems	2.02 (1.38–2.97)	< .001
Bullying	1.78 (1.17–2.71)	< .001
Cyberbullying	2.69 (1.23–5.90)	.013

*Note.* R<sup>2</sup>CS = Cox-Snell R<sup>2</sup>; R<sup>2</sup>N = Nagelkerke R<sup>2</sup>;  $\chi^2(df) = \chi^2(\text{degrees of freedom})$

<sup>a</sup> Sexual minority = 1; Heterosexual = 0

## Discussion

Suicide attempt is associated with a myriad of risk factors and correlates (Cha et al., 2018). We investigate suicide attempts and their association with ACEs, and find that the importance of ACEs in individuals' suicide outcomes is undeniable (Hughes et al., 2017). We find significantly higher rates of ACEs and substantially increased suicide attempts in young adults from SMs. In addition to experiencing stigma in multiple life domains, which is a fundamental driver of health inequalities (Hatzenbuehler et al., 2013; Pachankis et al., 2021).

The broad set of analyzed ACEs, which has been expanded to encompass bias attack and cyberbullying, includes adversities resulting from a minority position as well as general forms of victimization. Among the different forms of interpersonal victimization, those based on stereotypes, prejudice, negative attitudes, hostility, or hatred seem to be common in minority groups; and are characterized by being qualitatively different from other types of violence (Díaz-Faes & Pereda, 2022). This type of bias-based violence is also embedded in peer victimization experiences of SM youth, such as bullying grounded on heteronormativity, homophobia, biphobia, and transphobia. Unsafe and hostile school environments may trigger or exacerbate health problems in SMs (Rivers, 2017). Overall, bias victimization contributes to the maintenance and proliferation of stigma against SMs (Herek et al., 2007).

ACEs occur against the backdrop of structural inequalities and health disparities owing to the persistent stigma directed at minorities, as the minority stress model explains (Meyer, 2003; Meyer & Frost, 2013; Hsieh et al., 2021). At the same time, they interact with the person's individual, interpersonal, and ingroup position. Stigma is contingent on access to social, economic, and political power. Link and Phelan's (2001) comprehensive conceptualization of stigma helps to understand how the converging elements of stereotyping, labeling, exclusion, status loss, and discrimination act together in a power situation, allowing stigma to develop. Thus, as the review by Hatzenbuehler and Pachankis (2016) explain, stigma and minority stress can impair health through a range of mechanisms such as vigilance, rumination, loneliness and physiologic functioning related to the stress response. The performance of these mechanisms helps to understand the underlying process

that explains and leads to an increased risk of mental and behavioral problems such as suicide among SGM populations.

The robust differences found between the SM and heterosexual groups in most forms of victimization corroborate the results of meta-analytical reviews (Fedewa & Ahn, 2011; Friedman et al., 2011; Katz-Wise & Hyde, 2012; Myers et al., 2020; Toomey & Russell, 2016) suggesting that SMs experience more victimization of all kinds. Additionally, adverse experiences may go beyond the victim and have an indirect impact on members of the community by promoting intergroup threat and victim guilt (Paterson et al., 2019).

In line with previous studies (McLaughlin et al., 2012), our results show that SM status and some ACEs are associated with suicide attempts. We identified that having a household member with mental health problems, emotional abuse, emotional neglect, bias attack, bullying and cyberbullying are associated with suicide attempts. A recent review (Wang et al., 2023) addressing the factors associated with suicide attempts among SM youth showed that youth who reported higher levels of family rejection were more likely to report having attempted suicide. Concerning victimization, the most important factor was bullying, although physical and sexual abuse were also risk factors to consider. Sexual abuse was not significantly associated with suicide attempts in our study. The association between sexual abuse in early life and suicide has been previously supported (Ng et al., 2018). Nevertheless, child sexual abuse is a general and non-specific risk factor for suicide (Maniglio, 2011). It is a complex process involving multiple variables, such as family dysfunction, other forms of maltreatment and some mental disorders, that may either act independently or interact with child sexual abuse to increase the risk of suicide in abuse victims (O'Brien & Sher, 2013). This intricate interaction of variables deserves further attention in SM studies but is not addressed in the present study.

The study has several limitations. First, the SM group was identified through the sexual orientation of the participants, and mostly comprised bisexual women. Only cisgender participants were identified. The gender identity question did not yield any individuals self-identifying as transgender, gender non-conforming or non-binary. There may be several reasons for this, among them the complexity of the issue of identity, the lack of diversity in the college sample, the use of non-probabilistic sample or a reporting bias (Galupo et al.,

2015). Second, the study design implies that the results are neither generalizable nor representative. Third, retrospective self-reports are subject to response or recall bias and we cannot distinguish the temporal order of the variables. Fourth, we measured suicide attempts through a single item, so we could not assess its reliability and validity. Fifth, owing to the composition of the SM sample, we evaluated them as a whole group, which does not allow us to account for any ingroup differences that may exist. Despite the limitations, however, the present study lays the groundwork and adds cultural context for future research using prospective designs and controlled matched groups of non-gender and non-SM groups to explore causal inference. Future studies should also focus on the experiences of resilience that SMs deploy to mitigate or cope with the effects of ACEs. Resilience factors such as social, family, and institutional support, empowerment of SMs and individual acceptance and self-affirmation may have differential characteristics in LGBTQI+ populations and should be examined in greater depth.

## **Conclusion**

In conclusion, we have identified an association between the detrimental effects of ACEs on suicide attempts in SM youth and confirmed previous findings in a different population and setting. We have found that SM status is still the variable most significantly associated with suicide attempts. Given the increased risk of suicidality and the high rates of childhood adversity experienced by SM populations, there is a clear need to design early and effective interventions and to eradicate prejudices and discrimination against them.



## **6. Study 3. Experiences of bias victimization among people with intellectual disabilities**

Díaz-Faes, D. A., Codina, M., & Pereda, N. (2023). Experiences of bias victimization among people with intellectual disabilities. *Journal of Interpersonal Violence*, 38(15–16), 9423–9437. <https://doi.org/10.1177/08862605231165772>

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## Abstract

Research has drawn attention to the stigma and the high rates of victimization among people with intellectual disabilities, and also to an overlap between bias and non-bias victimization. However, studies of bias events or hate crime involving persons with ID are scarce. Using a self-report measure, we analyze bias victimization in a sample of 260 adults diagnosed with ID (age  $M = 41.7$ ;  $SD = 12.0$ ; 59.2% men), of whom 92 experienced bias victimization (age  $M = 41.2$ ,  $SD = 11.9$ ; 54.3 % men), and compare the number of different types of victimization and the poly-victimization status between bias and non-bias victims. We also examined the following features: the victim, offender(s), victim-offender relationship, and location. Results show that bias victims experience a higher number of other types of victimization than non-bias victims ( $M = 7.74$  and  $4.96$  respectively;  $p < .001$ ,  $r_{rb} = .37$ ,  $\xi = .42$ ) and are four times more likely to be poly-victims than non-bias victims ( $OR = 4.37$ ;  $p < .001$ ). Most of the victims experienced a number of hate victimization episodes (89.1%;  $n = 82$ ), and more than a quarter were injured (27.2%,  $n = 25$ ) as a result of the victimization. All the bias victimizations by strangers were carried out in public places, as were most of the bias victimizations by acquaintances. Schoolmates and work colleagues perpetrated attacks at school and in the workplace respectively. More than half of the victims, 63% ( $n = 58$ ), spoke of the experience with someone, but only one reported it to the authorities. The study provides a valuable descriptive and bivariate analysis of bias victimization of people with ID. The findings will help to understand bias-motivated violence against this population, highlighting the need for targeted and effective interventions.

*Keywords:* intellectual disability, hate crime, bias victimization, bias crime, mate crime, poly-victimization, learning disabilities

## Introduction

The rates and contexts of bias victimization or hate crimes targeting people with ID – also known as learning disabilities in the UK – have not been assessed in depth. Previous reports have suggested that the bias victimization of people with ID may be underreported compared with other forms (Macdonald et al., 2017). During the last two decades, official records and victimization surveys in Western countries have produced statistics that reflect its occurrence but are far from elucidating its extent. The US National Crime Victimization Survey (NCVS) 2019 report recorded 25,238 violent and 16,276 property hate crime victimizations against persons with disabilities, with the corresponding figures for the whole series between 2005 and 2019 standing at 117,930 and 54,300 respectively (Kena & Thompson, 2021). However, the study did not disaggregate the data across types of disability. US law enforcement data reported only 116 offenses classified as anti-mental disability in 2019, and the accumulated count for the 2010-2019 series was 620 (Smith, 2021). In Europe, only a few countries collect data on hate crimes against people with disabilities, and the procedures and recordings are heterogeneous (FRA, 2018). For instance, official data from England and Wales reported 14,242 non-disaggregated incidents in the 2021-2022 financial year, (Home Office, 2022), whereas Scotland reported 666 crimes aggravated by disability prejudice in 2021-2022 (Crown Office & Procurator Fiscal Service, 2022), and Northern Ireland 123 in 2021-22 (Police Service of Northern Ireland, 2022). Spanish law enforcement data recorded 28 incidents hate crimes against people with disabilities in 2021 (Ministry of Home Affairs, 2022).

To date, very few quantitative studies on the subject have been conducted. The most comprehensive study so far, the UK's Life Opportunities Survey, used a representative sample in which 26% were people with disabilities. A study using the first wave of this survey (2009-2010) showed that people with disabilities were significantly more likely to experience bias victimization than their non-disabled counterparts (Emerson & Roulstone, 2014). According to that study the last 12-month rate of self-reported hate crime victimization motivated by disability was 7%. The rates varied across type of disability, ranging from 1% to 2% for physical and sensory to 7% for cognitive. However, only 1.2%

of the sample had intellectual or learning disabilities ( $n = 309$ ), a fact that made it difficult to draw conclusions regarding this group.

Victims of bias-motivated violence experience detrimental effects on their health and well-being, such as psychological distress, depression, anxiety, fear, post-traumatic stress disorder, feelings of vulnerability, negative behavioral health outcomes and an increased concern for crime and safety (Díaz-Faes & Pereda, 2022). The life experience of people with ID is subject to the influence of cultural and social drivers of poorer health, such as oppression, stigma, ableism, and implicit negative attitudes (Ditchman et al., 2016). The most obvious issue is the effect of the ID label itself, which tends to be socially perceived as a pathological attribute (Nario-Redmond et al., 2019; Snipstad, 2022) and is strongly associated with negative prejudices that often revolve around infantilization, inferiority, incapacity, dehumanization, objectification, and hostility (Meer & Combrinck, 2015; Nario-Redmond et al., 2019). These social phenomena are often neglected or denied, despite the disempowerment and discriminatory treatment that they may cause (Dunn, 2019; Hollomotz, 2013; Sherry & Neller, 2016).

Existing qualitative studies have disentangled and elucidated how targeted violence affects the health and well-being of people with ID (Wiseman & Watson, 2022), and have helped to understand their experience of discrimination and spatial exclusion (Hall & Bates, 2019). That is to say, they have shown how control and spatial domination dynamics have been established, promoting marginalization and preventing persons with disabilities from occupying spaces in particular environments (e.g., physical and cultural barriers, or the lack of institutional knowledge and support).

Despite these studies, people with ID are usually conceived quite narrowly through the construct of intellectual disability; the dominant conceptions of disability are notably essentialist and simplistic. However, this population is a highly heterogeneous group in terms of their etiology, genotype, and phenotype, which are not reducible to simply diagnostic criteria (for a review of developmental perspectives of ID, see Burack et al., 2021). Current perspectives reflect a more nuanced understanding of ID which acknowledges its intrinsic complexity.

Under the hate crime classification the intersectionality of bias-motivated violence tends to be overlooked due to the focus on criminality and the individual or hierarchical distinction between categories, which means that incidents are classified only under specific headings (Chakraborti & Garland, 2012). This may blur the fact that the victims may have multiple social categories or stigmatized identities related to the bias event (Díaz-Faes & Pereda, 2022) – for instance, ethnicity, disability, gender identity, sexual orientation or social class, which are produced through each other. Intersectionality posits that multiple social identities interact at different levels of individual experience, reflecting the intertwining macro systems of oppression and privilege. (e.g., ableism, ethnocentrism, racism, or heterosexism) informing the person’s experience (Nash, 2008). Such a stance helps to understand bias events more comprehensively through the lens of perceived vulnerability and difference rather than through single motivations or particular strands alone (Chakraborti & Garland, 2012). Macdonald et al. (2021) showed how the disability of victims may be masked through identification solely according to group membership, with the result that they are often classified only under one of the categories.

