MENTAL HEALTH PROMOTION AND SUICIDE PREVENTION AMONG SEXUALLY AND GENDER DIVERSE ADULTS

by

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ABSTRACT

ANDREA R. KANIUKA Mental health promotion and suicide prevention among sexually and gender diverse adults. (Under the direction of DR. ROBERT J. CRAMER)

Sexual and gender minority (SGM; e.g., lesbian, gay, bisexual, transgender) individuals are recognized as a health disparity population due to the undue burden of mental and physical health disorders among this population. The National Institutes of Health Sexual and Gender Minority Research Office (NIH-SGMRO) generated a social-ecological research framework for SGM health disparity research, articulating need for further research in the areas of (a) minority stress, (b) resilience, (c) violence and discrimination, and (d) intersecting identities. Informed by this research framework, the current dissertation contains three studies attending to these four research areas. Study one is a grounded theory of SGM suicide; 30 interviews with SGM adults in the United States led to the co-construction of the SGM Suicide Risk and Protection (SuRAP) Model, which outlines the impact of minority stress on suicide outcomes for SGM adults. Study two is a psychometric evaluation of the Brief Resilience Scale (BRS) among a sample of alternative sexuality community members (e.g., persons engaging in non-monogamy and kink), validating use of the BRS in future resilience-based research among this population. Study three is an examination of the mental health outcomes of sexual harassment, using a Psychological Mediation Framework (PMF) to assess the ways in which social support, emotion regulation, and internalized minority stress explain the sexual harassment-mental health linkage among trauma-exposed sexual minority women. Findings provide areas for future research including (a) quantitative analysis of the SGM SuRAP model; (b) further multi-groups analysis assessing the impact of sexual orientation, gender identity, and other marginalized identities (e.g., race, disability); and (c) extension of the PMF to other mental health outcomes (e.g.., suicide) with other psychological mediators (e.g., substance use). Taken together, findings indicate that therapeutic modalities such as Affirmative Dialectical Behavior Therapy may be of clinical utility.

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LIST OF ABBREVIATIONS

3ST	Three-Step Theory
ACT	Acceptance and Commitment Therapy
ADHD	Attention Deficit Hyperactivity Disorder
AIC	Akaike's Information Criterion
AMOS	Analysis of Moment Structures
BC CI	Bias Corrected Confidence Interval
BDSM	Bondage/Discipline, Dominance/Submission
BIC	Bayesian Information Criteria
BRS	Brief Resilience Scale
BSI	Brief Symptom Inventory
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
COVID-19	Coronavirus Disease
DBT	Dialectical Behavior Therapy
DERS	Difficulties in Emotion Regulation Scale
DSM-V (DSM-5)	The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition
FRA	European Union Agency for Fundamental Rights
GFI	Goodness of Fit Index
GM	Gender Minority
H	Hypothesis
IMV	Integrated Motivational-Volitional
IOM	Institute of Medicine
IPTS	Interpersonal Theory of Suicide
IRB	Institutional Review Board
LGB	Lesbian, Gay, Bisexual

LGBT	Lesbian, Gay, Bisexual, Transgender
LGBTQ+	Lesbian, Gay, Bisexual, Transgender, Queer, Plus
M	Mean
MSPSS	Multidimensional Scale of Perceived Social Support
NCSF	National Coalition for Sexual Freedom
NIH	National Institutes of Health
NSSI	Non-Suicidal Self-Injury
PMF	Psychological Mediation Framework
PTSD	Post-Traumatic Stress Disorder
QueST	Queer Survivors of Trauma
RMR	Root Mean Square Residual
RMSEA	Root Mean Square Error of Approximation
RQ	Research Question
SBQ-R	Suicidal Behaviors Questionnaire – Revised
SD	Standard Deviation
SGM	Sexual and Gender Minority
SGMRO	Sexual and Gender Minority Research Office
SM	Sexual Minority
SPSS	Statistical Package for Social Sciences
STBs	Suicidal Thoughts and Behaviors
SuRAP	Suicide Risk and Protection
TGD	Transgender and Gender Diverse
UNC Charlotte	University of North Carolina at Charlotte

CHAPTER 1: INTRODUCTION

Sexual and Gender Minority Individuals: A Health Disparity Population

According to the most recent Gallup poll (2022), 7.1% of United States adults identify as a sexual and/or gender minority, a percentage which has steadily grown since 2012; this equates to nearly 15 million Americans (Jones, 2022). Sexual and gender minority (SGM) is an umbrella term analogous to LGBT (lesbian, gay, bisexual, transgender) which includes both sexual minority and gender minority populations (Human Rights Campaign [HRC], n.d.). The term *sexual minority* refers to non-heterosexual individuals, including lesbian, gay, bisexual, pansexual, and asexual individuals. The term *gender minority* refers to non-cisgender individuals, or individuals whose gender identity or expression differs from their sex assigned at birth (i.e., male, female, intersex); this includes transgender, non-binary, gender non-conforming, gender queer, and gender fluid individuals (HRC, n.d.).

