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Profiles of Violence Victimization and Mental Health Outcomes among LGBTQ Survivors in Illinois: A Cluster Analysis

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Profiles of Violence Victimization and Mental Health Outcomes among LGBTQ+ Survivors in Illinois

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Biography

The author was born in Cincinnati, Ohio, April 21, 1994. She graduated from St. Ursula Academy, in Cincinnati. She received her Bachelor of Arts degree from the University of Notre Dame in 2012. She received her Master of Arts degree in Clinical-Community Psychology from DePaul University in 2019.

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Abstract

Despite legal and social progress, the LGBTQ+ community faces persistent vulnerability to different forms of violence and negative life experiences, including adverse childhood experiences (ACES) and bigotry motivated violence, as well as gender-based violence (GBV). Consistent with the Minority Stress Model, exposure to these experiences are associated with negative mental health outcomes for LGBTQ+ individuals. Traditionally, research has focused on subpopulations when examining these relationships, and has often failed to account for the ways individuals experience multiple types of violence across the lifespan, and how this may influence development of mental health problems. This study (n=204) uses the Minority Stress Model to explore how different profiles of violence exposure may relate to mental health outcomes among LGBTQ+ survivors in Illinois. Using a latent class analysis, four classes emerged: Low Adult Exposure, Low Overall Exposure, High Adult GBV (gender-based violence), and High Overall Exposure. Results of a 3-step regression indicated that when controlling for racial/ethnic minority status, gender minority status, bigotry motivated violence exposure, adaptive coping, and maladaptive coping, class membership did not significantly predict depression scores, but did significantly predict PTSD scores. Notably, the class with Lower Overall Exposure had significantly lower PTSD scores when compared to the Lower Adult Exposure class, as well as the High Adult GBV class. The Lower Overall Exposure class also demonstrated significantly lower depression scores compared to the High Adult GBV class. Implications of these findings are discussed.

Keywords: Gender based violence, sexual minority, gender minority, depression, post-traumatic stress disorder

Profiles of Violence Victimization and Mental Health Outcomes among LGBTQ+ Survivors in Illinois

The LGBTQ+ (Lesbian, Gay, Bisexual, Transgender, Queer/Questioning) community is a diverse and heterogeneous group of individuals and sub-communities. Though there has been some increase in support and acceptance of the LGBTQ+ community, the history of anti-LGBTQ+ bias ingrained within legal and medical policy in the United States has left a persistent legacy of marginalization and oppression that affects LGBTQ+ individuals' daily lives (Peterson & Panfil, 2014). Significant evidence suggests LGBTQ+ individuals experience disproportionate rates of multiple forms of violence and other stressors across the lifespan, with subsequent high risk of mental health problems related to this violence exposure (Conlin et al., 2017; Long et al., 2007; McLaughlin et al., 2012; Meyer, 2003; Peterson & Panfil, 2014; Schneeberger et al., 2014). Generally, research on the relationship between victimization and mental health have focused on individual forms of victimization, which may overlook the potential impact of different kinds of violence victimization among LGBTQ+ individuals (Schneeberger et al., 2014). Therefore, the purpose of this study is to examine what forms of violence are likely to co-occur among LGBTQ+ individuals, and how these profiles of violence exposure are related to mental health problems within the community.

Adverse Childhood Experiences

There is some evidence that LGBTQ+ individuals experience higher rates of adverse childhood experiences (ACEs) such as physical abuse from caregivers, sexual assault, homelessness or being rejected from one's home, bullying and peer aggression, and dating violence (Higa et al., 2014; McLaughlin et al., 2012; Ovenden, 2011; Patterson, 2016; Peterson & Panfil, 2014; Schneeberger et al., 2014; Todahl et al., 2009).

Some estimates include 20-48% prevalence of childhood abuse victimization among LGBTQ+ individuals (Schneeberger et al., 2014), 20-82% bullying victimization (Peterson & Panfil, 2014), and that around 46-51% of LGBTQ+ individuals have experienced some form of ACEs (McLaughlin et al., 2012). Risk for childhood abuse and trauma may be particularly high for bisexual individuals and Black members of the LGBTQ+ community (Bostwick et al., 2019; McLaughlin et al., 2012; Schneeberger et al., 2014).

LGBTQ+ youth who experience childhood victimization and adverse childhood experiences are also at increased risk of suicidality, substance use, depression, anxiety, Post-Traumatic Stress Disorder (PTSD), eating disorders, and poor academic achievement (McLaughlin et al., 2012; Peterson & Panfil, 2014; Schneeberger et al., 2014). LGBTQ+ individuals who experience victimization or trauma in childhood are also at high risk for re-victimization in adulthood (Schneeberger et al., 2014). Furthermore, given persistent stereotypes that position LGBTQ+ identity as a pathological response to childhood sexual assault (CSA), many LGBTQ+ individuals who have experienced CSA thus experience stress, identity doubt or questioning, shame, and the sense that they must hide either their LGBTQ+ identity or their survivor status to not reinforce this narrative (Ovenden, 2011).

Discrimination and Bigotry Motivated Violence

LGBTQ+ individuals also experience high rates of discrimination, harassment, and violence within school, family, romantic, community, and religious spaces, and may experience discrimination from healthcare providers and law enforcement as well (Battle et al., 2017a, 2017b; Coston, 2019; Higa et al., 2014; Long et al., 2007; Lyons et al., 2016; Meyer, 2012; Pastrana, et al., 2017; Reisen et al., 2013). Discrimination can vary in

different settings, and individuals may experience unique discrimination based on the intersection of their LGBTQ+ identity and other identities; for example, bisexual women and transgender individuals in particular report unique forms of discrimination related to housing, poverty, and sexual assault, and may be unable to utilize LGBTQ+ community spaces as supportive and protective due to discrimination and distrust within these spaces (Calton et al., 2016; Davidson & Bi Academic Intervention, 1997; Peterson & Panfil, 2014). LGBTQ+ individuals of color, particularly Black LGBTQ+ individuals, similarly report experiencing racial discrimination within LGBTQ+ spaces and anti-LGBTQ+ discrimination in cultural spaces, meaning navigating supportive spaces to cope with experiences of discrimination significantly difficult (Battle et al., 2017a, 2017b; Bowleg, 2013; Pastrana et al., 2017). LGBTQ+ individuals of color also face specific forms of discrimination based on the intersections of their racial/ethnic identity and LGBTQ+ identity, such as Black LGBTQ+ individuals being perceived as uniquely hypersexual or damaging to their communities' reputations and connections due to their LGBTQ+ identity and gender nonconformity (Bowleg, 2013; Meyer, 2012). Additional risk for discrimination for LGBTQ+ identity have been discussed, specifically that gender nonconformity, higher visibility of LGBTQ+ identity, and racial/ethnic minority status place individuals at higher risk for anti-LGBTQ+ discrimination (Meyer, 2012; Reisen et al., 2013).

Discrimination against LGBTQ+ people often occurs through verbal assault, denial of resources or opportunities, or other methods, as well as instances of physical violence. Estimates of victimization of physical assault victimization among LGBTQ+ people vary, but there is evidence that LGBTQ+ people are at higher risk of violence

exposure from strangers, family members, acquaintances, and law enforcement compared to their cisgender, heterosexual peers (Bostwick et al., 2019; Jenness et al., 2019; Lyons et al., 2015, 2016; Mendez, 1996; Meyer, 2012). Victimization by hate crimes, or bigotry motivated violence, is particularly difficult to estimate for LGBTQ+ individuals, given a variety of factors. For example, anti-LGBTQ+ violence is not always considered a form of hate crime by legislation, and so violence motivated by sexuality or gender identity may not be noted as such in police reports (Peterson & Panfil, 2014). In general, police reports are not the most reliable estimates of bigotry motivated violence, as this form of violence is under-reported to police (Peterson & Panfil, 2014). Acknowledging these limitations, in the United States, estimates of bigotry motivated violence based on sexual orientation is around 25% of LGBQ individuals, while estimates from surveys and police reports of violence motivated by gender identity ranges from 15-50% of transgender individuals (Peterson & Panfil, 2014).

Violence motivated by bigotry related to sexual orientation or gender identity is often more violent than other forms of assault and is often perpetrated by strangers (including groups of strangers) in public (Peterson & Panfil, 2014). Risk for bigotry motivated violence varies, but there is evidence that gay men, transgender women (particularly transgender women of color), racial and ethnic minority individuals, those engaged in sex work, and those more visibly identified as LGBTQ+ (e.g., more gender nonconforming, those who are more "out," those at LGBTQ+-themed events) are more likely to be targeted (Peterson & Panfil, 2014). Intersections of risk should also be considered; Meyer (2012) for example discusses how Black butch lesbians are specifically targeted for anti-LGBTQ+ violence due to the intersection of their race,

gender, sexuality, and gender nonconformity. Anti-LGBTQ+ violence and discrimination are linked to higher rates of depression, anxiety, suicidality, substance use, anger and fear, relationship problems, negative views about the world and other people, internalized homophobia, and difficulties with one's identity (Higa et al., 2014; Peterson & Panfil, 2014). Anti-LGBTQ+ violence may have unique negative impacts compared to other forms of discrimination, given that even when LGBTQ+ individuals do not experience victimization directly and rather *hear* about anti-LGBTQ+ violence, this can also lead to feelings of anger, fear, and a sense of inferiority (Meyer, 2003; Peterson & Panfil, 2014). These vicarious experiences may be partially related to how anti-LGBTQ+ violence is often perpetrated due to larger societal messages about LGBTQ+ individuals creating or maintaining problems in society, motivating some individuals to enforce gendered norms upon those who violate social rules as a form of maintaining social control (Meyer, 2012; Peterson & Panfil, 2014).

Adult Sexual Assault

Rates of sexual violence exposure are disproportionately high among members of the LGBTQ+ community; for example, in one survey, 44% of lesbian women, 61% of bisexual women, 26% of gay men, and 37% of bisexual men reported experiencing rape, physical violence, or stalking from an intimate partner in their lifetime (NISVS, 2010). Although less examination on transgender and nonbinary populations has been carried out, many believe this population is at unique and significant risk as well (Bornstein et al., 2006; Todahl et al., 2009). Populations at particular risk for sexual assault within the community include women, particularly bisexual women as well as transgender women who are incarcerated in men's prisons (Bostwick et al., 2019; Jenness et al., 2019; Koon-Magnin & Schulze, 2016; Long et al., 2007; Lyons et al., 2015; NISVS, 2010; Todahl et

al., 2009). There are multiple stereotypes and cultural norms surrounding LGBTQ+ identity that may affect survivors' perception of their experiences; for example, LGBTQ+ individuals are stereotyped as being hypersexual, disturbed, and predatory, which may cast additional doubt on survivors' perceptions of their own culpability during an assault (Bornstein et al., 2006).

Survivors of sexual assault have heterogeneous experiences, but generally sexual assault risk is increased by different axes of marginalization, including gender, socioeconomic status, sexuality, and race/ethnicity (Gill, 2018; Kennedy et al., 2012). Sexual assault is a gendered issue, and those who violate norms related to gender and sexuality often receive more blame for assault than others (Jenness et al., 2019; Koon-Magnin & Schulze, 2016; Patterson, 2016; Schulze & Koon-Magnin, 2017). For example, gay men victimized by other men may be perceived to have experienced more pleasure and thus less trauma than heterosexual women victimized by men, and bisexual women may be particularly blamed due to stereotypes related to promiscuity, both of which may negatively impact survivors' perceptions of the event and their mental health (Koon-Magnin & Schulze, 2016; Long et al., 2007). Survivors of sexual assault, including LGBTQ+ survivors, may have a variety of experiences after the event, and these often include PTSD, anxiety, depression, increased substance use, negative self-image, internalized blame, fearing for safety, and increased risk of re-victimization in the future (Gill, 2018; Kaukinen & DeMaris, 2009; Kennedy et al., 2012; Long et al., 2007). Survivors of assault may also have their understanding of the world shifted, where they perceive other people to be more dangerous than before (Kaukinen & DeMaris, 2009). LGBTQ+ individuals experience similar negative outcomes compared to cisgender,

heterosexual survivors but may experience these outcomes more severely, and they may also struggle with their sexual and gender identity given the gendered nature of sexual assault (Long et al., 2007; Ovenden, 2011).