At the same time, certain detrimental behaviors do not legally qualify as hate crimes, but they are equally bias-motivated and cause victims’ exclusion and harm. This is why it is crucial to account for noncriminal bias events (Farrell & Lockwood, 2023). Concerning persons with disabilities, as the ‘mate crime’ framework has underlined (Thomas, 2011), in some cases victim and perpetrator are known to each other; they have a mutual relationship as ‘friends’ or ‘relatives’ or share a degree of domesticity. Bias events in this context are seldom recognized and/or reported as bias victimizations, since the widespread conception is that such acts must be perpetrated by an “outsider,” as opposed to members of the victim’s household or social network (i.e., “mates”).

It is also important to highlight the concept of poly-victimization, which emphasizes the idea of an intersection between different types of victimization. Poly-victims are a group of individuals who suffer from high levels of different types of victimization in multiple life contexts, resulting in increased levels of psychological distress and adverse mental health outcomes (Finkelhor et al., 2009). Studies assessing multiple victimizations across people with ID have identified substantial victimization rates (Fisher et al., 2016; Horner-Johnson & Drum, 2006). The few assessments of poly-victimization among this population have

shown a high number of adverse events (Codina et al., 2022; Turner et al., 2011). Cuevas et al. (2021) reported that in this framework of multiple victimizations, bias victimization seems to be significantly associated with other non-bias victimizations both as a predictor and as an outcome.

### **The current study**

In view of the above, we might expect an overlap between bias and non-bias victimization and an increased risk of high victimization levels among bias victims. In the case of people with ID, those who experience bias victimization are likely to be the most victimized due to their increased vulnerability or disempowerment related to individual or environmental factors. The present exploratory study aims to broaden our understanding of the dynamics of violence against people with ID by applying an intersectional approach. We have three main objectives: first, to identify bias victimization in a sample of people with ID using self-report measure to capture physical bias attacks; second, to compare the number of different types of victimization and the polyvictimization status between bias victims and non-bias bias victims; and third, identify the victim, offender(s), victim-offender relationship, and location.

### **Method**

#### **Participants**

A convenience sample of 260 adults with an ID diagnosis (154 men and 106 women) aged between 20 and 71 years ( $M = 41.7$ ;  $SD = 12.0$ ) was recruited from specialized organizations that are members of the Catalan Federation of Non-profit Entities for People with ID (DINCAT) in Catalonia. These organizations provide services and employment opportunities to people with ID in Catalonia. The organizations that agreed to enroll invited their users to participate voluntarily in the study. Individuals who had experienced bias victimization ( $n = 92$ ; age  $M = 41.2$ ,  $SD = 11.9$ ; 54.3 % men) or non-bias victimization ( $n = 160$ ; age  $M = 41.6$ ;  $SD = 12.0$ ; 61.9% men) comprised the sample for the present study. The participants who did not experience any victimization were excluded ( $n = 8$ ).

## ***Procedure***

A collaboration agreement with DINCAT was signed, and consent was obtained from all participants before enrolling. Easy-to-read versions of the consent and an information sheet were created to ensure that the participants understood the objectives and the nature of the study. Ten volunteer psychologists familiar with IDs were trained in the application of the questionnaire (described below). The questionnaire was administered individually in an interview format with the visual support of pictograms when necessary.

## ***Measures***

*Sociodemographic data.* A datasheet was created *ad hoc* for the study. It included age, gender, country of origin, education, accommodation, disability information (legal incapacity, support needed, type of care services received), as well as diagnoses of other disabilities.

*Bias victimization.* A tailored adult version of the Juvenile Victimization Questionnaire was administered (Pereda et al., 2018). The questionnaire explores 28 different victimization events distributed in five modules: (a) *common victimization*, six items; (b) *caregiver victimization*, six items; (c) *sexual victimization*, six items; (d) *witnessing and indirect victimization*, four items; and (e) *electronic victimization*, six items. The JVQ gives information on victimization rates and specific details of each type of victimization and allows the calculation of poly-victimization. It has shown good psychometric properties (Finkelhor et al., 2005), and the Cronbach's alpha for the JVQ in this study was .84.

The *bias attack* victimization item from the *common crime* module was used to capture bias-related violent experiences. The wording of the item is as follows: "At any time in your life, have you been hit or attacked because of your skin color, religion, or where your family comes from? Because of your disability or a physical problem you have? Or because someone said you were homosexual?". The response to this item is dichotomous (yes/no). Its wording reflects possible perceived biases or prejudices on which the attack was based but does not break them down. (i.e., into disability, skin color, sexual orientation, etc.). This item comes with a set of follow-up questions which are asked only if the participant initially answers "yes". They contain relevant information about the victim, the experience of

victimization, frequency, perpetrator, harm, and disclosure. Poly-victimization status was calculated using the complete questionnaire. Poly-victims were defined as those at or above the 90th percentile in the number of victimization items (Finkelhor et al., 2009).

### ***Data analysis***

Before conducting the statistical analysis, we examined the missing values. Overall missing data were low (< 2%). We scrutinized the missing data pattern visually using Little's Missing Completely at Random (MCAR) test ( $X^2 = 769.61, p = .189$ ). We considered that missing data were missing at random, and performed the imputation by the mice package in R using the multiple chained equation solution (van Buuren & Groothuis-Oudshoorn, 2011). First, we ran a descriptive analysis for the sociodemographic characteristics of the bias and non-bias victims. We also calculated the total number of different types of victimizations and the poly-victimization score using the other 27 victimization items. We then compared the number of victimizations and the poly-victimization status between the two groups using Mann-Whitney U ( $U$ ), due to the non-normal positively skewed distribution and unequal sample sizes; and Chi-square ( $X^2$ ) with rank-biserial correlation ( $r_{rb}$ ) and odds ratio ( $OR$ ) as measures of effect size. To mitigate the risk of Type I error associated with the presence of outliers identified using Tukey's method, we also conducted Yuen's trimmed mean test (Yuen's  $t$ -test) and compute its effect size ( $\zeta$ ) as a robust alternative to confirm the results of the standard nonparametric test when comparing the scores of the two groups (Yuen, 1974). Finally, we broke down the features of the bias events accounting for characteristics of the victim, offender(s), victim-offender relationship, and location. We set the  $p$ -value at 5%. We used R version 4.2.2 to perform the analysis (R Core Team, 2023) and the WRS2 package for robust statistics (Mair & Wilcox, 2020).

### **Results**

Ninety-two participants (35.4%) reported experiencing bias victimization at some point in their childhood. The age in this subsample ranged between 20 and 71 years ( $M = 41.2; SD = 11.9$ ); 42 (45.7%) were women and 50 were men (54.3%). Further sociodemographic information is presented in Table 6. There were no significant sociodemographic differences between bias and non-bias victims.



**Table 6.** Sample's sociodemographic characteristics.

Variables	Bias victims	Non-bias victims	Statistics
	( <i>n</i> = 92) %	( <i>n</i> = 160) %	
<b>Age <i>M</i> (<i>SD</i>)</b>	41.2 (11.9)	41.6 (12.0)	$U = -7288, p = .90$
<b>Gender</b>			$X^2(df) = 1.37(1), p = .24$
Female	45.7	38.1	
Male	54.3	61.9	
<b>Type of education<sup>a</sup></b>			$X^2(df) = 3.37(2), p = .19$
Regular education	45.7	41.9	
Regular education & support	25.0	18.1	
Special education	29.3	40.0	
<b>Place of residence</b>			$X^2(df) = 0.73(2), p = .69$
With family/relatives	43.4	45.5	
Group home/Institution	34.0	35.0	
Own home/alone	22.6	19.5	
<b>Legally incapable<sup>b</sup></b>			$X^2(df) = 0.57(1), p = .45$
Yes	60.1	65.6	
No	39.9	34.4	
<b>Legal guardianship<sup>c</sup></b>			$X^2(df) = 0.89(3), p = .83$
No	39.1	35.6	
Institution	26.1	24.4	
Family members/relatives	30.4	36.3	
Others	4.4	3.7	
<b>Type of support needed<sup>d</sup></b>			$X^2(df) = 3.46(3), p = .33$
General	8.7	6.2	
Extensive	15.2	23.1	
Limited	31.5	34.4	
Intermittent	44.6	36.3	
<b>Number of services received<sup>e</sup></b>			$X^2(df) = 1.52(2), p = .47$
None	5.7	5.0	
One	82.1	82.5	
Two	12.3	12.5	

<b>Secondary disability<sup>f</sup></b>			$X^2(df) = 0.44(1), p = .51$
No	34.9	35.6	
Yes	65.1	64.4	
<i>Type of secondary disability</i>			$X^2(df) = 2.79(3), p = .43$
None	34.9	35.6	
Physical disability	27.4	28.8	
Mental health disability	22.6	23.1	
Both	15.1	12.5	

*Note.* Non- bias victims vs. bias victims. ID = intellectual disability.  $U$  = Mann–Whitney  $U$ ;  $X^2(df)$  = Chi-squared(degrees of freedom).

<sup>a</sup> Type of education received in the past: regular education is traditional education in regular schools; regular education with additional special support; special education means education for children with intellectual disabilities.

<sup>b</sup> According to the Spanish Civil Code, a person who is not able to handle personal, financial, and legal affairs and needs a legal guardian.

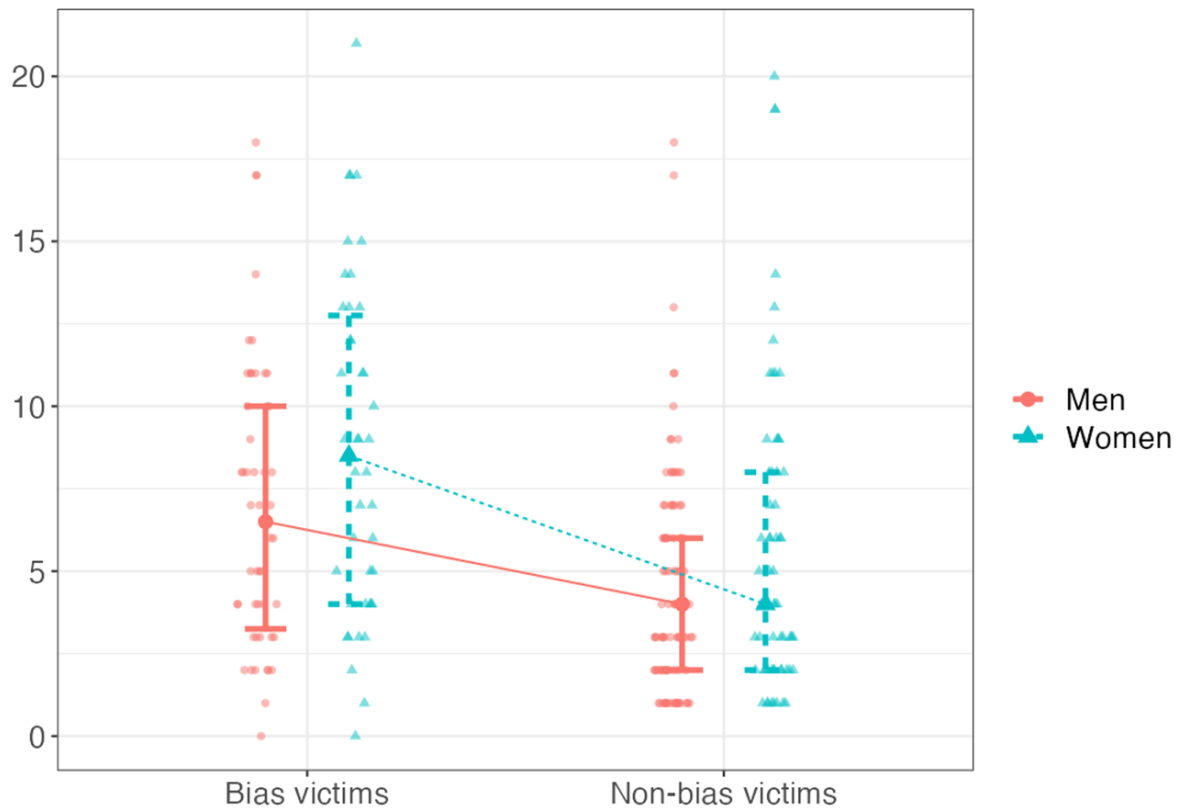
<sup>c</sup> The authority conferred on someone to take care of a person declared legally incapacitated and help them with the decision-making.

<sup>d</sup> Support required to carry out daily activities.

<sup>e</sup> Number of services (occupational, leisure, special care, school) accessed at the time of the survey.

<sup>f</sup> Another diagnosed disability that coexists alongside the main intellectual disability.