The SGM population is identified as a health disparity population by the National Institutes of Health (NIH, 2016) due to the excess burden of both mental and physical health conditions among this population. Focusing specifically on mental health disparities, sexual minority individuals have 2.5 times the rate of lifetime suicide attempt and 1.5 times the rate of depression, anxiety, and substance use disorder, compared to heterosexual individuals (King et al., 2008). Transgender individuals have a lifetime suicide attempt rate that is nine times that of cisgender individuals, with 41% of transgender individuals attempting suicide over their lifetime. Additionally, 39% of transgender individuals report serious psychological distress (James et al., 2016).

Given the well-established mental health disparities among SGM populations, the 2011 Institute of Medicine (IOM) report on the Health of LGBT people indicated mental health, including suicide, as a research priority area among SGM populations, including a specific focus on transgender populations (IOM, 2011); further, reducing suicidal thoughts among both sexual minority and gender minority individuals are Healthy People 2030 objectives (Healthy People 2030, n.d.). As such, the identification of risk and protective factors for mental health disparities and suicide among SGM individuals is imperative.

To this point, as a guiding framework for researching SGM mental health disparities, the NIH Sexual and Gender Minority Research Office (SGMRO) highlighted mental health-related factors to inform research directions including: (a) minority stress, (b) resilience, (c) violence, and (d) intersecting identities, as examples (NIH-SGMRO, 2021a). These four factors of the NIH-SGMRO framework guide the overarching structure of the current dissertation which addresses mental health promotion and suicide prevention among SGM persons.

SGM Minority Stress and Mental Health

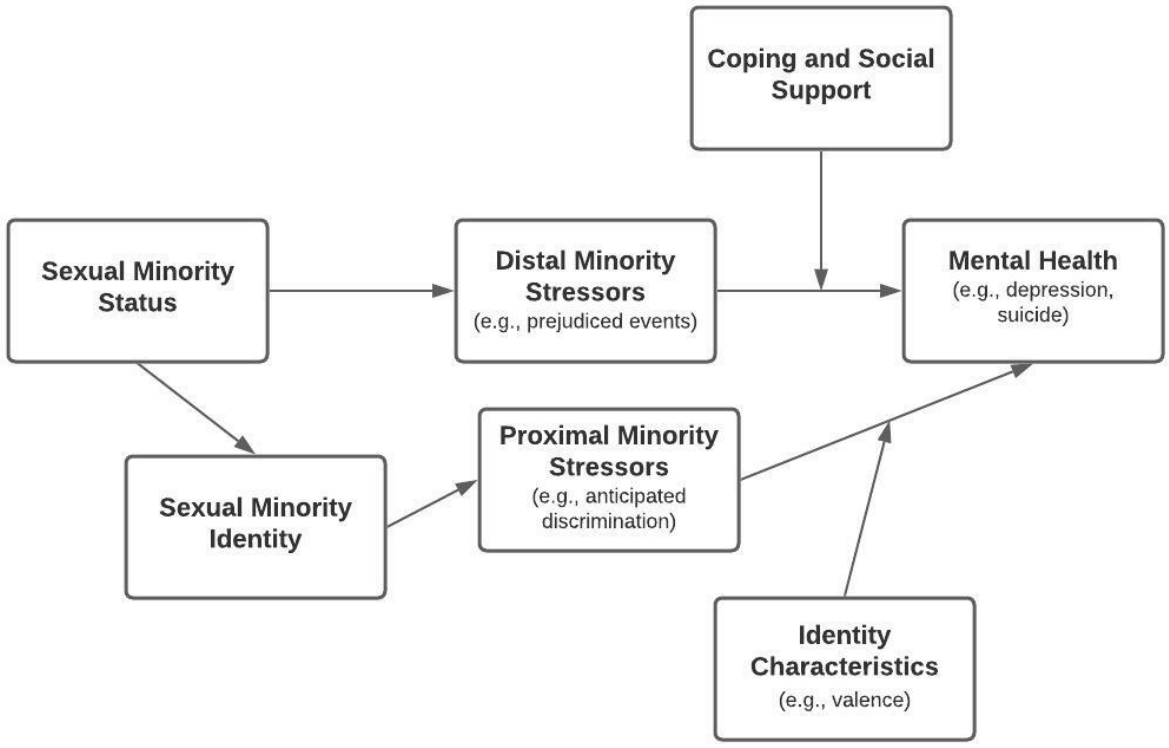
Mental health disparities among SGM individuals stem, in large part, from minority stress experienced due to societal treatment of persons based on of one's sexual orientation and/or gender identity. Minority stress is defined as chronic, "excess stress to which individuals from stigmatized social categories are exposed to as a result of their social, often a minority, position" (Meyer, 2003, p. 676). Minority stress includes enacted experiences of harassment, rejection, and discrimination, as well as the internalization of these stressors (e.g., anticipated stigma, negative self-attitudes, concealment; Herek et al., 2009; Meyer, 2003). Sources of minority stress can be conceptualized across the Social Ecological Model (e.g., White Hughto et al., 2015). At the structural level, social norms, stigma, and the presence/absence of non-discrimination policies represent sources of minority stress for SGM individuals. An example of this stress is lack of health insurance coverage for transgender individuals and minimal laws banning conversion therapy for sexual minority persons. The social climate created by these structural factors can lead to enacted harassment and victimization at the interpersonal level. Indeed, according to the United States Transgender Survey (James et al., 2016), nearly half of gender minority respondents reported past-year verbal harassment and 10% reported past-year physical harassment and sexual assault. These experiences lead to internalization of minority stress at the individual level, including fear of anticipated rejection or victimization and internalized negative feelings towards one's identity (i.e., internalized homophobia/transphobia).