Intimate Partner Violence

Early feminist theories of intimate partner violence (IPV) often presumed that this form of violence only occurred within the context of relationships between heterosexual, cisgender individuals, but more recently, efforts have been made to increase understanding of IPV within relationships between LGBTQ+ individuals (Calton et al., 2016; Creek & Dunn, 2011; Merlis & Linville, 2006; Ristock, 2001; Todahl et al., 2009). Some estimates for IPV victimization within the LGBTQ+ community range from 28-83% of individuals experiencing IPV, and generally research is consistent that LGBTQ+ individuals experience IPV at rates similar to or higher than cisgender, heterosexual peers (Calton et al., 2016; Coston, 2017; Long et al., 2007; Merlis & Linville, 2006). Rates may also be higher among women in the LGBTQ+ community (particularly bisexual women), LGBTQ+ people of color, and transgender individuals (Bornstein et al., 2006; Calton et al., 2016; Coston, 2017, 2019; Cruz, 2003; Guadalupe-Diaz & Jasinski, 2016; Merrill & Wolfe, 2000; Shorey et al., 2018).

IPV within LGBTQ+ relationships is uniquely influenced by homophobia, biphobia, and transphobia, as internalized stigma may impact perpetrators' behavior, and experiences of discrimination may leave victims vulnerable to further victimization (Bornstein et al., 2006; Shorey et al., 2018). Abusive partners of LGBTQ+ individuals also utilize anti-LGBTQ+ narratives as a part of psychological and emotional abuse, such as misgendering, destroying gender affirming clothing, denying one's gender identity or

sexuality, threatening to out partners, and claiming that other people will never love or believe the victim due to LGBTQ+ identity (Bornstein et al., 2006; Calton et al., 2016; Guadalupe-Diaz & Jasinski, 2016). LGBTQ+ survivors of IPV often experience similar forms of violence compared to heterosexual, cisgender survivors as well, such as stalking, sexual assault, physical abuse, financial control, isolation, and patterns of behavior that cycle through phases of violence and placation (Bornstein et al., 2006; Coston, 2017; Merrill & Wolfe, 2000).

IPV victimization is generally associated with self-blame, PTSD and other mental health issues, physical injuries, and problems with sleep and concentration (Leone et al., 2007; Merrill & Wolfe, 2000). Individuals who experience IPV are also at risk for future victimization at the hands of an intimate partner (Sabina et al., 2012). Though LGBTQ+ survivors experience these negative effects of IPV, abuse within same-gender relationships is often dismissed due to stereotypes, including the notion that women cannot perpetrate abuse, gay men are not masculine enough to enact serious violence upon others, and that violence in LGBTQ+ relationships is more likely to be mutual due to the perceived lack of gender imbalance (Calton et al., 2016; Merlis & Linville, 2006; Merrill & Wolfe, 2000).

The Minority Stress Model

Historically, the health disparities experienced by the LGBTQ+ community such as higher rates of HIV, mood and eating disorders, PTSD, substance use, and suicidality have been viewed as evidence of inherent pathology or deviance within LGBTQ+ identity (Meyer, 2003). In response to this pathologizing lens, many scholars and activists have argued that these disparities may instead be explained by the individual and

systemic discrimination and violence that LGBTQ+ individuals experience, such as the forms outlined above (Bostwick et al., 2019; Higa et al., 2014; McLaughlin et al., 2012; Meyer, 2003; Shorey et al., 2018). Specifically, Meyer (2003) proposed that LGBTQ+ individuals experience minority stressors that negatively impact their mental health, and exposure to these minority stressors explains the disproportionate rates of mental health problems among LGBTQ+ individuals. Meyer (2003) proposed four types of minority stress: discrimination, expectations of discrimination, concealment, and internalization. Discrimination refers to concrete instances of prejudice, rejection, or violence from others related to one's minority identity, such as exposure to bigotry motivated violence, misgendering, denial of housing or healthcare due to LGBTQ+ status, or rejection from family members after disclosure of LGBTQ+ identity (Meyer, 2003). However, even when individuals are not directly experiencing discrimination, they may still experience expectations of discrimination, such as awareness, anxiety, or thoughts related to discrimination; LGBTQ+ individuals for example may experience stress related to hearing about others who have experienced discrimination, worrying about potential rejection from others, or otherwise navigating spaces where there is the possibility of experiencing discrimination due to LGBTQ+ identity (Meyer, 2003). Given discrimination and expectations of discrimination, many LGBTQ+ individuals may actively or passively engage in concealment of their LGBTQ+ status from members of their family, friends, significant others, coworkers, care providers, or others (Meyer, 2003). Finally, minority stress experiences often lead to internalization of stigma, wherein an individual believes the negative messages they receive about their minority identity (Meyer, 2003). Experiencing these minority stressors along with general stressors

can thus lead to mental health issues, though positive social support and coping skills may mitigate the negative effects of minority stress (Higa et al., 2014; Meyer, 2003).

Several researchers have applied this minority stress model to mental and physical health issues among LGBTQ+ individuals, demonstrating significant evidence that discrimination, prejudice, and violence on the basis of LGBTQ+ identity from multiple kinds of individuals and systems lead to negative mental health problems (Binion & Gray, 2020; Burton et al., 2013; Conlin et al.,2017; Finneran & Stephenson, 2013; Garthe et al., 2018; Gold et al., 2011; Higa et al., 2014; McCarthy et al., 2014; Meyer, 2003). For example, research has linked PTSD, depression, suicidal ideation and behavior, substance use, and sleep issues among LGBTQ+ people to minority stressors such as discrimination, expectations of discrimination, and internalized stigma (Binion & Gray, 2020; Burton et al., 2013; Conlin et al., 2017; Finneran & Stephenson, 2013; Garthe et al., 2018; Gold et al., 2011; Hatchel et al., 2018; Kolp et al., 2019; McCarthy et al., 2014; Robinson & Rubin, 2015; Solomon et al., 2019). There are also unique forms of minority stress among certain members of the LGBTQ+ community. For example, transgender individuals experience unique gender related minority stressors that cisgender members of the community do not encounter, and when individuals hold multiple minority identities such as racial minority status, they may experience multiple and intersecting forms of minority stress (Binion & Gray, 2020; Finneran & Stephenson, 2013; Kolp et al., 2019; Longobardi & Badenes-Ribera, 2017). Research is particularly consistent for example that Black LGBTQ+ individuals, especially Black bisexual individuals, experience minority stressors related to antiblackness and stressors related to LGBTQ+ identity, which may contribute to overall worse mental health outcomes (Binion & Gray,

2020; Finneran & Stephenson, 2013). Black individuals and bisexual individuals have also reported higher internalized stigma in some studies, which may indicate that they are experiencing more significant effects related to minority stress (Finneran & Stephenson, 2013). Research on minority stress among LGBTQ+ individuals has also focused on minority stress (particularly internalization) and risk of re-victimization or perpetration, with less consideration of overall mental health outcomes related to IPV (Binion & Gray, 2020; Longobardi & Badenes-Ribera, 2017; Swan et al., 2019).

An additional compounding factor for LGBTQ+ mental health is that along with disproportionate exposure to violence and minority stress, LGBTQ+ individuals often do not have the social support from formal or informal sources to buffer against the effects of trauma (Higa et al., 2014). Throughout childhood and adulthood, LGBTQ+ individuals often experience family rejection or threat/expectation of rejection, with many even being thrown out of their homes or forced into conversion therapy programs upon disclosure of LGBTQ+ identity (Higa et al., 2014). Early life experiences with unfriendly or unsupportive school systems may impact LGBTQ+ individuals' sense of belonging and social support, and may have long term impacts on their perceptions of the world and of their access to support (Hatchel et al., 2018). LGBTQ+ individuals may also have less access to community spaces that are associated with positive mental health outcomes and social support, such as religious spaces, which are frequently more hostile to LGBTQ+ individuals (Higa et al., 2014). Similarly, spaces designed for support and community among different groups may often be constructed for cisgender, heterosexual members of these communities, and so LGBTQ+ individuals may feel they have to conceal their identity or endure microaggressions or prejudice to connect with others (Balsam et al.,

2011; Bowleg, 2013; Brennan et al., 2013; Parmenter et al., 2020; Reisen et al., 2013). Community with other LGBTQ+ individuals may be limited based on geographic location, and LGBTQ+ spaces have similarly challenging dynamics, as cisgender, white, upper- and middle-class men may be prioritized compared to other members of the community (Bowleg, 2013; Nero, 2014; Reisen et al., 2013).

Similarly, LGBTQ+ individuals may not experience accessible and effective support from service providers related to mental health and violence exposure. Historical biases against LGBTQ+ individuals and identity have been embedded in the medical and criminal justice systems of the United States through policies that criminalized and pathologized LGBTQ+ identity (Lyons et al., 2016; Peterson & Panfil, 2014). This has had lingering impacts through discriminatory policies, lack of training on LGBTQ+ issues, and police brutality (Lyons et al., 2016; Peterson & Panfil, 2014). Services are thus often set up with biases assuming certain gender norms, and legislation and policies may not always be written in ways that explicitly protect and include LGBTQ+ individuals, leaving significant room for individual bias of officials to affect outcomes of LGBTQ+ individuals seeking support (Calton et al., 2016; Lyons et al., 2016; Patterson, 2016; Peterson & Panfil, 2014). LGBTQ+ individuals also experience unique barriers to seeking support related to fears of having their identity revealed through the process of seeking support, and the possibility of support being rescinded if LGBTQ+ identity is revealed to providers or individuals (Bornstein et al., 2006; Peterson & Panfil, 2014; Williams et al., 2016).

LGBTQ+ individuals also may be limited in their ability to seek support from both informal and formal supports due to anti-LGBTQ+ bias from potential support

providers, expectations of this bias, knowledge of gender segregation of services, the desire to protect the image of the LGBTQ+ community, lack of support from families due to LGBTQ+ identity, stereotypes associated with LGBTQ+ identity and violence, navigating the "double closet" of disclosing both LGBTQ+ identity and survivor status, and recognizing abuse in the context of LGBTQ+ identity or relationships (Guadalupe-Diaz & Jasinski, 2016; Hardesty et al., 2011; Merlis & Linville, 2006; Merrill & Wolfe, 2000). Given the importance of social support for mitigating the effects of minority stress on mental health, the barriers LGBTQ+ individuals face for seeking support from their informal networks or from formal providers may indicate more severe mental health problems than if they were able to access appropriate support.

Overall, based on existing literature, it is clear that LGBTQ+ individuals experience high rates of a variety of victimizations, including adverse childhood experiences (Higa et al., 2013; McLaughlin et al., 2012), discrimination and physical violence motivated by bigotry (Bostwick et al., 2019; Peterson & Panfil, 2014), sexual assault (NISVS, 2010; Todahl et al., 2009), and intimate partner violence (Calton et al., 2016; Coston, 2017, 2019; Guadalupe-Diaz & Jasinski, 2016). In addition, many individuals experience multiple forms of victimization and/or experience victimization multiple times throughout their life (Schneeberger et al., 2014). These experiences are associated with negative mental health in general, and for LGBTQ+ individuals, these mental health problems may be further exacerbated by effects of minority stress and lack of social support (Bostwick et al., 2019; Calton et al., 2016; Higa et al., 2014; Meyer, 2003). LGBTQ+ individuals have less access to institutional resources such as police, medical care, and mental healthcare due to systemic biases and discrimination, and their

access to informal social support may be limited by lack of family and community support (Bowleg, 2013; Higa et al., 2014; Lyons et al., 2016; Peterson & Panfil, 2014).