The mean number of different types of victimizations in the sample was 5.98 ( $SD = 4.45$ ;  $Mdn = 5$ ). It was significantly higher for bias victims ( $M = 7.74$ ;  $SD = 4.78$ ;  $Mdn = 7$ ) than non-bias victims ( $M = 4.96$ ;  $SD = 3.93$ ;  $Mdn = 4$ ), with a medium effect size ( $r_{rb} = .37$ ;  $\xi = .42$ ). Figure 4 breaks down its distribution for bias and non-bias victims by gender. Victims of bias experienced significantly more victimizations of different types (e.g., robbery, online or caregiver victimization, physical or sexual abuse) than their peers who had not undergone bias victimization (Table 7). The threshold for poly-victims was set at 12 different types of victimization. Poly-victims were more likely to be among the victims who had experienced bias victimization ( $n = 28$ , of which 67.9% belong to the bias victim group), with a fourfold higher risk ( $OR = 4.37$ ; 95% CI [1.88–10.10];  $p < .001$ ) than non-bias victims.



**Figure 4.** Number of exposures to different types of victimization across bias and non-bias victims by gender.

**Table 7.** Number of victimizations and polyvictimization status among bias and non-bias victims.

Variable	Number of victimization events			Polyvictimism <sup>a</sup>			
	<i>M</i>	<i>SD</i>	<i>Mdn</i>	<i>Statistics</i>	<i>n</i>	<i>%</i>	<i>Statistics</i>
<b>Bias victims</b>	7.74	4.78	7	<i>U</i> = 4638, <i>p</i> < .001, <i>r<sub>rb</sub></i> = .37; Yuen's <i>t</i> -test( <i>df</i> ) = 4.48(58), <i>p</i> < .001, $\xi = .42$	19	67.9	$\chi^2(df) = 13.40(1)$ , <i>p</i> < .001; <i>OR</i> = 4.37 (1.88–10.10)
<b>Non-bias victims</b>	4.96	3.93	4		9	32.1	

*Note.* *U* = Mann–Whitney *U*; *r<sub>rb</sub>* = Rank-biserial correlation; Yuen's *t*-test = Yuen's trimmed mean test;  $\xi$  = effect size for trimmed mean test;  $\chi^2(df)$  = Chi-squared(degrees of freedom).

<sup>a</sup> Polyvictimism were those who have experienced  $\geq 12$  victimizations (at or above 90<sup>th</sup> percentile).

Most of the victims experienced various episodes of bias victimization (89.1%;  $n = 82$ ). Occurrences were reported to be “few” by 42.4% ( $n = 39$ ) and “many” by 46.8% ( $n = 43$ ). To obtain further details of the victimization, the participants were asked about the last incident (Table 8). All incidents involving strangers (67.4%;  $n = 29$ ) occurred in public places, as did most involving friends, neighbors, and other acquaintances (30.2%;  $n = 13$ ). Schoolmates and fellow employees perpetrated the victimizations in schools and places of work. More than a quarter of the victims were injured (27.2%,  $n = 25$ ) as a result of the incident.

**Table 8.** Bias victimization: Characteristics of the victim, offender(s), victim-offender relationship, and location.

	Total		%Men	%Women
	<i>n</i>	%	( <i>n</i> = 50)	( <i>n</i> = 42)
<b>Victim</b>				
Multiple disabilities (physical, sensory, mental health)	61	66.3	66	71.4
Age at time of the last incident				
Minor (less than 18 years)	39	42.4	46	38.1
Adult (18 years or more)	44	47.8	48	47.6
Injured as a result of the incident	25	27.2	22	33.3
<b>Offender(s)</b>				
Age				
Minor (less than 18 years)	38	41.3	49	34.2
Adult (18 years or more)	38	41.3	48	35.7
Unknown	16	17.4	4	30.1
Gender				
Male	54	58.7	62	54.8
Female	4	4.3	4	4.8
Both	31	33.7	32	35.7
Unknown or not sure	3	3.3	2	4.7
Relationship victim-offender				
Stranger	31	33.7	30	38.1
School/residential peers	44	47.8	52	42.9

Friends, neighbors, acquaintances	14	15.2	16	14.3
Unknown or not sure	3	3.3	2	4.7
<b>Location of the incident and relationship victim-offender</b>				
Public place (street, park, public transport etc.)	43	46.7	44	50
Strangers <sup>1</sup>	29	67.4	68.2	66.7
School/residential peers	1	2.3	4.5	0
Friends, neighbors, acquaintances	13	30.2	27.3	33.3
School or high school	33	35.9	40	31
School/residential peers	30	90.9	90	92.3
Friends, neighbors, acquaintances	3	9.1	10	7.7
Residential center	3	3.3	4	2.4
School/residential peers	2	66.7	100	0
Friends, neighbors, acquaintances	1	33.3	0	100
Occupational center	10	10.9	10	11.9
School/residential peers <sup>2</sup>	10	100	100	100

<sup>1</sup> Strangers only acted in public spaces and therefore do not appear in the other categories.

<sup>2</sup> Peers were the only offenders performing the bias victimizations in occupational centers.

Regarding disclosure, 63% ( $n = 58$ ) of the victims had described the event to someone else, while the remaining 37% ( $n = 34$ ) kept the experience to themselves. In the cases where the event was disclosed, the person to whom the disclosure was made was usually a family member or a close friend (56.9%;  $n = 33$ ) or a social care professional (29.3%;  $n = 17$ ). Only 6.9% ( $n = 4$ ) informed a psychologist and just 5.2% ( $n = 3$ ) a schoolteacher. Only one victim reported the event to the police.

## Discussion

Evidence is emerging of high rates of victimization among people with ID and a greater likelihood of victimization compared to their non-disabled counterparts (Brendli et al., 2022; Codina et al., 2022). Bias victimization and hate crime involving this population is a neglected area of research.

This study has found that one in three people with ID have suffered bias victimization and that they are more frequently victimized than ID victims of other events. Although the

results do not indicate significant sociodemographic differences from the rest of the victims, victims of bias offenses seem to present some additional characteristics linked to their vulnerability or an increased exposure to interactions with potential perpetrators. Perhaps their own physical features or social skills, and interpersonal communication deficits that highlight their disability, make them easy targets for bias offenses. It may be that other external or contextual differential variables have not been detected and recorded in this study.

Incidents in a school, residential or occupational centers mainly involved peers known to the victims, while strangers were most likely to perpetrate victimizations in public places. In our study, most participants of school age attended regular schools (though some received support). Their experiences of bullying or dynamics of hostility and harassment are thus allegedly committed by peers, relatives or acquaintances. As Doherty (2020) suggested, these incidents could be labeled ‘mate crimes’. In contrast, most strangers’ offenses occurring in public facilities may be more in line with the traditional conception of hate crime. Nonetheless, the information gathered does not allow us to conclusively identify the context of the victimization since it is an inference based on the relationship between the victim and the offender.

The way in which the concept of hate crime has been constructed fosters the idea that there is no relationship between victim and perpetrator (Díaz-Faes & Pereda, 2022). This assumption may contribute to obscuring the presence of bias-motivated violence in the context of the family or among friends and acquaintances. Future research should explore individual variables jointly such as the degree of disability, the type of ID, race–ethnicity, gender identity, sexual orientation, and social class. An analysis of household arrangements and dynamics, and relationships with peers, would also be valuable.

The present study has limitations, and the results should be interpreted with caution. The sample is non-probabilistic, relatively small, and was not matched, and so we were unable to conduct additional statistical tests. In addition, the study does not include individuals who are not in care or receiving occupational services from DINCAT affiliated organizations, which may be a more socially isolated portion of the ID population.

## **Conclusion**

The study offers novel insights that may inform future research on bias victimization among people with ID. It suggests possible vulnerabilities and disempowerment dynamics, demonstrated by their higher number of different types of victimization and a greater likelihood of being poly-victims compared to non-bias victims. It offers detailed information on the characteristics of bias victimization in a largely unexplored population such as people with ID. Future research should use more powerful study designs, such as prospective investigation, more nuanced approaches, and more sensitive instruments to explore bias victimization across this population.

## **7. Study 4: Identifying victimization clusters across people with intellectual disabilities: A latent class analysis**

Díaz-Faes, D. A., Codina, M., Pereda, N. (2023). Identifying victimization clusters across people with intellectual disabilities: A latent class analysis.

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## Abstract

**Background:** Research has shown high rates of victimization among people with intellectual disabilities, but victimization clusters have not been previously explored. **Objective:** We address the gap by examining how reported victimization experiences are grouped into different classes and identifying differences in the characteristics of the individuals in each class. **Methods:** We conducted a cross-sectional self-report study with a sample of adults with an ID diagnosis ( $n = 260$ ). We gathered data about the participants' victimization experiences and socio-demographics, and then subjected the data to latent class analysis (LCA). **Results:** Three different classes were detected: High victimization ( $n = 27$ , 10.4%); medium victimization, low sexual ( $n = 97$ , 37.3%); and low victimization ( $n = 136$ , 52.3%). The results highlight the experiences of sexual and physical victimization among the high-victimization class and physical victimization among the medium-victimization class. However, the study also found that experiences of assault and bias attacks occur to a varying extent across all three classes. The latent class analysis and poly-victimization method showed substantial agreement but also revealed relevant differences when identifying the most victimized participants. In addition, we detected significant differences between classes in gender, type of school attended, place of residence, legal incapacity, type of support needed, secondary disability and poly-victimization status. **Conclusion:** We detected different underlying ingroup patterns of victimization that can help to better understand victimization across the population in question and grasp any related nuances. The results have prevention and intervention implications for caregivers and providers of services for people with ID.

*Keywords:* intellectual disability, violence, victimization, self-report, latent class analysis

## Introduction

It is estimated that people with ID account for 1.74% of the worldwide population, albeit regions with lower to middle socio-economic index have higher rates of ID than regions with higher indices (Nair et al., 2022). ID comprise a group of diagnoses that entail significant handicaps in intellectual functioning and adaptive behavior, starting before age 22 (Schalock et al., 2021). In addition to the handicaps inherent in the condition, the group also tends to present more mental health problems (Buckles et al., 2013) and higher poverty rates (Mitra et al., 2013), while group members often face cumulative adverse life events, violence, marginalization and stigma (Meer & Combrinck, 2015). Comprehensive research on the adverse life experiences of people with ID is limited. Despite this constraint, the available literature has made it possible to perform a number of meta-analyses (Fang et al., 2022; Hughes et al., 2012; Jones et al., 2012) that show a higher overall risk of experiencing violence for people with disabilities than for people without disabilities. The existing research primarily focuses on certain types of interpersonal violence (Hughes et al., 2012), such as sexual violence (Byrne, 2018), intimate partner violence (Bowen & Swift, 2019) and physical violence (Lund et al., 2017). However, there is little evidence for other relevant experiences of the underrepresented group in question because of the challenges of collecting this data, such as bias-motivated violence (Díaz-Faes et al., 2023) and victimization at hands of caregivers (Strand et al., 2004).

In line with these findings, studies that assess different types of violence within the same survey have reported a pattern of multiple victimizations marked by several episodes of abuse rather than a single isolated event (Beadle-Brown et al., 2010; Codina et al., 2022). In contrast, other authors have suggested that the increased risk is distinctly different from the general population only for some experiences such as sexual and violent victimizations, but not for other types (Fogden et al., 2016; Nixon et al., 2017). This may suggest a different distribution of victimization from those classically assumed for the ID population or indicate that there are various intragroup profiles among victims.

The homogenizing rationale that presumes everyone with ID is at greater risk of victimization is often accepted uncritically and the increased risk is attributed to an intrinsic vulnerability linked to the ID condition (McConnell & Phelan, 2022) as if all the individuals

shared a single core condition. However, this assumption prevents an integrative understanding of the underlying dynamics of violence that come to light when different subpopulations of people with ID are analyzed and their differences considered (Fisher et al., 2013; Nouwens et al., 2017). Some highlighted intragroup differences in relation to the risk of experiencing violence are, for example, gender for certain types of violence, such as sexual or physical types (Codina & Pereda, 2022; Fogden et al., 2016; Nixon et al., 2017); the level of cognitive functioning (Nouwens et al., 2017); the type of intellectual disability (Fisher et al., 2013); and any comorbidity with mental health disorders (Buckles et al., 2013; Fogden et al., 2016). Some environmental factors, such as living at home or in a residential or care facility, have also been found to be relevant. Individuals in congregate centers face a higher risk of physical and sexual victimization by staff members or other users (Beadle-Brown et al., 2010; Strand et al., 2004).

Vulnerability to victimization often exists as a continuum in the lives of people with intellectual and developmental disabilities (ID) (Jones et al., 2012). When examining childhood victimization experiences, children with ID face a higher risk of physical and sexual violence compared to their peers without these disabilities (Turner et al., 2011). Clustering retrospective childhood adversity and abusive experiences among adults has been shown to identify different patterns of victimization among victims that can prove clinically useful (Curran et al., 2018). It can help allocate resources effectively and deploy tailored interventions and prevention initiatives to address their unique vulnerabilities and risks, leading to more efficient and impactful efforts. While the clustering approach may yield valuable information, however, it has not yet been adopted in ID populations. In addition, we have also considered poly-victimization, defined as the experience or co-occurrence of multiple types of victimization in different episodes during a childhood (Finkelhor et al., 2009), which will allow us to compare two methods to identify the highest victimized group: the clustering technique and poly-victim status.

The current study has three main objectives: (a) identify different unobserved clusters of victims among a sample of people with ID; (b) compare the performance of the clustering method in relation to the identification of the most victimized group based on poly-victim status; and (c) compare the differences across the identified unobserved groups.

## Method

### *Participants and procedure*

We draw a non-probabilistic clinical sample of 260 adults with an ID diagnosis, aged between 20 and 71 years, recruited through a specialized association that brings together a number of specialized institutions dedicated to supporting individuals with ID by providing housing, services, education, and employment opportunities. Access to these services requires a clinical ID diagnosis, and all our participants were users of these services and had such a diagnosis.

Before conducting the study, we signed a collaboration agreement with the organization and approval was obtained from the ethics committee. The inclusion criteria were to be 18 years of age or older, have an ID medical diagnosis, be able to understand the study's aim and its questions, and be able to give consent to take part. All individuals voluntarily agreed to participate before entering the study. We prepared an easy-to-read version of the questionnaire to ensure that participants understood the study's nature, aim and content. We conducted individual interviews with each participant, relying on visual support (i.e., pictograms) when necessary. If required, participants received additional support to answer the questions. Only 9.6% of the sample asked for such support.

### *Measures*

*Socio-demographics.* We prepared a datasheet for the study to cover age, gender, type of school attended, housing, secondary disability diagnosis and information related to the disability, legal incapacity and support needed.

*Victimization.* A tailored version of the *Juvenile Victimization Questionnaire* adult form was administered (Pereda et al., 2018). This version contains five modules covering 28 specific victimization events, of which we used 11 to conduct the analysis described below. We selected the 11 items because they are the most representative ones across the victimization typologies and they are the most appropriate for the population assessed (Beadle-Brown et al, 2010; Fogden et al., 2016; Turner et al., 2011). They include two items from the common victimization module, three items from the caregiver victimization module, three items from the sexual victimization module, two items from the witnessing

and indirect victimization module, and one item from the electronic victimization module. Specifically, the items address bias attack, assault, verbal aggression by the caregiver, physical abuse by the caregiver, neglect, fondling, sexual stimulation, rape, witness to violence between parents, witness to sibling assault by a parent, and cyber-harassment. To facilitate a clear understanding of the questionnaire, we included personalized cards featuring pictograms corresponding to each item statement. We also calculated poly-victimization using the 28 JVQ items and compared the degree of agreement between the highest victimized class identified by the survey and poly-victimization status using Cohen's kappa ( $\kappa$ ). We identified poly-victims as those participants in the 90th percentile of victimization scores (Finkelhor et al., 2009). The reliability for the JVQ in the current study was good (Cronbach's alpha = .84).

### ***Data analysis***

Missing data rates for victimization were low (the overall missing data rate was 1.23%) and ranged from 0.4% to 6.9% across all items. We visually inspected the missing data pattern and applied Little's Missing Completely at Random (MCAR) test ( $X^2 = 769.61$ ,  $p = .189$ ), and concluded that they appeared to be missing at random with no identifiable pattern. We used chained equations through the mice package in R for multiple imputation (van Buuren & Groothuis-Oudshoorn, 2011).

Then, to identify unobserved groups with similar response patterns, we used latent class analysis (LCA). To ensure the validity of this approach, we calculated the Hopkins statistic ( $H = 0.999$ ) and assessed the Visual Assessment of Tendency (VAT) of the victimization items. Our analysis indicates that the data points are not randomly distributed, suggesting the presence of potentially meaningful clusters. Large samples are preferred to cluster techniques, but when there are fewer than three hundred cases, then models with few indicators and well-separated classes bigger than 5% are desirable for good performance (Weller et al., 2020). Following these principles, we fit a series of LCAs with two to six classes using the 11 victimization indicators described above, doing so by means of the glca package in R (Kim et al., 2022) to estimate class membership and using the expectation-maximization algorithm to find maximum likelihood. Significance levels were estimated using the  $p$ -value at 5% ( $p < .05$ ). LCA allows us to probabilistically classify participants

based on the underlying statistical model, producing and evaluating the fit of the models and comparing the statistical performance of the different class solutions (Nylund-Gibson & Choi, 2018). We examined model fit by comparing the Akaike information criterion (AIC), the Consistent Akaike information criterion (CAIC), the Bayesian information criterion (BIC), the likelihood-ratio test statistic ( $G^2$ ) and its bootstrap likelihood-ratio test (BLRT). We also assessed classification diagnostic statistics using entropy and average posterior probabilities (AvPPs), which help to evaluate the accuracy of the classification, but are not relevant in determining the final class solution. BIC and AIC give the relative fit of models where lower values indicate better fit and parsimony. BLRT yields an approximate  $p$ -value for absolute model fit to evaluate whether a specific model correctly represents the data. The null hypothesis posits that the observed data comes from the fitted model. Thus, you expect not to reject the null hypothesis ( $p > .05$ ). BLRT also provides a deviance statistic for relative model fit to compare the better fit across the two competing models. The null hypothesis is that the current model ( $k$  classes) does not outperform the preceding model ( $k - 1$  classes). A desirable  $p$ -value ( $p < .05$ ) shows that the current model provides a more parsimonious fit. An entropy closer to 1 is ideal: values greater than .80 stand above the recommended threshold, whereas values below .60 are considered unacceptable. AvPPs close to 1 are also ideal and values above .80 are considered acceptable (Weller et al., 2020).

LCA provides posterior probabilities (i.e., an individual's conditional probability to belong to a specific class) and item-response probabilities (i.e., an individual's conditional probability of giving a particular response to a specific item, considering they belong to a specific latent class). Once the best solution is selected, each participant is assigned to a most likely latent class using maximum posterior probabilities, and victimization class prevalence is summarized, and victimization classes are labeled based on item-response probabilities. A fundamental assumption for LCA models is local independence (i.e., observed indicators are uncorrelated 160 within each class), we assessed this by visually inspecting the residuals and conducting the Chi-square test for each pair of indicators within each latent class (Visser & Depaoli, 2022). Finally, we present descriptive statistics across the optimal class solution. We examine the difference between classes using one-way analysis of variance (ANOVA) for continuous variables and Chi-square or Fisher's Exact test for categorical variables,

corrected for multiple comparison to avoid type I error, and effect sizes. All analyses were conducted in R version 4.2.2 (R Core Team, 2023).

## Results

### *Descriptive statistics*

The sample comprised 154 men (59.2%) and 106 women (40.8%). The mean age of participants was 41.7 ( $SD = 12.0$ ), with no significant differences between men and women ( $T = .175, p = .862$ ). Most participants were declared legally incapable (64.2%), in which case legal guardianship was conferred to family members or relatives (55.2%), institutions (38.8%) or others (6%). Only a little more than one-sixth (17.7%) lived alone, while the rest lived with family or relatives (46.5%) or in an institution or group (35.8%). Five-sevenths of the participants (71.9%) needed limited or intermediate support on a daily basis. Roughly two-thirds of the sample (66.9%) has a secondary disability diagnosis that concurs with their intellectual disability diagnosis. A total of 40 participants fell in the top 10% of most victimized, regarded as poly-victims, and experienced at least 13 different types of victimization ( $M = 13.0, SD = 4.84$ ). They include 18 women and 10 men, who account for 17.0% and 6.5% of each group, respectively, pointing to the overrepresentation of poly-victims among women.

### *Model selection and class assignment*

Values of the goodness-of-fit statistics for the different models appear in Table 9. Only the three-class and four-class models fit the data adequately in terms of the absolute model fit statistic (BLRT  $p = .08$ , for both models). However, in terms of relative model fit, the four-class model does not outperform the three-class model (BLRT deviance  $p = .06$ ), which at the same time offers better performance than the two-class model. The three-class model also presents the lowest values in two out of three information criteria (AIC and BIC), the second lowest value in CAIC, an entropy value of around .8, the highest degree of certainty in classification accuracy (AvPPs), and an adequate size for the smallest class (above 10%). Therefore, based on the fit indexes, parsimony, conceptual considerations and interpretability and adherence to the local independence assumption, we have selected the three-class solution because it shows the best performance (Weller et al., 2020). Figure 5 and Table 10 present the response patterns identified across the three classes.

**Table 9.** Model-fit statistics comparisons by latent class.

Model	Residual df	AIC	CAIC	BIC	G <sup>2</sup>	BLRT <i>p</i>	BLRT deviance <i>p</i>	Smallest class %	Entropy	AvPPs
Two-class	236	2798	2903	2880	607	<.001	N/A	32.7	.75	0.89–0.94
<b>Three-class</b>	<b>224</b>	<b>2748</b>	<b>2907</b>	<b>2872</b>	<b>533</b>	<b>.08</b>	<b>.00</b>	<b>10.4</b>	<b>.78</b>	<b>0.89–0.97</b>
Four-class	212	2747	2961	2914	508	.08	.06	10.4	.82	0.87–0.95
Five-class	200	2749	3018	2959	486	.02	.18	5.3	.86	0.78–0.96
Six-class	188	2754	3078	3007	468	<.001	.04	4.1	.86	0.81–1.00

*The best solution appears in bold.*

*Note:* AIC = Akaike’s information criterion; CAIC = Consistent Akaike information criterion; BIC = Bayesian information criterion; G<sup>2</sup> = Likelihood-ratio chi-square statistics; BLRT = Bootstrap likelihood-ratio test, AvPPs = Average posterior probabilities.

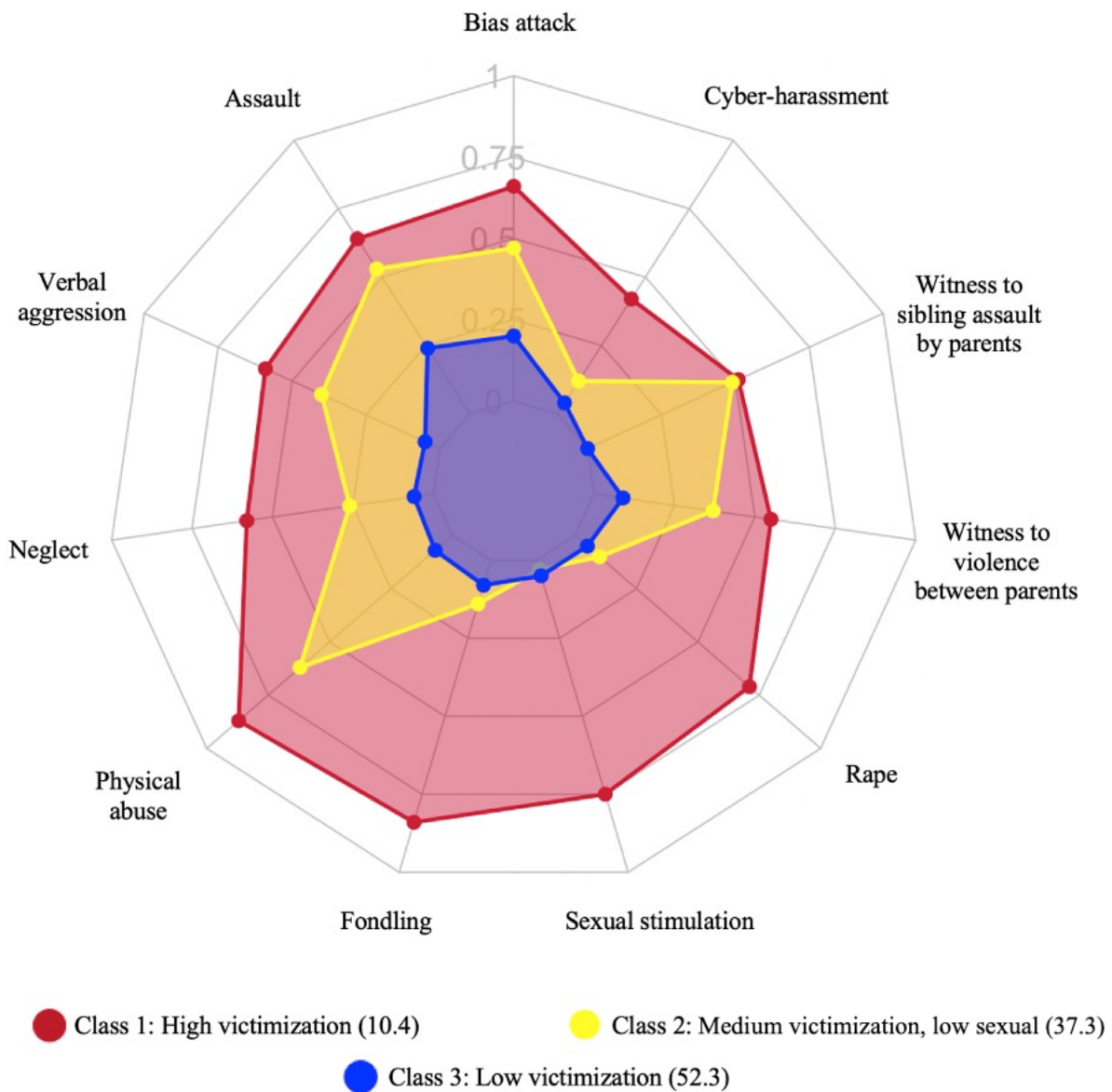
### ***Class description and comparison***

*Class 1: High victimization (n = 27, 10.4%).* The smallest class among the three has the highest probabilities for each of the 11 victimization items, ranging from .42 for cyber-harassment to .87 for physical abuse. The probability of sexual victimization is remarkably high across the three items that are over seventy, namely fondling (.84), sexual stimulation (.75) and rape (.71). Such probabilities indicate a pronounced vulnerability to various forms of victimization within this class. This stands in stark contrast to the other two classes, where only one of the three items is higher than 0.10. That said, caregiver and witnessing victimization probabilities are not as high as they are for sexual victimization, but they are all over .50.