However, there are several notable gaps in the literature that limit our ability to understand the impact of violence on mental health in the LGBTQ+ community. For example, though literature is clear on the negative impacts of experiencing significant victimization, there is less clarity on how different forms of victimization may uniquely impact mental health. There is evidence in the general population that PTSD and depression are more common among survivors of sexual assault and intimate partner violence compared to the general population and compared to individuals who have experienced other forms of violence (Nathanson et al., 2012; Sidran Institute, 2018). These studies have primarily been conducted with cisgender women, and there is less evaluation on the ways in which different profiles of violence victimization may impact mental health for the LGBTQ+ community. Even when LGBTQ+ individuals are the primary focus of studies, the impact of violence victimization on mental health is often examined by focusing on individual forms of violence, without consideration for multiple forms of victimization and how these different forms may impact individuals in unique ways. Given that LGBTQ+ individuals are at high risk for experiencing multiple forms of victimization across the lifespan, it may be beneficial to determine which of these forms of victimization are likely to co-occur within individuals' lives, and how, if at all, mental health experiences differ based on these different patterns of victimization. Such

information may be important to determining priorities for service development, funding, and provision for the LGBTQ+ community.

Current Study

In consideration of these questions, latent class analysis (LCA) may provide a unique opportunity to examine different profiles of violence victimization and how these are related to mental health by grouping participants into classes or groups of individuals with similar reported patterns based on estimated possibilities of class membership (Cavanaugh et al., 2012; Cheng et al., 2020; Vermunt & Magidson, 2002). Latent class analysis is an appropriate method given the importance of understanding the mental health needs of individuals experiencing different profiles of victimization from a person-centered approach (Cheng et al., 2020; Vermunt & Magidson, 2002). By creating profiles of LGBTQ+ survivors, we may be able to understand which forms of victimization are likely to co-occur for this population. Clarity on these different experiences can provide a more holistic view of how LGBTQ+ individuals are impacted by victimization across their lifespan, and how this is associated with their mental health outcomes.

Understanding differences between these exploratory groups can inform targeted mental health and policy interventions to address the impact of different forms of victimization by examining how, if at all, these different profiles of victimization are related to mental health outcomes in a way that does not simply examine cumulative violence exposure as additive, but recognizes that different forms of violence may affect

individuals in unique ways (Kennedy et al., 2013; Everitt et al., 2011). Past research examining victimization using profile analysis and LCA has examined some profiles of different types of violence exposure and how they relate to mental health issues and support seeking strategies; these have often focused on IPV profiles and how they impact women (Cavanaugh et al., 2011; Cheng et al., 2020; Garthe et al., 2020; Parker et al., 2016; Young-Wolff et al., 2013). For example, Cavanaugh and colleagues (2011) examined different profiles of violence exposure among women, including childhood sexual and physical abuse, as well as physical and sexual IPV and how these profiles related to mental health. Within this study, profiles related to IPV and childhood victimization were significantly related to depression and PTSD (Cavanaugh et al., 2011). Less research has utilized person-focused methods with LGBTQ+ individuals specifically, or focused on gender-based violence apart from IPV as part of these profiles.

Other gaps in literature on LGBTQ+ individuals and victimization include the emphasis on internalized stigma, with less consideration for other forms of minority stress, such as experiences of violence exposure motivated by bigotry. Studies that do examine violence exposure and mental health have often focused on comparing LGBTQ+ and cisgender, heterosexual samples, or comparing groups of LGBTQ+ samples such as lesbian and bisexual women, meaning there is less focus on patterns of victimization and more focus on differences between social groups. Furthermore, analysis of minority stress related to violence and mental health also often does not factor coping into analytic

models to explore one of the pathways between victimization and mental health outcomes that Meyer (2003) posits. Finally, studies of minority stress, particularly quantitative studies, tend to focus on cisgender gay men and lesbian women, with less examination for bisexual and transgender individuals. Given unique risk factors and barriers for bisexual and transgender individuals related to violence exposure (Coston, 2017; Garthe et al., 2018; Guadalupe-Diaz & Jasinski, 2016), more exploration of these experiences is needed.

The Minority Stress Model posits that experiences of prejudice, including bigotry motivated violence, negatively impact mental health, and so exposure to bigotry motivated violence will likely impact participants' mental health outcomes (Meyer, 2003). Unfortunately, bigotry motivated violence cannot be incorporated as an indicator for the class assignment, as it is too interconnected with the other forms of violence, given that this variable was a follow-up question to other forms of violence (see description of measures). Given that I cannot incorporate bigotry motivated violence exposure directly into class profiles, ensuring that it is controlled for as a covariate will also ensure that the classes are accurately predicting mental health outcomes, rather than experiences of bigotry primarily predicting these outcomes. Similarly, the Minority Stress Model includes social support and coping as impacting mental health along with minority stress events, though research utilizing the minority stress model with victimization often does not incorporate these factors into analysis (Meyer, 2003). Though social support could not be evaluated within this analysis due to missing data, it is important to consider coping in order to capture the nuances of how individuals navigate and react to

victimization. There is varying evidence regarding the impact of gender and race and/or ethnicity on the interaction between minority stress and mental health outcomes; in many cases, gender minorities and people of color within the LGBTQ+ community experience multiple layers or intersections of minority stress, which exacerbates the effects of minority stress (Binion & Gray, 2020; Bostwick et al., 2019; Finneran & Stephenson, 2013; McLaughlin et al., 2012; Schneeberger et al., 2014). Given the potential impact of these variables on the outcomes and the probable statistical limitations of examining them as predictors, these will also be included as covariates.

Research Questions and Hypotheses

The following study seeks to examine the following questions: 1) what classes of participants will emerge when examining patterns of violence victimization related to adult exposure to gender-based violence (IPV/SA), childhood exposure to gender-based violence (IPV/SA), adult exposure to other forms of violence, childhood exposure to other forms of violence, and other stressful life events? 2) what are the associations between profiles of violence victimization and depression symptoms among LGBTQ+ survivors of violence, controlling for exposure to bigotry motivated violence, gender minority status, ethnic minority status, and coping? 3) what are the associations between profiles of violence victimization and PTSD symptoms among LGBTQ+ survivors of violence, controlling for exposure to bigotry motivated violence, gender minority status, ethnic minority status, and coping?

I propose the following hypotheses:

Hypothesis I

It will be possible to estimate latent classes based on exposure to adult gender-based violence, childhood gender-based violence, other forms of violence in childhood, other forms of violence in adulthood, and other stressful life events

Hypothesis II

Class membership will be related to overall depression, controlling for bigotry motivated violence exposure, race/ethnicity, coping, and gender

Hypothesis III

Class membership will be related to overall PTSD, controlling for bigotry motivated violence exposure, race/ethnicity, coping, and gender

Method

In a statewide needs assessment in 2016, LGBTQ+ participants reported disproportionate rates of violence victimization without proportionate service utilization (Alderden & Houston-Kolnik, 2017; Vasquez & Houston-Kolnik, 2017). Given these high rates, the Illinois Criminal Justice Information Authority (ICJIA) developed a survey to examine victimization experiences of LGBTQ+ residents of Illinois to better understand the needs of the LGBTQ+ community related to victimization. Throughout survey development, recruitment, and data collection, ICJIA consulted with an advisory board, consisting primarily of individuals serving administrative positions in LGBTQ+ specific service agencies. These individuals consulted on issues such as adaptation of measures, structure of the survey, and recruitment strategies. ICJIA also convened a group of direct service providers.

Measures

The original survey included 10 sections with varying measures. This section will discuss the measures and sections relevant to the current research questions.

Focal Indicators

Victimization. Experiences of violence victimization were evaluated using 15 questions, 10 of which were adapted from the Stressful Life Events Screening Questionnaire-Revised (SLESQ-R), which was developed to screen for trauma exposure (Green et al., 2006). The SLESQ-R has been shown to have reasonable test-retest reliability (r= 0.89 for number of events, r=0.31-1.00 for individual items), and item validity (r=0.77 for number of events, κ=0.26-0.90 for item validity; Green et al., 2006). This measure was originally normed with a homogenous, primarily white sample, but there is some evidence of its validity among survivors of color as well (Green et al., 20006). The remaining five questions were adapted from an ICJIA-contracted 2016 survey to assess experiences in Illinois, focusing on human trafficking, kidnapping, arson, stalking, and injury related to an individual driving while intoxicated or distracted (Aeffect, Inc., 2017). Participants were able to select multiple forms of violence victimization, and multiple points in their lifetime during which they experienced victimization. For example, participants would respond to prompts such as *someone touched private parts of my body, made me touch their body, or tried to make me have sex against my wishes* by selecting whether this had happened to them as a *child (under 12 years old),* as a *youth (12-20 years old),* as an *adult (21-59 years old),* as an *older adult (60 years or older),* whether they *[had] not had this experience,* whether they were *not sure/don't remember,* or *prefer not to answer.* Based on research questions, scores for

this measure were attained in the following ways: victimization will be re-coded into new categories of degree of *childhood gender-based violence, adulthood gender-based violence, childhood general violence,* and *adulthood general violence* for simplicity. Examples of this re-categorization included re-categorizing endorsement of experiencing armed robbery in adulthood as adulthood general violence, and experiences of experiencing intimate partner violence as an adult as adulthood gender-based violence. This simplifies class analysis by using more general categories, and increases the ability to focus on the distinctions between gender-based and general violence. After this re-coding, scores for these categories were attained by finding the sum of each type of exposure.

Other Stressful Life Events. Participants also reported whether they had experienced any of 11 different stressful events in their life. Five of these items were drawn from the *SLESQ-R,* related to chronic illness, life-threatening accidents, loss of loved ones related to suicide, witnessing violence, or feeling threatened (Green et al., 2006). Two questions related to homelessness or rejection from family home were adapted from the 2015 U.S. Transgender Survey (James et al., 2016). Other items related to financial victimization, bullying, threats related to being outed, and being placed in the childhood welfare system were adapted from an ICJIA contracted 2016 needs survey, the State and Local Youth Risk Behavior Survey, and recommendations from the ICJIA advisory board (Aeffect, Inc., 2017; Brener et al., 2013). Clients were asked items such as *I have had a chronic illness or currently have a chronic illness, such as HIV/AIDS* and would respond *yes, no, not sure or don't remember,* or *prefer not to answer.* As part of

the LCA, total scores of stressful life events were evaluated as *stressful life events* within the model.

Distal Outcomes

Depression. Depression symptoms were assessed using the Center for Epidemiologic Studies Depression Scale Revised (CESD-R-10; Radloff, 1977). This measure is a self-report measure of 10 items that explores different symptoms of depression within the past week such as being easily bothered, having difficulty sleeping, loneliness, and difficulty concentrating on a Likert scale (Radloff, 1977). Participants would receive questions such as *I felt that everything I did was an effort* with options from *none of the time, rarely (1 day), some or a little of the time (2-3 days), occasionally or a moderate amount of time (4-5 days), all of the time (6-7 days) or prefer not to answer.* The CESD-R-10 has demonstrated strong reliability, including internal consistency (Cronbach's α=0.86), and test-retest reliability (ICC = 0.85; Bjorgvinsson et al., 2013; Miller et al., 2008; Radloff, 1977). Similarly, this measure demonstrates strong convergent validity (0.91) and divergent validity (0.89), indicating this measure's ability to evaluate depression symptoms is fairly strong (Bjorgvinsson et al., 2013; Miller et al., 2008; Radloff, 1977). In one study utilizing the CESD-R with a sexual minority sample, Ogunbajo and colleagues (2020) found a Cronbach's alpha of 0.93, indicating strong internal consistency within this population as well. Each item response corresponds to a certain number of points corresponding to how much the response indicates prevalence of depressive symptoms (e.g. *none of the time* corresponding to 0 points for the majority of items, and 4 points for reverse items). Scores are attained by adding items and reversed items together, with higher numbers indicating more serious depression.

Posttraumatic Stress Disorder. Symptoms related to trauma responses and PTSD were assessed using the *Primary Care PTSD Screen for DSM-5* (PC-PTSD-5), a 5-item self-report questionnaire meant to identify potential issues with PTSD (Prins et al., 2015). This measure has strong test-retest reliability ($r = 0.83$) and predictive validity against other PTSD measures such as the Clinician Administered PTSD Scale (CAPS; $r = 0.83$), indicating this measure is fairly robust in evaluating probability of PTSD symptoms in a consistent manner (Prins et al., 2003). Participants would respond to items regarding whether in the past month, they had, for example, *felt numb or detached from people, activities, or your surroundings,* by responding *every day, several times a week, 2-3 times a month, once a month, never,* or *prefer not to answer.* Each item response corresponds to a certain number of points corresponding to how much the response indicates prevalence of PTSD symptoms (e.g. *never* corresponding to 0 points). This is a revision from the original measure, which has a binary yes/no response option. Scores are attained by adding items together, with higher numbers indicating more likelihood of PTSD.

Control Variables.

Bigotry Motivated Violence. After responding to questions about violence exposure, participants reported whether they perceived that any of these instances were bigotry motivated, and if so, what aspect of social identity it was related to (race, religion, ethnic or national origin, disability, gender identity, gender expression, sexual orientation), based on questions from the 2018 National Crime Victimization Survey (2020). For the purpose of this analysis, all forms of bigotry motivated violence were summed into an overall score reflecting total exposure to bigotry motivated violence.

Coping. Participant coping in the face of victimization was assessed using a modified version of the Brief Coping with Problems Experienced (Brief-COPE). The Brief-COPE is a 28 item self-report survey that assesses participants' skills related to active and passive coping, use of substances, emotional or instrumental support, and other patterns of responses to victimization on a Likert scale (Carver, 1997). Participants would respond to prompts such as *I've been trying to come up with a strategy about what to do* by indicating whether this was true *every day, several times a week, 2-3 times a month, once a month, never,* or *prefer not to answer.* Research has demonstrated a variety of different factors and subscales within the Brief-COPE, often within a two-group categorization of adaptive vs. maladaptive coping (Wang et al., 2016). The Brief-COPE has also been evaluated in multiple different populations and has generally demonstrated strong internal reliability for different factors (α ranges from 0.50-0.90; Carver, 1997; Kaysen et al., 2014). The Brief-COPE has been utilized with multiple populations, including LGBTQ+ individuals (Carver, 1997; Kaysen et al., 2014). Kaysen and colleagues (2014) found that the Brief-COPE demonstrated reasonable internal consistency for adaptive (Cronbach's α=0.81) and maladaptive (Cronbach's α=0.81) coping subscales, though they dropped some items from analysis for parsimony. To adapt the measure for this study, six additional items were included related to LGBTQ+ identity avoidance, seeking LGBTQ+ specific support, and engaging in self-harm, in order to reflect alternative forms of coping and reacting to negative experiences. Items from the Brief-COPE related to humor as a coping mechanism were removed. An initial exploratory factor analysis was conducted to determine how removal and addition of

items changes other subscales that have been identified. Subscale scores for this measure are attained by adding item scores corresponding to each subscale together.

Demographics. Participants completed demographics related to their sexual orientation and gender identity based on best practice recommendations from The Williams Institute (Sexual Minority Assessment Research Team, 2009; Gender Identity in U.S. Surveillance Group, 2014). Questions involved self-identification as heterosexual, gay, lesbian, bisexual, or other. Participants also reported their sex assigned at birth by selecting female, male, or intersex. Participants reported their gender identity by selecting any of the following: cisgender women, cisgender man, transgender woman, transgender man, genderqueer/nonbinary, or other. Participants also identified their ethnicity by selecting any of the following: Hispanic/Latino/Spanish, Black/African American, Asian, American Indian/Alaska Native, Middle Eastern/North African, Pacific Islander/Native Hawaiian, White/Caucasian, or other. For the purpose of this analysis, participants will be grouped as people of color/racial minority participants vs. white participants, and gender minority participants vs. cisgender male participants.

Recruitment and Sample

Participants were recruited using a variety of methods, including 1) emailing information to LGBTQ+ and allied service agency listservs, 2) mailing fliers and other tangible recruitment materials for distribution and/or display by interested providers, 3) social media advertisements and posts from ICJIA and other partners, 4) advertising on Craigslist pages, 5) an ICJIA press release, 6) contacting participants from previous studies who had consented to future contact, and 7) inviting participants to share the study with others who may also be interested. Those who expressed interest were

screened via phone call or online for the following eligibility criteria: 1) 18 years or older, 2) residing in Illinois, 3) LGBTQ+ identification, 4) exposure to at least one form of victimization in their lifetime.

The first round of data collection took place between December, 2018 and January, 2019; in this round, the screener was completed 1,097 times and researchers invited 293 individuals to complete the survey, which they could do immediately. Surveys were primarily completed online using Qualtrics, and participants were compensated with a $25 gift card to Target or Amazon depending on preference, which they could receive by email. Given some concerns about fraudulent submissions and data quality issues (e.g., surveys completed too rapidly), researchers eliminated surveys that could not be confirmed as participants (confirmed participants included those with whom researchers had some phone contact or who received their survey/payment by mail). The final sample retained from the first round of data collection was 31 individuals.

During the second round of data, which took place between July 2019 and December 2019, the screener was completed 1,129 times, and 267 individuals were invited to complete the full survey. No changes were made regarding screening criteria or survey questions. Surveys could no longer be completed immediately, and participants selected to either have the survey link mailed to them or to receive a paper survey in the mail. Compensation was reduced from $25 to $10, and compensation was mailed after completion. Participants who were not eligible, those who would not be reached for payment delivery, those suspected of fraud, and those with significant poor data quality (e.g. *prefer not to answer* selected for most items) were excluded. The final sample retained from the second round of data collection was 181 individuals.

Data Analysis

In order to examine these questions, I used latent class analysis (LCA) to group participants into latent profiles based on the following variables as indicators: degree of *childhood gender-based violence, adulthood gender-based violence, childhood general violence, adulthood general violence,* and *other stressful life events.* LCA constructs a model of different possible profiles of a latent construct based on observed data; for this analysis, individuals with similar patterns across these five indicators related to violence and stress exposure were placed in the same *class* based on posterior probabilities of membership (Collins & Lanza, 2010; Vermunt & Magidson, 2002). This is meant to indirectly measure a latent variable through these observed indicators, and the set of classes from the dataset represent categories of the latent variable (Collins & Lanza, 2010. Classes are meant to be relatively homogeneous, with members of classes being more similar in patterns across indicators to each other, and distinct from individuals within other classes (Collins & Lanza, 2010). LCA is a person-oriented approach that can represent complex data about individuals in a way that is more parsimonious and more clearly represents patterns across different individuals to better understand how, in this case, overall exposure to a variety of different forms of violence and stress present across this dataset (Collins & Lanza, 2010).

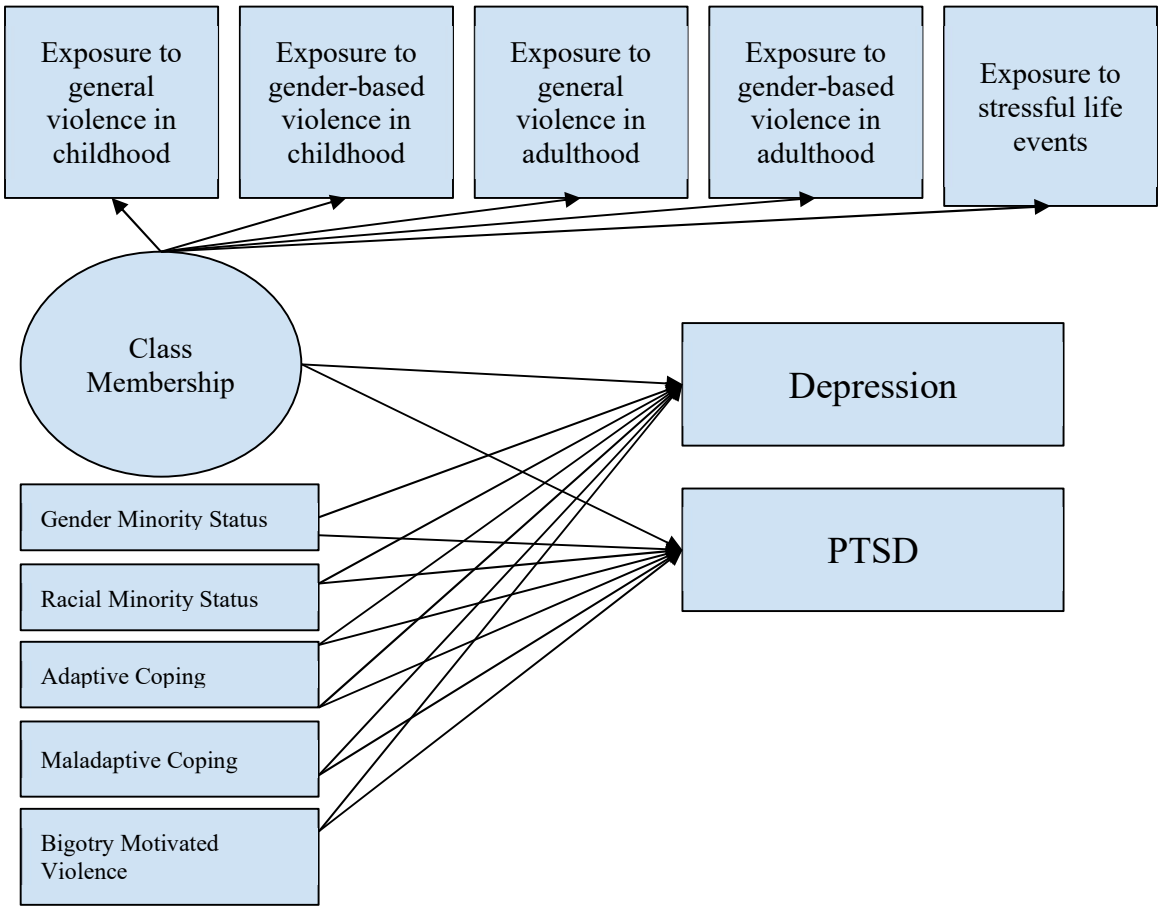
LCA was conducted using Latent GOLD 6. General descriptives and exploratory factor analysis were conducted using SPSS 26. Research varies regarding appropriate and necessary sample size for LCA. Wurpts (2012) found that LCA is not recommended with as sample size under 100, given difficulties accurately predicting and estimating models. Given the sample size in this case, there may still be some issues with accuracy related to

fit, but LCA should be possible and feasible. Latent class modeling in Latent Gold 6 presents different models based on different possible numbers of classes (e.g. estimating models based on a two-cluster solution, three-cluster solution, etcetera) and provides information related to the fit of these solutions to the data. Modeling was run to estimate models with between 1-8 classes to evaluate best fit based on model fit statistics (related to how well relationships between variables are explained by the model, as well as the significance of the model).

Latent GOLD 6 allows for stepwise analysis to estimate latent clusters and their relationships with other variables. In this form of analysis, subjects are assigned to classes based on posterior probability; for continuous dependent variables, it is most appropriate to utilize proportional assignment, in which subjects are treated as belonging to each class with weights equal to these membership probabilities (Vermunt, 2010). Latent GOLD 6 also incorporates bias adjustment to minimize error related to stepwise analysis. Thus, once the ideal number of classes was determined, a new model was run with distal outcomes and control variables to determine how class membership is related to mental health outcomes when accounting for the effects of control variables on mental health outcomes. Latent Gold 6 Advanced Syntax also provides options to address missing data through various options, such as allowing classification to "include missing" values, which was used for inclusion of control variables. The ideal model is the most parsimonious version that still uniquely explains variance in the data related to how latent classes predict mental health outcomes without significant error (Collins & Lanza, 2010). Figure 1 illustrates the model for analysis.