*Class 2. Medium victimization, low sexual (n = 97, 37.3%).* The second largest class presents medium levels of victimization probabilities in about half of the items measured, ranging from .03 for sexual stimulation to .62 for physical abuse. Then, assault (.53), witnesses to sibling assault by parents (.49) and bias attack (.47) have the highest loadings, which are not far from those for the high-victimization class. Low probabilities in sexual victimization, including fondling (.14), rape (.10) and sexual stimulation (.03), characterize this class, with the latter having the lowest loading of the three. Only cyber-harassment has a similar probability (.12).



*Class 3. Low victimization (n = 136, 52.3%).* Class 3 represents the largest group with the lowest item response probabilities of endorsement for all victimizations measured. The probabilities range from .00 for witness to sibling assault by parents to .24 for assault. Nine of the 11 items are below .10, except for the two common victimization ones, bias attack and assault. The low loadings here stand in stark contrast to the two witnessing and three caregiver victimization items, which have medium to high loadings in the other two classes.



**Figure 5.** Radar plot of item-response probabilities across latent classes.

**Table 10.** Item-response probabilities across classes.

	<b>Class 1: High victimization</b>	<b>Class 2: Medium victimization, low sexual</b>	<b>Class 3: Low victimization</b>
<b>Class size</b>	<i>n</i> = 27 (10.4%)	<i>n</i> = 97 (37.3%)	<i>n</i> = 136 (52.3%)
Bias attack	<b>.66</b>	.47	.20
Assault	<b>.64</b>	<b>.53</b>	.24
Verbal aggression	<b>.59</b>	.40	.05
Neglect	<b>.58</b>	.26	.06
Physical abuse	<b>.87</b>	<b>.62</b>	.07
Fondling	<b>.84</b>	.14	.08
Sexual stimulation	<b>.75</b>	.03	.05
Rape	<b>.71</b>	.10	.05
Witness to violence between parents	<b>.55</b>	.37	.09
Witness to sibling assault by parent	<b>.51</b>	.49	.00
Cyber-harassment	.42	.12	.04

Highest loadings appear in bold ( $\geq .50$ ).

All considered variables and comparisons across the three latent classes appear below in Table 11. Overall, there was a significant difference between the three classes except in two variables: age ( $p = .537$ ) and the existence of a secondary disability diagnosis ( $p = .260$ ). All other variables, including gender ( $p < .001$ ), type of school attended ( $p = .003$ ), place of residence ( $p = .042$ ), legal incapacity ( $p = .018$ ), type of support needed ( $p < .001$ ) and type of secondary disability ( $p = .014$ ) showed significant differences across the three groups. Women are overrepresented in the high-victimization class compared to men since they make up almost three-quarters of the group (70.4%). For the type of school attended, medium and high-victimization classes mostly attended regular education with special support and regular education, respectively. For place of residence, the high-victimization class differs from the medium and low-victimization classes in that it contains the highest rate of participants living at home or alone, whereas the low-victimization class reported mostly living with family or relatives. Both medium and high-victimization classes are more likely to live in residential centers than members of the low-victimization class. On legal

incapability, the high-victimization class has the highest rate of participants declared legally incapable. For individuals declared legally incapable, their legal guardianship was conferred largely to an institution (59.4%) for the high-victimization class, which is two or three times the rate for the medium and low-victimization classes. The low-victimization class also has the highest rate of legal guardianship conferred to family or relatives, which is consistent with place of residence. Participants in the low-victimization class required the highest level of support needed daily: general or extensive. On type of secondary disability, a mental health diagnosis is more than twice as likely in the high-victimization class than in the other two groups. However, presenting both a secondary mental health and a secondary physical diagnosis is more prevalent in the low-victimization group than in the other two groups. Finally, 77.8% of participants in the high-victimization class – 21 out of 27 individuals – are also classified as poly-victims ( $n = 28$ ). The two methods showed a substantial level of consistency when identifying group members ( $\kappa = .736$ ;  $p < .001$ ). The remaining poly-victims (7) fell into the medium-victimization class, whereas none was in the low-victimization class.

**Table 11.** Comparisons across the three latent classes by sociodemographic variables.

Variables	Class 1: High victimization ( $n = 27$ ) %	Class 2: Medium victimization, low sexual ( $n = 97$ ) %	Class 3: Low victimization ( $n = 136$ ) %	Statistics
<b>Gender</b>				$X^2(df) = 11.5(2), p < .001; \phi_c = .210$
Men	29.6	59.8	64.7	
Women	70.4	40.2	35.3	
<b>Age <math>M (SD)</math></b>	39.3 (10.8)	41.8 (12.6)	42.1 (11.9)	$F(df) = 0.623(75.3), p = .537$
<b>Type of school attended<sup>a</sup></b>				$X^2(df) = 16.20(4), p = .003; \phi_c = .153$
Regular education	22.2	52.6	40.4	
Regular education & support	44.4	12.4	20.6	
Special education	33.3	35.1	39.0	
<b>Place of residence</b>				$X^2(df) = 9.92(4), p = .042; \phi_c = .138$
With family/relatives	33.4	39.2	54.4	
Group home/institution	37.0	44.3	29.4	
Own home/alone	29.6	16.5	16.2	

<b>Legally incapable<sup>b</sup></b>				$X^2(df) = 7.99(2), p = .018; \varphi_c = .175$
Yes	88.9	61.9	61.0	
No	11.1	38.1	39.0	
<b>Legal guardianship<sup>c</sup></b>				$X^2(df) = 29.9(6), p < .001; \varphi_c = .240$
No	11.1	38.2	40.5	
Institution	59.3	27.8	15.4	
Family members/relatives	25.9	27.8	41.9	
Others	3.7	6.2	2.2	
<b>Type of support needed<sup>d</sup></b>				$X^2(df) = 26.6(6), p < .001; \tau_b = .219$
Intermittent	51.9	50.5	27.9	
Limited	40.7	28.9	34.6	
Extensive	3.7	11.3	31.6	
General	3.7	9.3	5.9	
<b>Secondary disability<sup>e</sup></b>				$X^2(df) = 2.69(2), p = .260$
No	22.2	38.1	31.6	
Yes	77.8	61.9	68.4	
<i>Type of secondary disability</i>				$X^2(df) = 16.0(6), p = .014; \varphi_c = .160$
Physical disability	14.8	25.8	33.1	
Mental health disability	55.6	24.7	21.3	
Both	7.4	11.3	14.0	
<b>Polyvictim</b>				$\kappa = .736, p < .001^f$
No	22.2	92.2	100.0	
Yes	77.8	7.8	0.0	

<sup>a</sup> Regular education; regular education with special support; special education for children with ID.

<sup>b</sup> A person who is not able to handle personal, financial or legal affairs and needs a legal guardian.

<sup>c</sup> The authority conferred on someone to take care of a person declared legally incapacitated.

<sup>d</sup> Support is the assistance required to carry out daily activities. They are as follows, from the lowest to highest support needed: Intermittent is required only when needed at specific times; limited is given for a limited time but on an ongoing basis; extensive means regular support related to some environments and without time limit; and general implies high intensity and constant support.

<sup>e</sup> Another diagnosed disability that coexists alongside the main intellectual disability.

<sup>f</sup> Cohen's kappa test was used to determine the degree of agreement between poly-victimization status and high-victimization class.

## Discussion

This study provides evidence of heterogeneity in the patterns of victimization among ID populations and highlights differences among the individuals who belong to each of the three identified classes. The three classes show a well-reported tendency among people with ID to experience several incidents of victimization (Beadle-Brown et al., 2010; Codina et al., 2022; Hughes et al., 2012), but they also differ in the quantity and distribution of such incidents. The most prominent experiences among the classes that exhibit the broadest victimization are sexual and physical victimization, which is consistent with previous findings (Beadle-Brown et al., 2010; Fogden et al., 2016; Nixon et al., 2017). These overrepresented forms of abuse may have a disability-related origin, that is, they may involve taking advantage of the victim's condition or legitimizing an abusive treatment because of it. The study also shows a general tendency of vulnerability to physical violence among people with ID, with assault and bias attack popping to a varying extent across all three classes.

The clustering method and poly-victimization status differ in that LCA distinguishes participants based on the interdependence of variables and yields a homogeneous ingroup identification of victimization profiles, but is also heterogeneous across groups, as evidenced by the higher rates of sexual victimization among the high-victimization class. By contrast, poly-victimization relies on a general and fixed classification of the 90th percentile of victims regardless of the type, characteristics or size of the population analyzed. The results of the two techniques found nearly the same number of individuals, however, they differ in seven of the participants put in the high-victimization class who were not identified as poly-victims. These similarities and differences validate the use of the clustering method and highlight the advantages of more nuanced and specific identification of victimization experiences between and within groups (Segura et al., 2018).

The high-victimization class (class 1) is defined by a general multiple victimization pattern, most prominently involving experiences of physical and sexual violence. It is the most at-risk class, as it suffers from all types of victimization. Being a woman, having attended regular school with support, being under the guardianship of an institution, living in a group home or at their own home, requiring less support, having a secondary diagnosis of mental health disability and being a poly-victim are the most prominent characteristics for

the class. The fact that the group in question shows greater autonomy, independence and social exposure may have to do with their greater experience of victimization. The highest rates of secondary mental health disability in the high-victimization class are in line with the research showing that the presence of comorbid mental health issues aggravates the risk of victimization (Fogden et al., 2016). The highest presence of all forms of sexual violence, including rape, is overrepresented among women. This is no coincidence since the research has repeatedly pointed out that being a woman is a strong risk factor for sexual victimization in people with ID (Byrne, 2018). Comparative studies have also shown that women experience these forms of victimization at a significantly higher rate than their male counterparts with ID (Codina et al., 2022; Fogden et al., 2016; Nixon et al., 2017).

The medium-victimization, low-sexual class (Class 2) displays a medium-victimization trend, with prominent physical violence but low sexual victimization. This class presents similarities with the high-victimization class, such as living in a group home or institution or requiring less support, meaning that they have more autonomy. However, the individuals differ in having attended regular education without support and in having secondary disability diagnoses, in which both physical and mental health diagnoses are prominent. The medium-victimization class is the one with the most similar ratio of men and women among the three classes, and shows had experiences of violence except in the sexual domain. Individuals in the medium-victimization class have dealt with different types of physical and verbal violence, and have witnessed violence in their household. This may suggest a tendency to use violence as a common mechanism of interaction or problem management in the care of people with ID (Strand et al., 2004). In comparison to those in the low-victimization class, individuals in the medium-victimization class may be more exposed to potentially abusive environments and abusers, for example, from non-disabled peers in regular school or from caregivers and medical providers, owing to their secondary physical and mental health problems.

The low-victimization class (class 3) is the largest group, making up half of the total sample and displaying a low-victimization profile. Being a man, living with a family member or relatives that have legal guardianship, having more support needs and having comorbid physical disabilities are the most prominent characteristics of the class. Specifically, the class encompasses the most dependent, least socially exposed subjects, which may result in

reduced risk opportunities and interactions with potential aggressors compared to individuals in classes 1 and 2 who live in residential centers and face a higher risk of victimization by multiple perpetrators (Beadle-Brown et al., 2010; Strand et al., 2004). The relevance of self-reporting in victimization studies seems especially important among participants in class 3. As such cases are less formally “monitored”, abuse reports may not be as numerous as they are among those living in residential or care settings. Nevertheless, low victimization rates among the least autonomous group could mask some of the barriers to recognizing and reporting abusive situations (Lund et al., 2017). Among other reasons, their lower victimization rates could be related to a high level of general compliance learned since childhood or their physical, emotional, and financial dependence on caregivers (Plummer & Findley, 2012). Then, the opportunities to detect abusive caregivers might be limited. Among other reasons, Abusive caregivers may often remain within earshot, instilling fear or intimidation in the victim, which reduces the likelihood of disclosure, or it may also be difficult for third parties to inquire or have the necessary knowledge.

## **Conclusions**

The findings from the clustering approach when applied to a clinical sample can help to raise awareness of the heterogeneity of victimization profiles in people with ID. Though we identified an extremely victimized class and a sizeable medium-victimization group, half of the participants fell into the lowest victimization class. This finding points to the problems involved in adopting simplistic views when dealing with the characteristics and life experiences of people with ID. In addition, the unobserved groups identified help promote the implementation of distinct prevention programs among ID service users by offering valuable insights into the characteristics and patterns of such experiences, informing the creation of tailored strategies for each cluster's unique needs (Mitkon et al., 2014). They are also useful for informing professionals and encouraging person-focused interventions depending on the risk profile detected in care services.

## **Limitations**

Although our study provides new insights into the different types of victims among persons with ID, it has limitations and its results should be interpreted with caution. The study design is cross-sectional and retrospective, and the sample is non-probabilistic and

relatively small. This prevents the generalization of the obtained classes to the whole population with ID and does not allow us to distinguish the temporal sequence of the victimization experiences. We did not capture the experiences of those who do not make use of a care or occupational service or who may be more socially isolated. The same applies to any participants with a more severe disability that prevented them from taking part in the study. Although our collection of victimization experiences was sensitive to the population's reporting challenges, some details were difficult to obtain. Additionally, it was not possible to explore further individual characteristics that would have been interesting for the clustering technique, such as the degree of disability or the presence of other behavioral problems.



## 8. Discussion

The study of bias-motivated violence primarily arises from Western research, which has several implications for understanding the different realities in Southern regions but also due to the epistemological consequences of perpetuating knowledge generation based on ethnocentrism. Most studies, as is common in psychological science, are conducted in Western, Educated, Industrialized, Rich, and Democratic (WEIRD) contexts (Henrich et al., 2010a), and especially from a USA-centric sampling as the embodiment of humankind (Cheon et al., 2020). For a long time, it was assumed that the way humans behave in WEIRD contexts is universal and not essentially different from non-WEIRD societies. However, research in evolutionary psychology, neuroscience, anthropology, and related disciplines has pointed out precisely the opposite, noting how differences across populations may arise due to adaptations to different culturally constructed environments (Henrich et al., 2010b). Continuing with such a focus hampers the capture of human diversity and its complex nature, as assumptions about the universality of a fundamental set of psychological principles and group processes cannot certainly be applied to the entire population. Although differences across cultures could also result from distinct interpretations of the situation, participants' performance does not solely stem from distinct psychological differences.

In any case, that is why it is crucial not only to move forward toward inclusion and representation but also to recognize the need to apply a decolonial epistemic orientation to rethink and inform research methods, agendas, and practices (Connell, 2007; de Sousa Santos, 2014). Over the years, the social and behavioral sciences have made progress in diversifying the field to produce more inclusive human subjects' research; however, research still predominantly stems from WEIRD contexts, and the whiteness point of view is yet conceived as a neutral framework (Clancy & Davis, 2019; Roberts & Mortenson, 2023). Kanazawa (2020) suggests that the problem should be addressed more logically and theoretically rather than empirically, as empirical evidence accumulates insights about the 'how' but does not disentangle the 'why.' Such progress is achieved through deductive reasoning, not purely inductive reasoning.

Conceptually, the study of bias-motivated violence and hate crimes requires clarity and the establishment of shared definitional boundaries applicable across disciplines and

various contexts (Brudholm, 2016). That would enable greater comparability of research, which is currently somewhat uncertain. Accounting for and tracking non-criminal bias events –also known as microaggressions, bias incidents, or hate incidents– is crucial, as they can cause harm or exclusion and have societal impacts, irrespective of whether they meet the criteria for criminal offenses (Farrell & Lockwood, 2023; Schweppe, 2021). The studies presented in this dissertation adopt a broad epistemological perspective that encompasses both criminal and non-criminal bias incidents through a social and behavioral lens, rather than exclusively focusing on criminality, given the ambiguous nature of the hate crime construct itself (i.e., the connection between hate and crime). Such an approach can align with a more comprehensive or policy-oriented definition, thereby contributing to the advancement of our understanding, given the inconsistency in the threshold for criminalization and the lack of clear epistemological grounding. Simultaneously, it allowed me to cover in Study 1 the core research on bias-motivated hate crimes and to synthesize and bridge key research from various disciplines and related areas, even when they did not directly focus on hate crime, facilitating a more thorough understanding of the complexity of bias-motivated violence. This effort can help advance our comprehension, even in the presence of certain gaps or ongoing challenges unsolved or unaddressed for research so far. In the empirical articles, the self-reported methodology, which involved directly asking two underrepresented groups about their experiences, made it possible to explore bias victimization events that otherwise would have remained obscure.

The findings regarding the population under study in Catalonia generally align with previous research. However, they also introduce nuances to the current evidence and provide further insights in different settings by including physical bias attacks as an adverse experience. Study 2 explored a comprehensive set of ACEs and their association with suicide while considering the SM status in a sample of undergraduate students. Meanwhile, Study 3 and Study 4 focused on analyzing self-reported victimization experiences of individuals with ID.

SGMs are often exposed to a higher risk of negative experiences in childhood and victimization throughout their lifetime than their non-minority counterparts (McKay et al., 2019). Meta-analytical studies have revealed that individuals belonging to the LGBTQI+ community endure a significantly higher number of victimization experiences throughout

their lives compared to their heterosexual counterparts (Bellis et al., 2019; Brindle et al., 2022; Friedman et al., 2011; Katz-Wise & Hyde, 2012). This includes incidents during childhood and adolescence perpetrated by peers and caregivers, as well as instances of victimization in adulthood by various individuals. Consequently, these individuals often find themselves grappling with discrimination and violence daily. The consequences of such adversity are far-reaching, affecting biological correlates (Cooke et al., 2023) and leading to numerous psychosocial challenges during childhood, adolescence and adulthood (Collier et al., 2013, Mustanski et al., 2016; Pitoňák, 2017; Plöderl & Tremblay, 2015), and can be also transmitted across generations (Moog et al. 2022).

Study 2 focused on a severe consequence associated with early adversity: suicide attempts. This study surveyed undergraduate students and compared the experiences of SMS with their heterosexual peers. Despite numerous international studies on violence against SGMs in schools, colleges, or other samples of youth, this phenomenon remained under the radar in the Catalan context (Rios et al., 2022). The results indicated that undergraduate students in Catalonia who self-identified as SMS reported significantly higher rates of ACEs and a substantial rate of suicide attempts compared to their heterosexual counterparts. Notably, while some ACEs were relevant to suicide attempts, the variable most strongly associated with such attempts was the individual's minority status. The participants' self-reported sexual orientation was the variable used to capture their minority status. Although we use this variable to broadly encompass the social stress and stigma related to such an underrepresented group position, this approach does not allow for a further refined look at the different levels at which stigma operates. A further examination requires an anti-essentialism and intersectional lens (Cole, 2009), though operationalization difficulties and misunderstandings related to the construct's complexity have limited progress when moving from theory to quantitative applied research (Bauer et al., 2021; Else-Quest & Hyde, 2016a, 2016b; Guan et al., 2021). The composition of the SM sample, mostly bisexual women, also did not allow us to analyze intra-group differences, an important aspect stressed by meta-analytical reviews (Katz-Wise & Hyde, 2012; King et al., 2008; Ross et al., 2018; Thoma et al., 2021). This intricate interaction of variables deserves further attention in SM studies but is not addressed in the present study. In spite of these caveats, the comprehensive account of ACEs in Study 2, along with the matched technique, added additional value to the study that

can be useful for future prospective assessment of the relationship between ACEs, underrepresented group status, stigma, and health outcomes.

Regarding people with ID, studies examining multiple victimizations have suggested significant victimization rates, albeit there remains a dearth of further investigation. Based on existing research, our study delves into the notion that bias victimization is associated with other non-biased victimizations, serving as both a predictor and an outcome (Cuevas, 2021). The results of Study 3 support this idea by showing that bias victims significantly experience a higher number of victimization incidents in comparison with non-bias victims. Despite constituting only one-third of the sample (92 out of 260 individuals), they made up 68% of the poly-victimization group ( $n = 29$ ), highlighting that violence is overrepresented among this subgroup due to their higher experiences of different types of victimization in various life contexts.

Numerous assumptions behind narrowing or discriminatory understandings and practices concerning people with ID are rooted in eugenic schemas that have oppressed them until today, generating disabling social responses (McConnell & Phelan, 2022). While it is common to mention the high rates of victimization among people with ID, research on this topic often relies on assumptions and constructs, such as vulnerability, that take for granted that everyone with ID is inherently at a greater risk of victimization. However, this population is not necessarily at a greater risk than others, but rather specific contexts may contribute (or not) to a higher risk of experiencing adversity (Snipstad, 2022). To contribute to challenging such assumptions, Study 4 applied a clustering technique to identify unobserved patterns of victimization among people with ID. This study yielded novel evidence about the heterogeneity of victimization patterns within this group. The three identified classes differ in the distribution of victimization forms. The high victimization class (Class 1) and the medium victimization and low sexual victimization class (Class 2) showed distinct patterns. Sexual victimization is mainly concentrated in the first group. The largest group in the study, comprising more than half of the sample (52.3%), is the low-victimization class (Class 3). Among the different victimization forms in the low-victimization group, bias attacks and assault experiences (physical victimization) have higher probabilities compared to other victimizations, which have probabilities less than .10. These results provide a complementary understanding of the findings in Study 3,

demonstrating the usefulness of person-centered methods, such as LCA, to address the study of adversity and the heterogeneity of people's experiences (Rivera et al., 2017). Comparing the high victimization group with poly-victimization status reveals that, while there is a certain degree of agreement between the two techniques, LCA appears to provide a more precise classification due to the higher level of intra-group homogeneity and inter-group heterogeneity. As consequence, different methods to address poly-victimization may identify different victims, so that researchers should be aware of the implications of the method employed (Segura et al., 2018).

## 9. Thesis strengths and limitations

The present thesis has provided valuable insights that contribute to enhancing our understanding of bias-motivated violence, its relationship with other forms of victimization, and the negative consequences it can yield.

Study 1 comprehensively examined the literature on bias-motivated violence, proposing an epistemological framework to integrate current findings involving ethnic and racial minorities. This integrative narrative review relies on relevant theoretical frameworks to break down and connect existing knowledge, typically organized along hierarchical levels, due to the different focuses of the multiple disciplines addressing prejudice, discrimination, antisocial, and violent behavior. In this study, various aspects were analyzed and summarized, though some additional considerations need to be taken into account.

This type of review was chosen as the most suitable form for a knowledge synthesis vehicle, encompassing both theoretical and quantitative research on a broad topic (Cronin & George, 2023; Greenhalgh et al., 2018). Multiple disciplines and interdisciplinarity are common approaches to addressing bias-motivated violence or hate crime. However, the findings remained isolated from each other, which is why I identified the challenging need for this review. Due to the nature of the topic, which involves various levels of analysis, the lack of an accurate epistemological framework, and the scarcity of research outputs in some areas, there are challenges in achieving a more comprehensive understanding, particularly considering the scattered evidence and youthfulness of some subareas of research. The alternative would have been a systematic review, focusing on the main themes and synthesizing the findings rather than going beyond and attempting to provide a more nuanced understanding of the current knowledge. The strengths of this first study are at the same its limitations. The review covered various interrelated topics. Because of its ambitious purpose, it is unavoidable that there are some gaps and a lack of evidence to test empirically test or reflect on certain theoretical postulates.