Figure 1

Proposed Model



Results

After excluding respondents with no victimization experiences and/or missing data related to mental health outcomes, the final sample for analysis was 204 participants. Given that these were the main predictive and outcome variables, participants who did not report these experiences or complete these measures could not be compared in analysis.

Descriptives

Demographics. All participants identified as members of the LGBTQ+ community. Almost half of participants (n=101, 49.5%) identified as gay or lesbian, 85 (41.7%) identified as bisexual, and 3 (1.5%) identified as heterosexual or straight.

Notably, 15 participants (7.4%) identified as LGBTQ+ but did not indicate their sexual orientation.

Participants' ages ranged from 18-72, with a mean of 31.1 years of age (*SD* = 11.06). Despite being a highly educated sample, over half of participants (*N* = 124, 60.8%) participants reported an annual household income of under $50,000, and around 23% of participants reported making under $20,000 a year. Table 1 indicates which regions of Illinois are represented; Cook County is over-represented in this sample (58.33% of the current sample compared to 40% of Illinois residents), likely related to the perception that Cook County is more politically left than the rest of Illinois (Vasilogambros, 2019; World Population Review, 2022). Though not all counties of Illinois are represented within the sample, all regions of Illinois are. Over half of participants (n=117, 57.4%) reported living in an urban setting, 59 participants (28.9%) reported living in a suburban environment, and 26 (12.7%) reported living in a rural environment.

Table 1

Participants' location across Illinois regions

Region	Counties Represented within Sample	Participants Living in Region (%)
Region 1 (Cook County)	1	119 (58.33%)
Region 2 (Northern Illinois)	12	36 (17.4%)
Region 3 (Middle Illinois)	6	23 (11.3%)
Region 4 (Middle Illinois)	8	16 (7.8%)
Region 5 (Southern Illinois)	6	8 (3.9%)

Participants were able to select multiple gender identities and racial/ethnic categories, and so some recoding was completed to account for multiracial identity and genderfluidity. In terms of racial/ethnic breakdown, 149 participants (73%) indicated some European or White heritage, 38 (18.6%) indicated some Black or African American heritage, 25 (12.3%) indicated some Hispanic, Latino, or Spanish heritage, 8 (3.9%) indicated some Asian heritage, 6 (2.9%) indicated some American Indian or Alaska Native heritage, 4 (2%) indicated some Middle Eastern or North African heritage, 2 (1%) indicated some Pacific Islander or Native Hawaiian heritage, and 5 (2.4%) indicated some other ethnicity. 29 participants (14.2%) selected multiple race or ethnicity options. Multiracial identity was fairly diverse among participants, and this does not necessarily represent a group of similar experiences. For simplification of analysis, the 129 participants who identified only as white were recoded as white (racial majority) and the 73 participants who identified as any heritage other than white (including multiracial) were recoded as racial minorities.

Table 2

Race/Ethnicity within sample

Race/Ethnicity	Number of participants (%)
European/White	149 (73%)
Black/African American	38 (18.6%)
Hispanic/Latino/Spanish	25 (12.3%)
Asian	8 (3.9%)
American Indian/Alaska Native	6 (2.9%)
Middle Eastern/North African	4 (2%)
Pacific Islander/Native Hawaiian	2 (1%)
Another ethnicity	5 (2.4%)
Multiracial	29 (14.2%)
(Collapsed) Racial/Ethnic Minority	73 (35.7%)

The sample is primarily made up of cisgender women and transgender individuals, who were recoded as gender minorities. Specifically, 75 (36.7%) participants identified as cisgender women, 57 (27.9%) identified as cisgender men, 53 (26%) identified as genderqueer or gender non-conforming, 22 (10.8%) identified as transgender men, 6 (2.9%) identified as transgender women, and 15 (7.4%) identified as some other gender. Other responses indicated some form of nonbinary identity or identity as a gender minority, and therefore participants who indicated an unlisted gender, as well as those who identified as women (cisgender or transgender), and other transgender individuals were collapsed into "gender minorities" (N = 149, 73%), and participants who identified only as cisgender men were categorized as "cisgender man" (N = 49, 24%).

Table 3

Gender within sample

Gender	Number of participants (%)
Cisgender Woman	75 (36.7%)
Cisgender Man	57 (27.9%)
Genderqueer/Gender Non-Conforming	53 (26%)
Transgender Man	22 (10.8%)
Transgender Woman	6 (2.9%)
Another Gender	15 (7.4%)
(Collapsed) Gender Minority	149 (73%)

Victimization. The primary independent variables were experiences of violence and stress, related to: exposure to general forms of violence and victimization (e.g. physical abuse, arson) in childhood, gender-based violence and victimization (e.g. sexual abuse, stalking) in childhood, general forms of violence and victimization in adulthood, gender-based forms of violence and victimization in adulthood, and overall stressful life events. Overall, participants varied in how much they identified different forms of victimization and violence. A total of 158 (77.5%) participants reported between 1-11 experiences of general violence in childhood, with a mean of 3.43 experiences (*SD* = 2.32). Comparatively, 161 (78.9%) participants reported between 1-8 experiences of gender-based violence in childhood, with a mean of 2.91 experiences (*SD* = 1.63). Fewer participants reported general violence in adulthood; 100 (49%) reported between 1-8 experiences, with a mean of 2.17 experiences (*SD* = 1.63). Finally, 130 (63.7%) participants reported between 1-5 experiences of gender-based violence in adulthood,

with a mean of 2.44 experiences (*SD* = 1.26). When focusing on stressful life events, 203 participants completed this measure and identified experiencing between 1-10 forms of stressful life events, with a mean of 3.05 (*SD* = 2.14). Data were examined for differences in experiences of violence and stressful life events based on the focal demographic variables: race/ethnicity, gender identity, and sexuality. This could not be tested for statistical significance because groups were not mutually exclusive (See Tables 2, 3, and 4). However, descriptive statistics suggest some potential differences. Based on descriptive statistics, larger racial/ethnic groups tended to be more similar to the general sample, though participants who identified Latinx or Hispanic heritage endorsed overall higher exposure to general violence in adulthood than the general mean, and participants who identified as multiracial endorsed overall higher exposure to gender-based violence in childhood, and overall lower exposure to general violence in adulthood. In regards to gender, though transgender women endorsed overall small numbers of experiences of gender-based violence in childhood, all participants who identified as transgender women endorsed experiencing general violence and gender-based violence in adulthood. It should be noted that given all participants experienced some form of victimization as a necessity to study participation, these statistics do not necessarily represent differences within the overall population of LGBTQ+ individuals.

Mental Health Outcomes. Overall this sample demonstrates high rates of PTSD and depressive symptoms. For example, clinically relevant cutoffs for the CESD often begin at 16 or higher (Radloff, 1977), and the mean score of this sample was 20.24 (*SD* = 8.13). Given the revisions to the PC-PTSD-5, clinically relevant cutoffs cannot be examined, but the mean score of this sample of 9.18 (*SD* = 5.33) indicates middle level

scores, considering the range of 0-20 for this measure. Mental health outcomes varied between groups, though for all sexual orientation, gender, and racial/ethnic groups, average mental health scores were still clinically significant. Participants who did not indicate a sexual orientation reported higher overall scores for both depression and PTSD, and bisexual participants also reported higher overall depression.

Table 4

Endorsement of key variables across sexual orientation

Sexual Orientation	Childhood General Violence M (SD)	Childhood Gender Based Violence	Adult General Violence	Adult Gender Based Violence	Stressful Life Events	Depression	PTSD
Heterosexual or straight	4.33 (3.21; n=3)*	2.0 (1.41; n=2)	1.5 (0.71; n=2)	3.0 (0; n=1)	4.33 (1.53)	17.33 (6.11)	10.33 (8.08)
Gay or lesbian	3.40 (3.40; n=78)	2.89 (1.53; n=76)	2.16 (1.40; n=56)	2.49 (1.34; n=65)	3.28 (2.17)	18.98 (8.07)	8.64 (5.29)
Bisexual	3.17 (2.12; n=63)	2.71 (1.69; n=69)	2.28 (1.34; n=36)	2.40 (1.20; n=53)	2.69 (2.18)	21.24 (7.92)	9.47 (5.37)
Prefer not to answer	4.57 (3.03; n=14)	4.07 (1.54; n=14)	1.83 (0.75; n=6)	2.27 (1.27; n=11)	3.29 (1.44)	23.67 (8.97)	10.93 (4.76)
General sample	3.43 (2.33; n=158)	2.91 (1.63; n=161)	2.17 (1.33; n=100)	2.44 (1.26; n=130)	3.05 (2.14)	20.24 (8.13)	9.18 (5.32)

Note: * Indicates all participants in this group endorsed this form of violence

Differences between groups and mental health outcomes could also not be tested for statistical significance, as groups were not mutually exclusive (See Tables 2, 3, and 4). When examining descriptive statistics, participants who identified as having Asian, Middle Eastern/North African, Pacific Islander/Native Hawaiian, or an unlisted ethnic heritage reported overall higher scores of depression and PTSD. Participants who identified having Latinx or Hispanic heritage also reported having higher overall depression scores.

Table 5

Endorsement of key variables across race/ethnicity

Participant Race / Ethnicity	Childhood General Violence M (SD)	Childhood Gender Based Violence	Adult General Violence	Adult Gender Based Violence	Stressful Life Events	Depression	PTSD
American Indian/ Alaskan Native	3.80 (2.17; n=5)	3.60 (1.14; n=5)	2.00 (1.73; n=3)	2.20 (1.64; n=5)	3.83 (0.98)	19.17 (9.83)	8.50 (4.32)
Asian	3.20 (2.17; n=5)	2.60 (1.14; n=5)	None endorsed	1.00 (0; n=2)	2.00 (1.31)	22.38 (5.95)	10.00 (3.78)
Black/African American	3.51 (2.56; n=35)	3.00 (1.70; n=32)	2.42 (1.21; n=24)	2.70 (1.13; n=20)	3.26 (2.40)	19.82 (7.89)	8.87 (4.49)
Latinx/ Hispanic	3.60 (2.06; n=20)	2.90 (1.22; n=21)	2.50 (1.35; n=10)	2.73 (1.62; n=15)	2.80 (2.24)	22.08 (8.79)	8.88 (4.14)
Middle Eastern/North African	4.00 (4.08; n=4)*	3.50 (2.65; n=4)*	None endorsed	1.50 (0.71; n=2)	3.50 (1.00)	22.00 (4.97)	9.50 (6.76)
Pacific Islander/ Native Hawaiian	1.50 (0.71; n=2)*	2.50 (0.71; n=2)*	None endorsed	None endorsed	2.50 (0.71)	21.50 (7.78)	13.00 (7.07)
White	3.16 (2.04; n=110)	2.91 1.67; n=114)	2.00 (1.17; n=73)	2.43 (1.29; n=100)	2.97 (2.01)	19.83 (8.02)	9.08 (5.55)
Multiracial	3.36 (2.14; n=25)	3.32 (1.55; n=25)	1.67 (1.34; n=9)	2.47 (1.64; n=15)	3.03 (1.86)	21.41 (8.15)	9.48 (4.05)
Other Race	3.60 (3.21; n=5)*	3.00 (2.00; n=5)*	8.00 (0; n=1)	3.67 (1.53; n=3)	5.20 (2.28)	23.40 (7.02)	13.20 (4.92)
Ethnic/Racial Minorities	3.56 (2.41; n=63)	3.02 (1.59; n=63)	2.56 (1.58; n=32)	2.60 (1.35; n=40)	3.12 (2.24)	20.97 (8.12)	9.29 (4.46)
General Sample	3.43 (2.33; n=158)	2.91 (1.63; n=161)	2.17 (1.33; n=100)	2.44 (1.26; n=130)	3.05 (2.14)	20.24 (8.13)	9.18 (5.32)

Note: * Indicates all participants in this group endorsed this form of violence

In terms of gender, mean depression scores were higher among those who identified as transgender women, as an unlisted gender, or who selected multiple gender options, and those who identified as genderqueer or gender non-conforming or who identified as an unlisted gender reported overall higher scores of PTSD compared to the general population.