The three research studies share similar limitations. The cross-sectional design, convenience sample, and retrospective self-reports suggest a lack of generalizability and representativeness. The studies are also susceptible to response and recall biases and do not

identify the temporal sequence of events (Coleman & Baldwin, 2023; Danese, 2020; Widom, 2019). Furthermore, it is important to acknowledge the absence of specific instruments for analyzing stigma and intersectionality. Although it presents many challenges, its applicability has not advanced as much as the theoretical postulates and underpinnings, especially in the latter.

On the bright side, Study 2 confirmed previous findings about the association between ACEs and suicide in SMs in different settings and populations. This study provided a wide-ranging assessment of the ACEs, expanding them to encompass other relevant types of experiences, such as bias victimization and cyberbullying experiences. ACEs questionnaire have become one the mainstream assessment tools for accounting for adversity. They have significantly improved over the years to be more comprehensive and accurate, but psychometrically still need refinement (Georgieva et al., 2022; Krinner et al., 2021). Study 3 and Study 4 are particularly valuable since they address a population that has receive limited research attention for various reasons related to difficulties in identifying the participants, recruiting them and gather a sample big enough to allow complex statistical models, and the lack of instruments especially designed to administered to them as well. These study dispute oversimplified and homogenizing ideas about the experiences or the always-talked-about vulnerability as intrinsic aspects linked to the lives of people with ID.

## 10. Implications for research and practice

Future research should aim to enhance our understanding of the social determinants of health among underrepresented populations, including intra-group variations. It should delve into the outcomes linked to life adversity and conduct further investigations into the roles of stigma, intergroup relations and processes, intra-group relations, and individual differences relevant to bias-motivated violence. Additionally, forthcoming studies should explore the interplay between online hate and bias-motivated violence.

Methodologically, future work should employ comprehensive measures to identify participants' intersection of multiple social identities or positions and proceed to conduct intersectionality research, which has been lacking in our knowledge base for years (Bauer, 2014; Bowleg, 2012). Although there has been a fruitful debate and the application of some quantitative intersectional methods (Guan et al., 2021), intersectionality is often cited but frequently misunderstood (Bauer et al., 2021). Categorizing participants by combining qualitatively very different groups as 'otherness' is a research practice that should be avoided.

The minority stress model is already a mainstream framework for understanding adverse health outcomes and heightened risk for psychopathology among SGMs (National Academies of Sciences, Engineering, and Medicine, 2020); nevertheless, further investigation is needed to understand the underlying biobehavioral pathways that contribute to the health disparities observed in epidemiological studies (Christian et al., 2021).

Life course perspectives are also a valuable framework for enhancing our understanding through a dynamic view of development and interdependence across time and place (Russell et al., 2023). Individuals actively shape social structures while also being influenced by them. However, longitudinal prospective studies are yet scarce, albeit this topic requires them to clarify the relationship between the exposure, the outcome, and the variables involved. We also need more ecological studies since when the observation unit is a particular population or community, this can yield unique insights. Similarly, it is crucial to investigate emerging data sources, leverage novel methodologies such as network analysis, and promote cross-cultural comparisons.



From a prevention and intervention standpoint, there is still a long way to go. We should explore alternative methods to prevent bias-motivated violence or hate crimes outside of criminal justice sanctions. This may involve community-based initiatives, educational programs, and awareness campaigns. We should also consider the role of third parties, such as community agencies or non-criminal justice institutions, in addressing the harm experienced by underrepresented groups who are victims of bias-based incidents. Exploring the provision of support and resources and improving reporting through alternative mechanisms, like third-party reporting centers, should require more attention. Effectively addressing the needs of underrepresented groups and bolstering their confidence in authorities is crucial for achieving any other objectives.

## **11. Conclusions**

The integrative review and the three research articles presented in this dissertation emphasize the need for a nuanced epistemological approach when dealing with the complexity and varying levels of analysis in examining prejudice, discrimination, and bias-related violence. It also encourages the establishment of bridges between these different levels of analysis. Although this is a challenging task, as research advances, we need to connect and integrate the findings from distinct disciplines and focus areas that often remain isolated, which hinders a better understanding. Despite the constraints mentioned throughout the articles and in the previous section, I honestly believe that I have offered some valuable insights and reflections that challenge certain dead ends and unfounded assumptions identified in the research, as well as recommendations to advance the topics under analysis along with some relevant findings. These contributions can be helpful for future research and can foster a more critical view, encouraging the adoption of best practices and research ethics.

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## 13. Appendices

### 13.1 Appendix A. Search terms: PubMed, ProQuest, PsycInfo, Scopus, and Web of Science (Study 1)

#### ProQuest

(TI,AB("hate crime") OR TI,AB("bias crime") OR TI,AB(bias-motivated) OR TI,AB(delinquency) OR TI,AB("criminal behavior") OR TI,AB(abuse) OR TI,AB(offender) OR TI,AB(offen\*e) OR TI,AB(victim\*) OR TI,AB(revictimi\*ation) OR TI,AB(violen\*) OR TI,AB(aggres\*) OR TI,AB(homicide) OR TI,AB(rape) OR TI,AB(assault) OR TI,AB(batter\*) OR TI,AB("hate groups") OR TI,AB("dramatic event") OR TI,AB("intergroup relation\*") OR TI,AB("intergroup contact") OR TI,AB("intergroup attitudes") OR TI,AB("social dominance orientation") OR TI,AB("right-wing authoritarianism") AND (TI,AB(racism) OR TI,AB("racial discrimination") OR TI,AB("ethnic discrimination") OR TI,AB("racially motivated") OR TI,AB("ethnically motivated") OR TI,AB("racial violence") OR TI,AB("racial hate") OR TI,AB("racial crime") OR TI,AB(racist) OR TI,AB(xenophob\*) OR TI,AB(islamophobia) OR TI,AB(anti-arab) OR TI,AB(anti-semitism) OR TI,AB(anti-black) OR TI,AB(anti-asian) OR TI,AB(anti-hispanic) OR TI,AB(anti-latino) OR TI,AB(anti-native) OR TI,AB(anti-gipsy) OR TI,AB(anti-roma) OR TI,AB(anti-traveller) OR TI,AB("racial trauma"))

#### PsycInfo

("hate crime".ti,ab. OR "bias crime".ti,ab. OR bias-motivated.ti,ab. OR delinquency.ti,ab. OR "criminal behavior".ti,ab. OR abuse.ti,ab. OR offender.ti,ab. OR offen\*e.ti,ab. OR victim\*.ti,ab. OR revictimi\*ation.ti,ab. OR violen\*.ti,ab. OR aggres\*.ti,ab. OR homicide.ti,ab. OR rape.ti,ab. OR assault.ti,ab. OR batter\*.ti,ab. OR "hate groups".ti,ab. OR "dramatic event".ti,ab. OR "intergroup relation\*".ti,ab. OR "intergroup contact".ti,ab. OR "intergroup attitudes".ti,ab. OR "social dominance orientation".ti,ab. OR "right-wing authoritarianism".ti,ab.) AND (racism.ti,ab. OR "racial discrimination".ti,ab. OR "ethnic discrimination".ti,ab. OR "racially motivated".ti,ab. OR "ethnically motivated".ti,ab. OR "racial violence".ti,ab. OR "racial hate".ti,ab. OR "racial crime".ti,ab. OR racist.ti,ab. OR xenophob\*.ti,ab. OR islamophobia.ti,ab. OR anti-arab.ti,ab. OR anti-semitism.ti,ab. OR anti-black.ti,ab. OR anti-asian.ti,ab. OR anti-hispanic.ti,ab. OR anti-latino.ti,ab. OR anti-native.ti,ab. OR anti-gipsy.ti,ab. OR anti-roma.ti,ab. OR anti-traveller.ti,ab. OR "racial trauma".ti,ab.)

## PubMed

("hate crime"[Title/Abstract] OR "bias crime"[Title/Abstract] OR "bias-motivated"[Title/Abstract] OR "delinquency"[Title/Abstract] OR "criminal behavior"[Title/Abstract] OR "abuse"[Title/Abstract] OR "offender"[Title/Abstract] OR "offen\*e"[Title/Abstract] OR "victim\*"[Title/Abstract] OR "revictimi\*ation"[Title/Abstract] OR "violen\*"[Title/Abstract] OR "aggress\*"[Title/Abstract] OR "homicide"[Title/Abstract] OR "rape"[Title/Abstract] OR "assault"[Title/Abstract] OR "batter\*"[Title/Abstract] OR "hate groups"[Title/Abstract] OR "dramatic event"[Title/Abstract] OR "intergroup relation\*"[Title/Abstract] OR "intergroup contact"[Title/Abstract] OR "intergroup attitudes"[Title/Abstract] OR "social dominance orientation"[Title/Abstract] OR "right-wing authoritarianism"[Title/Abstract]) AND ("racism"[Title/Abstract] OR "racial discrimination"[Title/Abstract] OR "ethnic discrimination"[Title/Abstract] OR "racially motivated"[Title/Abstract] OR "ethnically motivated"[Title/Abstract] OR "racial violence"[Title/Abstract] OR "racial hate"[Title/Abstract] OR "racial crime"[Title/Abstract] OR "racist "[Title/Abstract] OR "xenophob\*"[Title/Abstract] OR "islamophobia"[Title/Abstract] OR "anti-arab"[Title/Abstract] OR "anti-semitism"[Title/Abstract] OR "anti-black"[Title/Abstract] OR "anti-asian"[Title/Abstract] OR "anti-hispanic"[Title/Abstract] OR "anti-latino"[Title/Abstract] OR "anti-native"[Title/Abstract] OR "anti-gipsy"[Title/Abstract] OR "anti-roma"[Title/Abstract] OR "anti-traveller"[Title/Abstract] OR "racial trauma"[Title/Abstract])

## Scopus

TITLE-ABS-KEY("hate crime" OR "bias crime" OR "bias-motivated" OR "delinquen\*" OR "criminal behavior" OR "abuse" OR "offender" OR "offen\*e" OR "victim\*" OR "revictimi\*ation" OR "violen\*" OR "aggress\*" OR "homicide" OR "rape" OR "assault" OR "batter\*" OR "hate groups" OR "dramatic event" OR "intergroup relation\*" OR "intergroup contact" OR "intergroup attitudes" OR "social dominance orientation" OR "right-wing authoritarianism") AND TITLE-ABS-KEY("racism" OR "racial discrimination" OR "ethnic discrimination" OR "racially motivated" OR "ethnically motivated" OR "racial violence" OR "racial hate" OR "racial crime" OR "racist " OR "xenophob\*" OR "islamophobia" OR "anti-arab" OR "anti-semitism" OR "anti-black" OR "anti-asian" OR "anti-hispanic" OR "anti-latino" OR "anti-native" OR "anti-gipsy" OR "anti-roma" OR "anti-traveller" OR "racial trauma")