Table 6

Endorsement of key variables across gender

Participant Gender	Childhood General Violence M (SD	Childhood Gender Based Violence	Adult General Violence	Adult Gender Based Violence	Stressful Life Events	Depression	PTSD
Cisgender man	3.42 (2.46; n=43)	2.41 (1.58; n=39)	2.13 (0.99; n=31)	2.32 (1.27; n=37)	3.26 (2.13)	19.39 (7.75)	8.09 (5.09)
Cisgender woman	2.88 (1.76; n=58)	2.84 (1.63; n=63)	2.06 (1.22; n=33)	2.58 (1.26; n=53)	2.76 (2.32)	19.33 (8.83)	8.93 (5.23)
Transgender man	3.63 (2.36; n=19)	3.13 (1.68; n=15)	2.00 (1.28; n=12)	2.00 (0.94; n=10)	3.00 (1.66)	21.23 (8.17)	9.82 (5.93)
Transgender woman	6.00 (4.36; n=3)	1.75 (1.50; n=4)	2.17 (1.83; n=6)*	2.17 (0.76; n=6)*	2.83 (2.32)	21.50 (7.34)	9.17 (5.98)
Genderqueer, gender nonconforming	4.08 (2.61; n=39)	3.32 (1.43; n=44)	2.35 (21.79; n=20)	2.17 (1.23; n=29)	3.27 (1.95)	21.40 (6.97)	9.94 (4.76)
Other	4.27 (2.72; n=11)	4.09 (1.87; n=11)	2.25 (1.39; n=8)	2.88 (1.46; n=8)	3.47 (1.77)	24.6 (6.74)	10.87 (5.17)
Multiple selected	4.56 (3.00; n=18)	3.39 (1.54; n=18)	2.10 (1.10; n=10)	1.79 (0.80; n=14)	3.23 (1.66)	21.92 (6.88)	9.12 (4.01)
Gender Minorities	3.45 (2.26; n=116)	3.04 (1.63; n=122)	2.17 (1.45; n=70)	2.49 (1.26; n=94)	2.97 (2.15)	20.65 (8.18)	9.58 (5.30)
General Sample	3.43 (2.33; n=158)	2.91 (1.63; n=161)	2.17 (1.33; n=100)	2.44 (1.26; n=130)	3.05 (2.14)	20.24 (8.13)	9.18 (5.32)

Note: * Indicates all participants in this group endorsed this form of violence

Bigotry motivated violence. Overall, 130 participants indicated that they felt they had been victimized on the basis of bigotry against their sexuality, gender, race, or other identity. These 130 participants reported a range of 1-25 experiences of bigotry motivated violence, with an average of 5.51 experiences overall (*SD* = 5.02). When accounting for all participants, including those who reported no bigotry motivated violence exposure, the mean was 3.51 (*SD* = 4.90) overall.

Exploratory Factor Analysis

Given the changes to the Brief-COPE, Exploratory Factor Analysis (EFA) was conducted to examine what types of coping were connected for participants within this sample. To evaluate whether the 32 items of the adjusted Brief-COPE could be factored,

a correlation matrix was generated. Five items ("I've been trying to find comfort in my religion or spiritual beliefs," "I've been praying or meditating," "I've been working to hide my LGBT+ identity," "I've been changing what I say or do to cover up my LGBT+ identity," and "I've been seeking out places or people that support LGBT+ identified persons") were removed due to insufficient inter-item correlations with other items (less than 0.30). After removing these items, Bartlett's Test for Sphericity demonstrated a statistically significant chi-squared value of 2139.18 ($p < .001$) and Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy of .811, suggesting this matrix can be factored.

After conducting principal axis factoring with oblimin rotation in SPSS Statistics 26, three items ("I've been saying to myself "this isn't real"", "I've been refusing to believe that it has happened," and "I 've been taking care to avoid places or people that are not LGBT+ friendly") were dropped due to low factor loadings (under 0.40; Matsunaga, 2010). A number of strategies were used in consideration of the number of factors to retain. For example, the scree plot suggested retaining three factors, as did cumulative percentage of variance criteria. When examining specific items and factor loadings, factor loadings on a third factor were significantly lower than on two factors, and so EFA was conducted with both two and three factors to examine which number of factors would be best to retain. Ultimately, a two-factor model was determined to be most appropriate, given stronger factor loadings, fewer cross-factor loadings, and clearer theoretical utility. Factor 1 consisted of 16 items associated with more Adaptive Coping behaviors (e.g. "I've been getting help and advice from other people," "I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping") while Factor 2 consisted of eight items associated

with more Maladaptive Coping behaviors (e.g. “I’ve been blaming myself for things that happened,” “I've been using alcohol or other drugs to make myself feel better”). The factor loadings for each item can be found in Table 5. One item, “I’ve been criticizing myself” had a higher factor loading on Adaptive Coping than on Maladaptive Coping but given conceptual overlap with other items on Maladaptive Coping, it was determined this item should be part of the Maladaptive Coping scale. Participants’ scores on Adaptive Coping ranged from 0-64, with an average of 37.29 (*SD* = 11.62). Participants’ scores on Maladaptive Coping ranged from 0-32, with an average of 10.41 (*SD* = 6.93).

Table 7
Factor loadings

Item	Adaptive Coping	Maladaptive Coping
I’ve been trying to get advice or help from other people about what to do.	*.685*	-.131
I've been trying to come up with a strategy about what to do	*.658*	-.199
I’ve been getting help and advice from other people.	*.653*	-.159
I've been expressing my negative feelings.	*.640*	.106
I've been getting comfort and understanding from someone	*.609*	-.249
I've been taking action to try to make the situation better.	*.588*	-.385
I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	*.582*	.082
I've been getting emotional support from others	*.560*	-.161
I’ve been criticizing myself	.533	*.356*
I've been concentrating my efforts on doing something about the situation I'm in.	*.497*	-.270
I've been thinking hard about what steps to take.	*.493*	-.316
I've been looking for something good in what is happening.	*.489*	-.218
I've been saying things to let my unpleasant feelings escape.	*.480*	.202
I've been accepting the reality of the fact that it has happened.	*.480*	-.190
I've been trying to see it in a different light, to make it seem more positive	*.467*	-.238
I've been learning to live with it.	*.462*	-.127
I've been turning to work or other activities to take my mind off things.	*.416*	.101
I've been giving up the attempt to cope.	.223	*.674*
I've been giving up trying to deal with it.	.115	*.607*
I’ve been doing things to put my physical health at risk.	.262	*.570*
I’ve been doing things (i.e. cutting/scratching/burning myself, engaging in unsafe sex, driving recklessly, eating more or less than I should, etc.) to hurt my body	.229	*.567*
I've been using alcohol or other drugs to help me get through it.	.327	*.546*
I've been using alcohol or other drugs to make myself feel better	.291	*.529*
I’ve been blaming myself for things that happened.	.346	*.506*

Note: Numbers are italicized to indicate their factor

Latent Class Analysis

Characterization of Identified Classes

Several steps were taken to identify the ideal model solution for LCA. First, I sequentially ran latent classes to gain fit statistics for unrestricted models with 1-8 class solutions. Model fit for latent classes was evaluated by examining the Baynesian information criterion (BIC), Akaike information criterion (AIC), modified AIC (AIC3), entropy and parsimony of the model. The bootstrap method within Latent GOLD was used because it estimates models more precisely. For the AIC, BIC, and AIC3 indices, lower values indicate better representation of the data using this model. Entropy values range from 0 to 1, with higher values indicating more accurate representation of the data. Parsimony was also considered as a factor for overall model fit, indicated by the *Npar* statistic, in which lower values indicate more parsimonious solutions. Results from the latent class analysis suggested that four-, five- and six-class solutions were likely optimal, as these solutions demonstrated lower AIC, BIC, and AIC3 values, higher entropy, and lower parsimony when compared to other solutions. Conditional bootstrapping further evaluated model improvement by examining significant *p*-values. Results indicated model improved when comparing 3-class to 4-class (-2LL Diff = 33.68, $p < .0001$) and no model improvement when comparing 4-class to 5-class (-2LL Diff = 13.05, $p = 0.154$), or 5-class to 6-class (-2LL Diff = 10.10, $p = 0.272$). This indicates that the 4-class solution significantly improved model fit compared to a 3-class solution, but further expansion of classes did not improve model fit significantly. Taken together, these results suggested the 4-class solution was the ideal solution. When evaluating local independence by

examining bivariate residuals between observed variables, no significant violations were found, and so no corrections were made.

Table 8

Model Fit Indices for Class Identification

Number of Classes	Log-Likelihood	AIC	AIC3	BIC	Entropy	Npar
1	-1855.32	3788.65	3827.65	3918.05	1.00	39
2	-1789.31	3668.63	3713.63	3817.94	0.71	45
3	-1774.38	3650.77	3701.77	3819.99	0.68	51
4	-1757.54	3629.08	3686.08	3818.22	0.67	57
5	-1751.02	3628.03	3691.03	3837.07	0.69	63
6	-1745.96	3629.93	3698.93	3858.88	0.70	69
7	-1733.71	3617.42	3692.42	3866.28	0.76	75
8	-1727.26	3616.52	3697.52	3885.29	0.76	81

Table 7 shows the descriptive statistics of the four classes across each victimization domain as well as pairwise comparisons. Class 1 was the largest group, accounting for around 34% (n= 69) of the sample. Across the indicators, Class 1 was characterized by medium levels of childhood victimization exposure and general stressful life events, and lower exposure to adult victimization. Thus, this class is best categorized as "Lower Adult Exposure," as this is the primary feature that distinguishes this class from others. Class 2 was the next largest class, accounting for around 27% (n = 55) of the sample. Class 2 was characterized by generally low exposure overall across all domains, and is thus best categorized as "Low Overall Exposure." Class 3 accounted for around 27% (n = 55) of the sample. This class was characterized by the highest overall levels of adult exposure to gender-based violence compared to other classes, and slightly higher levels of exposure to overall stressful life events compared to the first two classes. This

class is best characterized as "High Adult GBV." Finally, class 4 accounted for around 12% (n = 25) of the sample. This class was characterized by higher levels across domains, and is thus best characterized as "High Overall Exposure."

Table 9

Characteristics of Identified Latent Classes

Indicator	Class 1 (Lower Adult Exposure) *M* (*SD*)	Class 2 (Low Overall Exposure) *M* (*SD*)	Class 3 (High Adult GBV) *M* (*SD*)	Class 4 (High Overall Exposure) *M (SD)*	Wald $\chi 2$	p-value
General Violence in Childhood	3.29(2.09)[a]	0.67(0.91) [a,b,c]	2.09(1.69)[b,c,d]	6.51(2.36)[a,c,d]	21.97	< 0.001
Gender-Based Violence in Childhood	2.65(1.76)[a]	1.20(1.29)[a,b]	2.02(1.61)[c]	4.29(1.94)[a,b,c]	20.57	< 0.001
General Violence in Adulthood	0.30 (.60)[a]	0.39(.69)[b]	1.84(1.40)[a,b,c]	2.97(1.74)[a,b,c]	27.03	< 0.001
Gender-Based Violence in Adulthood	0.59(.89)[a]	1.00(1.14)[b]	2.97(1.39)[a,b]	2.39(1.47)[a,b]	19.98	< 0.001
Stressful Life Events	2.61(1.48)[a]	1.21(1.20)[a,b]	4.01(1.54)[a,b,c]	6.14(1.91)[a,b,c]	24.73	< 0.001

Note. Same letters across rows denote significant pairwise differences at the $p < .05$ level.

Prediction of Class Membership. In examining these classes, a bias-adjusted three-step analysis was conducted to examine how class membership related to demographics and other control variables. Notably, the High Adult GBV class and the High Overall Exposure class were significantly different in terms of Adaptive Coping (p = 0.034), with individuals in the latter class demonstrating higher rates of adaptive coping (M = 43.46). There were also significant differences between the Lower Adult Exposure class and the High Overall Exposure class ($p < 0.01$, as well as the High Adult GBV class and the High Overall Exposure class (p = 0.008) in terms of exposure to bigotry motivated violence, with individuals in the High Overall Exposure class reporting higher levels of exposure to bigotry motivated violence (M = 10.29). In other words, the

High Overall Exposure class demonstrated some significant differences from some other classes in terms of adaptive coping and exposure to bigotry motivated violence. No other significant differences emerged related to control variables.

No significant differences emerged related to demographics. All classes, with the exception of the "Lower Adult Exposure" class, had a higher percentage of white individuals compared to racial and ethnic minorities. All classes had a higher percentage of individuals identifying as gender minorities compared to identifying as cisgender men. The highest proportion of cisgender men was found in the Higher Adult GBV class, which was around 33% cisgender men.

Table 10

Demographic Characteristics of Identified Latent Classes

Indicator	Class 1 (Lower Adult Exposure) Percentage of group (*n*)	Class 2 (Low Overall Exposure)	Class 3 (High Adult GBV)	Class 4 (High Overall Exposure)
Racial/Ethnic Minority	51.3% (35)	20.9% (12)	31.4% (17)	36.4% (9)
Only White/European Descent	47.8% (33)	79.0% (43)	67.6% (37)	59.8% (15)
Gender Minority	77.7% (54)	74.1% (41)	64.5% (35)	76.0% (19)
Cisgender Man	19.6% (14)	21.5% (12)	32.7% (18)	23.6% (6)

Note: No significant differences found between classes for demographics; some participants did not indicate demographics

Class Membership Prediction of Distal Mental Health Outcomes

To examine the relationship between class membership and the distal outcomes of Depression and PTSD, a three-step regression with a distal outcome analysis was used. After the initial latent class analysis (step 1), subjects were assigned to classes for which the posterior membership probability was largest, with the BCH adjustment to ensure further accuracy (step 2), and a regression was conducted to explore the relationship

between these classes and mental health outcomes (step 3; Bolck, Croon, & Hagenaars, 2004). Without the addition of any control variables, class membership was found to significantly predict Depression (Wald $\chi 2(2) = 28.80$, $p < .001$), and PTSD (Wald $\chi 2(2) = 33.55$, $p < .001$). Pairwise comparisons indicated some significant differences regarding class and mental health outcomes. In terms of depression, participants classified within the Lower Adult Exposure class (Wald $\chi 2(2) = 4.01$, $p = .045$) as well as those in the High Adult GBV class (Wald $\chi 2(2) = 11.49$, $p < .001$) had significantly higher depression symptoms when compared to the Low Overall Exposure class. Participants in the Higher Overall Exposure class had significantly higher depression symptoms compared to those in the Lower Adult Exposure class, Wald $\chi 2(2) = 7.85.49$, $p = .0051$, and the Low Overall Exposure class, Wald $\chi 2(2) = 25.27$, $p < .001$. Notably, for all classes, mean scores of depression met clinical significance without control variables, though the Low Overall Exposure class only just met this clinical cutoff on the scale.

In terms of PTSD, those in the Low Overall Exposure class had significantly lower scores compared to all other classes, including the Lower Adult Exposure class, Wald $\chi 2(2) = 13.14$, $p < .001$, High Adult GBV class, Wald $\chi 2(2) = 20.34$, $p < .001$, and High Overall Exposure class, Wald $\chi 2(2) = 22.62$, $p < .001$.

For the second model, Model 2, a three-step regression with a distal outcome analysis was used to analyze the association between class membership and distal outcomes of Depression and PTSD while controlling for adaptive coping, maladaptive coping, bigotry motivated violence exposure, gender minority status, and racial/ethnic minority status. After the first step of the latent class analysis, subjects were assigned to classes for which the posterior membership probability was largest, with the BCH

adjustment to ensure further accuracy (Bolck et al., 2004). After this, the distal outcomes were regressed onto class membership while controlling for other variables of interest. This analysis revealed that while controlling for variables related to coping, exposure to bigotry motivated violence, and ethnic and gender minority status, class membership did not significantly predict depression, Wald $\chi 2(2) = 7.18$, $p = .066$, but did significantly predict PTSD, Wald $\chi 2(2) = 12.35$, $p = .0063$. Pairwise comparisons indicated that when comparing for bigotry motivated violence, adaptive and maladaptive coping, gender minority status, and ethnic minority status, some significant differences emerged regarding class and mental health outcomes.

Table 11

Characteristics of Identified Latent Classes Related to Distal Outcomes for Model 2

Distal Outcome	Class 1 (Lower Adult Exposure) *M* (*SD*)	Class 2 (Low Overall Exposure) *M* (*SD*)	Class 3 (High Adult GBV) *M* (*SD*)	Class 4 (High Overall Exposure) *M (SD)*	Wald χ2	p-value
CESD Total	20.19(7.80)	16.09(8.17)[a]	22.28(7.51)[a]	25.14(6.67)	7.18	0.066
PTSD Total	9.88(4.98)[a]	5.57(4.55)[a,b]	10.56(5.00)[b]	12.25(4.75)	12.35	0.0063

Note. Same letters across rows denote significant pairwise differences at the $p < .05$ level.

In terms of depression, the only significant difference emerged between the High Adult GBV class and the Low Overall Exposure class, with the former demonstrating higher scores, Wald $\chi 2(2) = 5.14$, $p = .023$. Other significant differences did not emerge, and class membership overall was not significantly related to depression when controlling for other variables. In terms of PTSD, two notable differences emerged. Participants in the Lower Adult Exposure class had overall significantly higher PTSD scores compared to those in the Low Overall Exposure class, Wald $\chi 2(2) = 4.47$, $p =$

.035. Similarly, participants in the High Adult GBV class had significantly higher PTSD when compared to the Lower Overall Exposure class, Wald $\chi 2(2) = 12.22$, $p < .001$.

General Discussion

Members of the LGBTQ+ community experience high rates of mental health problems and disproportionately high exposure to violence and stressful life experience throughout the lifespan (Meyer, 2003; Schneeberger et al., 2014). In order to examine the relationship between mental health and victimization, this study aimed to identify meaningful classes or groups based on victimization and stress exposure and determine if these patterns were related to mental health outcomes. Findings from the latent class analysis indicated a four-class solution based on exposure to general violence in childhood, gender-based violence in childhood, general violence in adulthood, gender-based violence in adulthood, and general stressful life events. The largest class, "Lower Adult Exposure," was characterized primarily by lower levels of adult victimization exposure compared to other forms of exposure. The second class, "Low Overall Exposure," was characterized by overall lower exposure of all forms of victimization. This group had the lowest mean scores across all indicators with the exception of gender-based violence in adulthood, which was slightly lower in the first class. The third class, "High Adult GBV," was the class with the highest mean for exposure to gender-based violence in adulthood. This class was also characterized by higher exposure to stressful life events. Finally, the smallest class, "High Overall Exposure," was characterized by overall higher exposure of all forms of victimization. This group had the highest mean scores across all indicators with the exception of gender-based violence in adulthood.

Consistent with our first hypothesis, our sample was able to be classified into latent classes based on these indicators.

In examining these groups, when compared to some of the other classes, the High Overall Exposure class demonstrated significantly higher scores related to adaptive coping and exposure to bigotry motivated violence. No significant differences emerged related to demographics. It should be noted that particularly for race/ethnicity, this sample size may have not been diverse or large enough to identify significant differences. In future studies with more comparable percentages of different groups, some differences could be noted in terms of profiles of violence exposure. Similarly, given sample size, race/ethnicity as well as gender were simplified into binary categories related to minority status. This may fail to address nuances related to victimization and intersectional oppression, particularly how gender-based violence may differentially impact those at the intersections of different forms of oppression.

Results from this study also demonstrated the utility of profiles of victimization in predicting mental health outcomes, particularly considering control variables related to adaptive coping, maladaptive coping, bigotry motivated violence exposure, gender minority status, and racial/ethnic minority status. When controlling for these factors, class membership was significantly associated with PTSD scores, but not with depression scores, meaning that Hypothesis III was met, and Hypothesis II was not met. However, significant differences emerged between groups related to depression and PTSD. Specifically, the High Adult GBV group demonstrated significantly higher depression than the Low Overall Exposure group, and higher PTSD scores than the Low Overall Exposure group. The Lower Adult Exposure group also demonstrated significantly higher

PTSD compared to the Low Overall Exposure group. Although the High Overall Exposure group had the highest mean depression and PTSD scores, this group was not significantly different from other groups when controlling for other variables. Given that this group was significantly different from others related to bigotry motivated violence, and was also the smallest group, the lack of statistical significance is not surprising. It should also be noted that despite these significant differences, all groups' mean scores met screening criteria for clinical significance for depression (a score of 16 or more; Radloff, 1977). In other words, even with these differences, this sample reported overall significant mental health problems that would likely warrant clinical intervention (Prins et al., 2015; Radloff, 1977).

There are several considerations when examining these results. The minority stress model posits that members of the LGBTQ+ community experience higher rates of mental health problems due to the impact of general and minority stressors in their lives (Meyer, 2003). A major form of minority stress related to the profiles of participants is *discrimination,* or experiencing concrete prejudice, rejection, or violence related to minority identity (Meyer, 2003). Simply looking at the profiles of violence exposure according to the minority stress model, one would expect that higher rates of victimization would be associated with higher rates of mental health problems. Without the addition of controls, members of the Low Overall Exposure class had significantly lower depression and PTSD scores than members of other classes, which is consistent with the model of minority stress.

Notably, key aspects of the minority stress model are not factored into this initial regression. Within this analysis, not all forms of victimization were related to minority

identity, but participants indicated whether they felt they had experienced forms of victimization related to different forms of minority identity, which was controlled for as *bigotry motivated violence exposure.* Given how bigotry motivated violence was integrally connected to different forms of victimization, victimization as understood by the minority stress model could not be utilized as an indicator. Another important aspect of minority stress theory is coping, which can affect the relationship between minority stress and mental health issues. Within this analysis, I then also controlled for adaptive and maladaptive coping. These controls complicated the relationship between profiles of victimization and mental health outcomes, as it was not simply that lower exposure was associated with significantly lower depression and PTSD scores.

Within this model, the High Adult GBV class had significantly higher scores than those within lower exposure classes. Gender-based violence has often been understood as a form of misogynist victimization related to minority identity, specifically perpetrated by cisgender, heterosexual men against cisgender, heterosexual women (Bornstein et al., 2006; Creek & Dunn, 2011). However, research repeatedly demonstrates that LGBTQ+ individuals experience high rates of gender-based violence both from cisgender, heterosexual individuals and other members of the LGBTQ+ community (Calton et al., 2016; Coston, 2017; NISVS, 2010; Todahl et al., 2009). This may complicate gender-based violence as a form of minority stress, but clearly gender-based violence exposure significantly impacted mental health outcomes for this sample, even with consideration for control variables, which may be seen as consistent with the minority stress theory. Past research has demonstrated the unique effects of gender-based violence on LGBTQ+ individuals' mental health, and how this often intersects with discrimination or other

experiences of violence (Binion & Gray, 2020; Kolp et al., 2019; Solomon et al., 2019). Notably, Solomon and colleagues (2019) explored how sexual and relationship violence exposure were associated with PTSD related to different aspects of minority stress. This research builds on such existing research by exploring the unique impact of gender based violence compared to other forms of violence exposure across the lifespan.