## Web of Science

```
((TI="hate crime" OR AB="hate crime") OR (TI="bias crime" OR AB="bias crime") OR (TI=bias-motivated OR AB=bias-motivated) OR (TI=delinquency OR AB=delinquency) OR (TI="criminal behavior" OR AB="criminal behavior") OR (TI=abuse OR AB=abuse) OR (TI=offender OR AB=offender) OR (TI=offen*e OR AB=offen*e) OR (TI=victim* OR AB=victim*) OR (TI=revictimi*ation OR AB=revictimi*ation) OR (TI=violen* OR AB=violen*) OR (TI=aggress* OR AB=aggress*) OR (TI=homicide OR AB=homicide) OR (TI=rape OR AB=rape) OR (TI=assault OR AB=assault) OR (TI=batter* OR AB=batter*) OR (TI="hate groups" OR AB="hate groups") OR (TI="dramatic event" OR AB="dramatic event") OR (TI="intergroup relation*" OR AB="intergroup relation*") OR (TI="intergroup contact" OR AB="intergroup contact") OR (TI="intergroup attitudes" OR AB="intergroup attitudes") OR (TI="social dominance orientation" OR AB="social dominance orientation") OR (TI="right-wing authoritarianism" OR AB="right-wing authoritarianism") AND ((TI=racism OR AB=racism) OR (TI="racial discrimination" OR AB="racial discrimination") OR (TI="ethnic discrimination" OR AB="ethnic discrimination") OR (TI="racially motivated" OR AB="racially motivated") OR (TI="ethnically motivated" OR AB="ethnically motivated") OR (TI="racial violence" OR AB="racial violence") OR (TI="racial hate" OR AB="racial hate") OR (TI="racial crime" OR AB="racial crime") OR (TI=racist OR AB=racist) OR (TI=xenophob* OR AB=xenophob*) OR (TI=islamophobia OR AB=islamophobia) OR (TI=anti-arab OR AB=anti-arab) OR (TI=anti-semitism OR AB=anti-semitism) OR (TI=anti-black OR AB=anti-black) OR (TI=anti-asian OR AB=anti-asian) OR (TI=anti-hispanic OR AB=anti-hispanic) OR (TI=anti-latino OR AB=anti-latino) OR (TI=anti-native OR AB=anti-native) OR (TI=anti-gipsy OR AB=anti-gipsy) OR (TI=anti-roma OR AB=anti-roma) OR (TI=anti-traveller OR AB=anti-traveller) OR (TI="racial trauma" OR AB="racial trauma"))
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*Note.* Polyglot Search Translator was utilized to ensure the equivalence of searches across the databases (Clark et al., 2020).

Clark, J. M., Sanders, S., Carter, M., Honeyman, D., Cleo, G., Auld, Y., Booth, D., Condron, P., Dalais, C., Bateup, S., Linthwaite, B., May, N., Munn, J., Ramsay, L., Rickett, K., Rutter, C., Smith, A., Sondergeld, P., Wallin, M., Jones, M., ... Beller, E. (2020). Improving the translation of search strategies using the Polyglot Search Translator: A randomized controlled trial. *Journal of the Medical Library Association, 108*(2), 195–207. <https://doi.org/10.5195/jmla.2020.834>

13.2. Appendix B. ACE score from the ACE-IQ – Frequency Version (Study 2)

Category	Q	Written question	Response
<b>Physical abuse</b>	A3 A4	Did a parent, guardian or other household member spank, slap, kick,punch or beat you up <b>many times</b> ? OR Did a parent, guardian or other household member hit or cut you withan object, such as a stick (or cane), bottle, club, knife, whip, etc., <b>manytimes</b> ?  Yes No	
<b>Emotional abuse</b>	A1 A2	Did a parent, guardian or other household member yell, scream orswear at you, insult or humiliate you <b>many times</b> ? OR Did a parent, guardian or other household member threaten to, or actually, abandon you or throw you out of the house <b>many times</b> ?  Yes No	
<b>Contact sexual abuse</b>	A5 A6 A7 A8	Did someone <b>ever</b> touch or fondle you in a sexual way when you didnt want them to? OR Did someone <b>ever</b> make you touch their body in a sexual way whenyou did not want them to? OR Did someone <b>ever</b> attempt oral, anal, or vaginal intercourse with youwhen you did not want them to? OR Did someone <b>ever</b> actually have oral, anal, or vaginal intercourse withyou when you did not want them to?  Yes No	
<b>Alcohol and/or drug abuser in the household</b>	F1	Did you live with a household member who was a problem drinker oralcoholic, or misused street or prescription drugs?  Yes No	
<b>Incarcerated household member</b>	F3	Did you live with a household member who was ever sent to jail orprison?  Yes No	
<b>Someone chronically depressed, mentally ill, institutionalized or suicidal</b>	F2	Did you live with a household member who was depressed, mentally illor suicidal?  Yes No	

<b>Householdmember treated violently</b>	F6 F7 F8	<p>Did you see or hear a parent or household member in your home being yelled at, screamed at, sworn at, insulted or humiliated <b>many times</b>?</p> <p>OR</p> <p>Did you see or hear a parent or household member in your home being slapped, kicked, punched or beaten up a <b>few times or many times</b>?</p> <p>OR</p> <p>Did you see or hear a parent or household member in your home being hit or cut with an object, such as a stick (or cane), bottle, club, knife, whip etc. a few times or many times?</p> <p>Yes No</p>	
<b>One or no parents, parental separation or divorce</b>	F4 F5	<p>Were your parents ever separated or divorced? OR</p> <p>Did your mother, father or guardian die?</p> <p>Yes No</p>	
<b>Emotional neglect</b>	P1 P2	<p>Did your parents/guardians rarely or never understand your problems and worries?</p> <p>OR</p> <p>Did your parents/guardians rarely or never really know what you were doing with your free time when you were not at school or work?</p> <p>Yes No</p>	
<b>Physical neglect</b>	P3 P4 P5	<p>Did your parents/guardians not give you enough food many times even when they could easily have done so? OR</p> <p>Were your parents/guardians many times too drunk or intoxicated by drugs to take care of you?</p> <p>OR</p> <p>Did your parents/guardians not send you to school many times even when it was available?</p> <p>Yes No</p>	

<b>Bullying</b>	V1	<p>Were you bullied many times?</p> <p>Yes No</p>	
<b>Community violence</b>	V4 V5 V6	<p>Did you see or hear someone being beaten up in real life many times? OR</p> <p>Did you see or hear someone being stabbed or shot in real life many times?</p> <p>OR</p> <p>Did you see or hear someone being threatened with a knife or gun in real life many times?</p> <p>Yes No</p>	
<b>Collective violence</b>	V7 V8 V9 V10	<p>Were you ever forced to go and live in another place due to any of these events?</p> <p>OR</p> <p>Did you ever experience the deliberate destruction of your home due to any of these events?</p> <p>OR</p> <p>Were you ever beaten up by soldiers, police, militia, or gangs? OR</p> <p>Was a family member or friend ever killed or beaten up by soldiers, police, militia, or gangs?</p> <p>Yes No</p>	



13.3. Appendix C. Frequencies of suicide attempts by sexual orientation (Study 2)

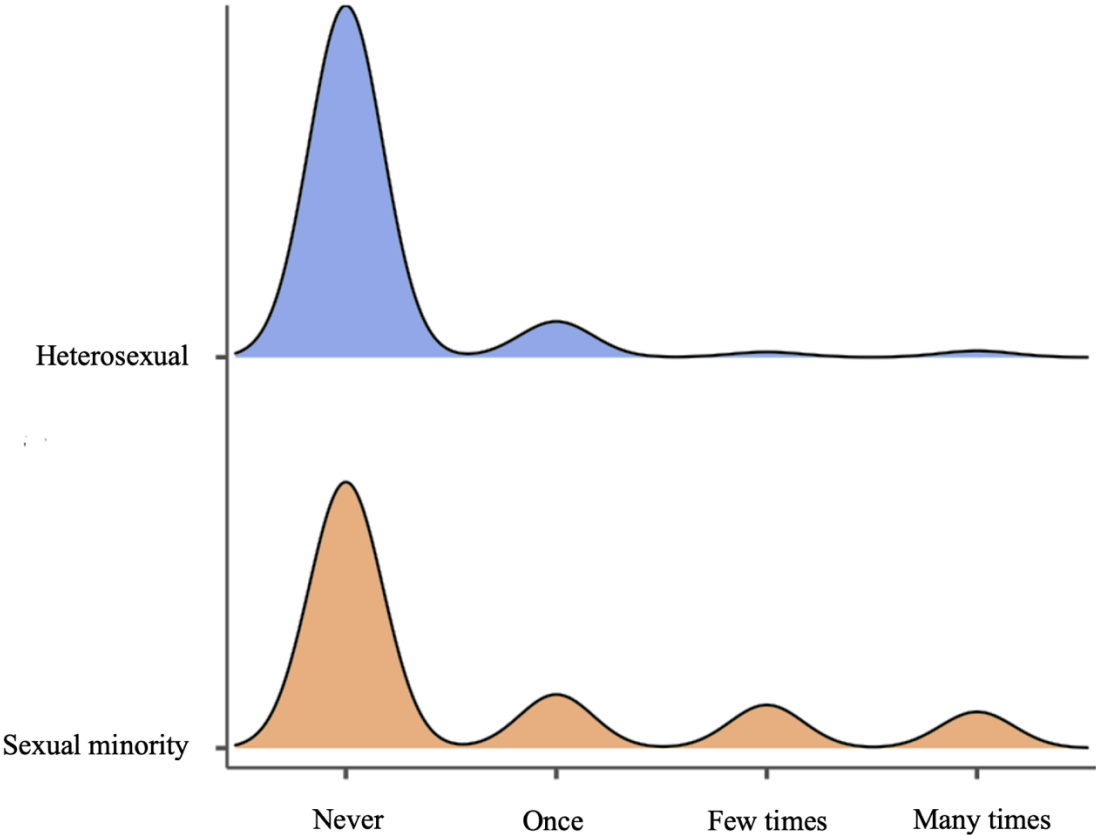
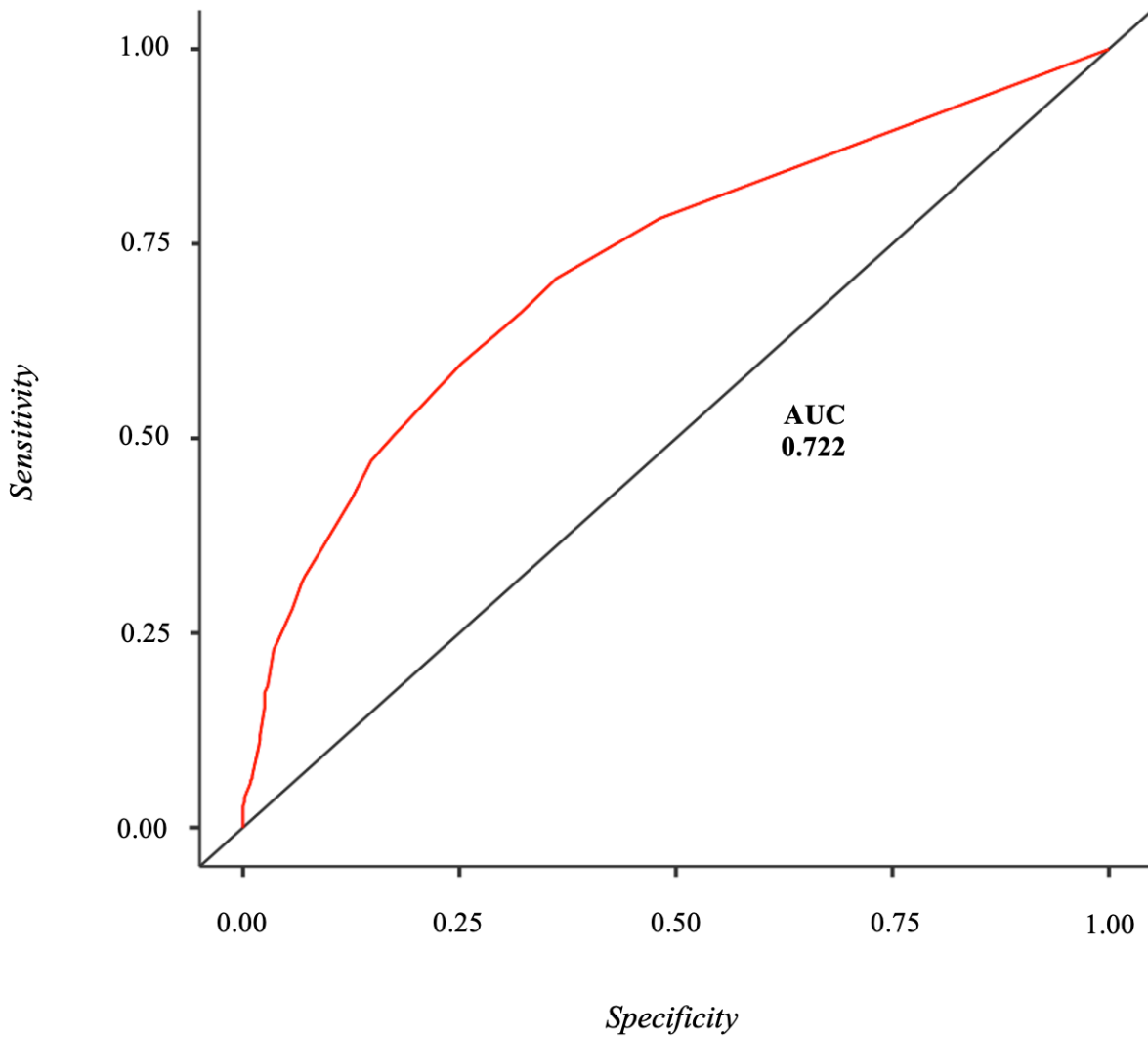


Figure 6. Suicide attempts 4-point Likert scale by participants' sexual orientation.

### 13.4. Appendix D. Receiver Operating Characteristic (ROC) curve (Study 2)



**Figure 7.** ROC curve and Area Under the Curve (AUC) for assessing the optimal cut point of the selected logistic regression model.

**13.5. Appendix E. Example of pictograms used during the interview: Bias attack item**

**(Study 3 & 4)**

At any time in your life, have you been hit or attacked because of your skin color, religion, or where your family comes from? Because of your disability or a physical problem you have? Or because someone said you were homosexual?

*¿En algun moment de la teva vida, et van copejar o atacar pel teu color de pell, religió, la procedència de la teva família, per algun problema físic o perquè algú va dir que eres homosexual?*

*¿En algún momento de tu vida te golpearon o atacaron por tu color de piel, religión, la procedencia de tu familia, por algún problema físico o porque alguien dijo que eras homosexual?*