The fact that depression was overall not significantly predicted by class membership when controlling for coping, minority status, and bigotry motivated violence may indicate that these controls are significantly predicting depression within this sample. Particularly, bigotry motivated violence in this sample was significantly correlated with depression ($r = 0.21$, $p = 0.015$) and PTSD ($r = 0.19$, $p = .031$), and this variable may have been uniquely influential on the relationship between victimization and depression. This is consistent with past research that has identified minority stress experiences specifically related to discrimination as significantly related to depression (Burton et al, 2013; McCarthy et al., 2014). For this specific sample, depression scores were overall fairly high, and so significant differences may not have been as notable.

Limitations

There are several notable limitations to this study. A major aspect of this study is that all participants were survivors of some form of violence in their lifetime. This means it is not a representative sample of the LGBTQ+ community, and also, their experiences must not be extrapolated outside of LGBTQ+ survivors. However, this limitation also means that we are able to focus on the experiences of LGBTQ+ survivors and evaluate how profiles of violence exposure are related to mental health within this specific sample.

Another major limitation, as previously noted, relates to demographics and sample. This study represents a sample of LGBTQ+ survivors who are highly educated, predominately gender minorities and predominantly of European descent. Furthermore, though this was a statewide sample, Cook County was disproportionately represented, meaning that the majority of participants live in an urban or near-urban environment that is generally seen as more progressive and thus LGBTQ+-affirming (Vasilogambros, 2019; World Population Review, 2022). Cook County in particular has unique resources and community spaces for LGBTQ+ individuals that allow for connection to community, while in general, rural areas have less support for LGBTQ+ community resources, connection, and identity (McConnell et al., 2021; Wike et al., 2021). Future studies should ensure larger sample sizes with more diverse representation across race/ethnicity, gender, and other social identity such as class or age. Some research indicates that Black LGBTQ+ individuals, especially bisexual individuals, may be uniquely vulnerable to the impact of minority stress on mental health outcomes (Binion & Gray, 2020; Finneran & Stephenson, 2013). With a more diverse sample, researchers could more carefully examine how social identity relates to the relationship between victimization and mental health outcomes (e.g. whether experiencing intersectional oppression related to race/ethnicity and LGBTQ+ identity increases vulnerability to minority stress and its effects). A larger, more diverse sample may also be more sensitive to significant differences between classes related to demographics as well as mental health outcomes. Classes within this sample were largely homogenous with regards to demographics, and some differences may not have been statistically significant due to class sizes.

Though this study utilized the minority stress model as a framework, social support could not be incorporated due to missing data. Social support as a variable was measured by the optional Social Reactions Questionnaire (Ullman, 2000), which examines a variety of different reactions individuals may have received from someone from whom they sought support by disclosing an experience of trauma. Around 25% of participants did not complete this measure. Some of the significance of missing data may have been because the measure was optional. It is also possible that some participants did not complete the measure due to difficulty identifying their first disclosure related to their victimization. Given that social support is a key factor in mitigating the effects of minority stress on mental health outcomes, this omission means this analysis does not fully represent the minority stress theory. If there were differences between classes related to social support, more positive social support may have had an ameliorative effect on the relationship between victimization and mental health, while negative social support may have exacerbated negative impact. Overall, research indicates that many forms of traditional social support, such as formal institutions and family support, may be less accessible to LGBTQ+ individuals, which may be a factor in negative mental health outcomes for this population (Bowleg, 2013; Higa et al., 2014; Lyons et al., 2016; Peterson & Panfil, 2014).

Future Directions and Implications

Practical Implications

A major consideration for these results is that LGBTQ+ survivors of violence in Illinois have fairly significant mental health concerns overall. This indicates a greater need for targeted mental health interventions and other resource implementation focused

on LGBTQ+ survivors of various forms of victimization. As the results of this study found that individuals in the High Adult GBV class also experienced significantly higher average PTSD when compared to other classes, it may be particularly relevant to increase efforts to address LGBTQ+ survivors of gender-based violence in adulthood, such as intimate partner violence and sexual assault. Research has demonstrated the unique impacts of gender-based violence on LGBTQ+ survivors, and the difficulties of addressing needs related to this victimization due to self-blame, stereotypes related to gender-based violence and LGBTQ+ individuals, and lack of resources focused on LGBTQ+ survivors (Calton et al., 2016; Long et al., 2007; Merlis & Linville, 2006; Peterson & Panfil, 2014; Ovenden, 2011). More effort should be placed toward providing resources and support toward LGBTQ+ individuals who experience all forms of victimization, but perhaps specifically gender-based violence in adulthood.

In addition, this study emphasizes the importance of resource providers gaining knowledge and understanding related to LGBTQ+ exposure to violence as a part of competence in working with these populations. Services focused on violence prevention and intervention, mental health counseling, and other support provision are often designed with biases related to gender and sexual identity, and thus often fail to meet the needs of LGBTQ+ individuals, or even cause further victimization (Guadalupe-Diaz & Jasinski, 2016; Hardesty et al., 2011; Merlis & Linville, 2006; Merrill & Wolfe, 2000). Understanding the complexities of victimization and mental health within this population can help improve access as well as the quality of service provision to this population. Organizations that work with survivors of violence in different capacities should invest in strategies to improve services for LGBTQ+ individuals and increase accessibility to these

populations. This is especially critical in areas with limited resources; though over half of this sample reported living in urban settings, the needs of rural LGBTQ+ survivors of violence are also critical. Overall, LGBTQ+ individuals in rural settings often report higher experiences of discrimination, along with less access to interpersonal and formal resources to address their needs (Wike et al., 2021). This means that the resources that do exist in these settings are even more critical, and emphasis should be placed on improving competence with LGBTQ+ individuals to ensure that all survivors have legitimate options to serve their needs.

Furthermore, more investment should be placed in developing and maintaining organizations that specifically serve the LGBTQ+ community, supporting these organizations in building capacity to support survivors of violence from an LGBTQ+ focused lens. Within research and activist spaces, LGBTQ+ survivors have emphasized the need to have such resources to address existing barriers to seeking and receiving helpful support related to violence and other needs (Calton et al., 2016).

Research Implications

Unfortunately, given missing data, this study could not factor in social support as part of the model. Future research should examine how both informal and formal support are related to different forms of violence victimization and mental health for this population. Social support has not always been found to be as protective for LGBTQ+ individuals compared to other survivors of violence, due to bias and lack of accessibility (Higa et al., 2014). Identifying the different forms of social support that are useful, and in what ways these impact mental health, could provide meaningful direction for addressing the mental health needs of LGBTQ+ survivors. It may also be useful to further examine

the outcomes of social support, such as effective therapeutic intervention, to understand what resources may be best suited for supporting LGBTQ+ survivors of violence.

Future studies should also be conducted with larger and more diverse sample sizes, perhaps accounting for the differences that may exist related to mental health, victimization, and experiences of oppression. Future research can also build upon this study to explore the distinctions between bigotry motivated violence and other forms of violence. It may be particularly useful to explore how violence motivated by a variety of social identities (e.g. not simply LGBTQ+ identity, but race/ethnicity, gender, age) may differentially impact mental health. More complex analyses of LGBTQ+ survivors of violence and victimization should focus on mixed methods approaches in order to explore more depth related to the experiences of LGBTQ+ survivors. For example, while quantitative data can evaluate relationships between variables, the addition of qualitative interviews could explore the nuances of how individuals feel their experiences of victimization have affected them, their interpretations of how these experiences are related to social identity, and their perspectives on what factors helped them to cope with these experiences. Some researchers such as Meyer (2012) have explored complex relationships between LGBTQ+ identity, experiences of bigotry motivated violence, ethnic identity and community, and other key factors that can impact mental health and coping. Utilizing a mixed methods approach to explore some of these complexities could provide a more holistic perspective on these experiences. Within future studies, it is imperative to maintain consideration for the unique experiences of survivors within the LGBTQ+ community, and to recognize the context in which individuals develop

resilience and coping. The importance of Meyer's minority stress model (2003) is the challenge it posed to past pathologization of LGBTQ+ individuals.

Conclusion

This study examined profiles of violence exposure and how this related to mental health outcomes among LGBTQ+ survivors of violence in Illinois. Within this study, when accounting for control variables such as racial/ethnic minority status, gender minority status, bigotry motivated violence exposure, adaptive coping, and maladaptive coping, these classes did not significantly predict depression, but did significantly predict PTSD. A major note of importance, however, is the overall high rates of mental health symptoms within this sample indicate the need for increased dedication in resources for LGBTQ+ survivors of violence overall, and particular attention to LGBTQ+ survivors of gender-based violence in adulthood. Increased resources to support these survivors may help protect against the negative impacts of victimization, by increasing adaptive coping and by promoting overall positive functioning. In research and practice, it is important to continue recognizing the strengths and resilience of the LGBTQ+ community when exploring exposure to trauma and negative mental health outcomes, to fully understand this community and to ensure we are recognizing the roots of the challenges members of this community experience.

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Appendix A: Additional Tables

Appendix Table 1

Endorsement of control variables across sexual orientation

Sexual Orientation	Bigotry Motivated Violence Exposure M *(SD)*	Adaptive Coping	Maladaptive Coping
Heterosexual or straight	5.50 (6.36)	36.33 (14.98)	11.67 (12.01)
Gay or lesbian	5.26 (4.92)	36.15 (11.76)	9.07 (6.45)
Bisexual	5.51 (4.95)	38.59 (11.91)	11.14 (7.12)
General sample	5.51 (5.02)	37.29 (11.62)	10.41 (6.93)

Appendix Table 2

Endorsement of control variables across race/ethnicity

Participant Race/Ethnicity	Bigotry Motivated Violence Exposure M *(SD)*	Adaptive Coping	Maladaptive Coping
American Indian/Alaskan Native	4.00 (3.16)	38.17 (7.96)	10.17 (5.49)
Asian	3.75 (2.63)	38.38 (10.36)	12.25 (5.82)
Black/African American	6.88 (6.60)	38.03 (13.66)	10.11 (7.48)
Latinx/ Hispanic	6.62 (5.83)	36.72 (14.62)	10.08 (6.79)
Middle Eastern/North African	6.33 (3.21)	32.75 (5.97)	14.50 (3.87)
Pacific Islander/Native Hawaiian	1.50 (0.71)	33.50 (7.78)	14.00 (7.07)
White	4.53 (3.98)	37.18 (10.27)	10.55 (6.87)
Multiracial	4.81 (3.44)	37.34 (10.07)	12.07 (6.48)
Other Race	7.60 (5.13)	36.40 (15.40)	13.20 (8.04)
Ethnic/Racial Minorities	6.71 (5.85)	37.62 (13.57)	10.77 (7.18)
General Sample	5.51 (5.02)	37.29 (11.62)	10.41 (6.93)

Appendix Table 3

Endorsement of control variables across gender

Participant Gender	Bigotry Motivated Violence Exposure M *(SD)*	Adaptive Coping	Maladaptive Coping
Cisgender man	4.86 (4.81)	34.37 (10.58)	8.32 (5.66)
Cisgender woman	4.57 (5.00)	38.01 (11.94)	10.44 (7.33)
Transgender man	6.35 (4.01)	36.59 (13.65)	9.82 (8.12)
Transgender woman	10 (5.16)	32.50 (13.08)	10.17 (5.00)
Genderqueer, gender nonconforming	6.00 (5.20)	41.81 (9.06)	11.85 (6.65)
Other	8.90 (5.26)	42.27 (6.57)	13.60 (5.14)
Multiple selected	6.76 (4.80)	41.50 (8.82)	10.04 (6.10)
Gender Minorities	5.86 (5.06)	38.42 (74.54)	11.14 (7.12)
General Sample	5.51 (5.02)	37.29 (11.62)	10.41 (6.93)