The linkage between minority stress and mental health is outlined by minority stress models, including Meyer's (2003) minority stress theory and Hendricks and Testa's (2012) extension of the model

to gender minority populations. Meyer's (2003) minority stress theory (see Figure 1.1) posits that distal (i.e., enacted discrimination) and proximal (i.e., anticipated discrimination, internalized homophobia) minority stressors lead to negative mental health outcomes and that this relationship is moderated by factors including coping, social support, and sexual identity-related factors (e.g., prominence, valence, and integration). Prominence refers to the importance of one's sexual identity, valence refers to the degree to which one's self-perception of sexual identity is positive or negative, and integration refers to how integrated one's sexual identity is to their overall self-identity.

Figure 1.1

Minority Stress Model



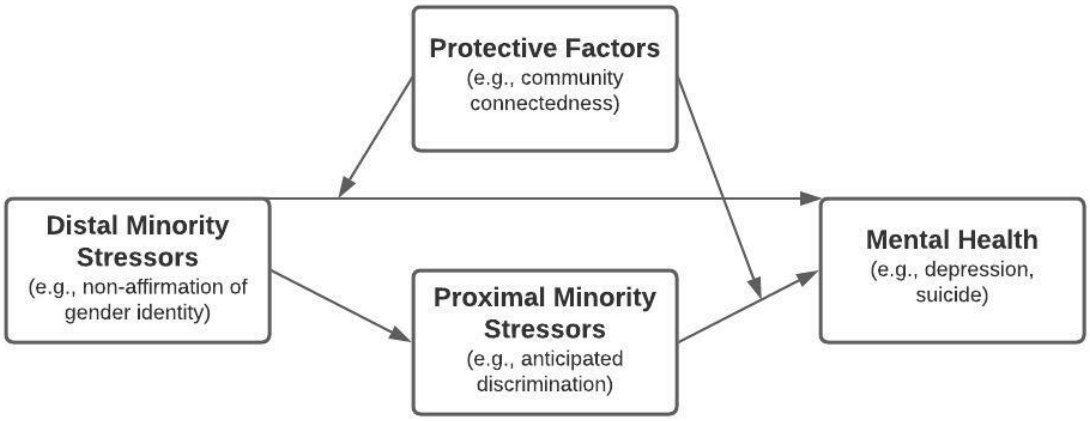
Note. The figure above was adapted from Meyer et al. (2003).

Hendricks and Testa (2012) adapted Meyer's minority stress model to the gender minority population (see Figure 1.2). The following notable differences in the models exist: (a) addition of non-affirmation of gender identity (e.g., misgendering via pronouns, dead names) as a distal stressor and (b)

specification of internalized transphobia, rather than internalized homophobia, as a proximal stressor. The gender minority stress model specifically names community connection and pride as moderators of the minority stress-mental health linkage. It is important to note that the sources of minority stress differ for gender minority persons and can include lack of health insurance coverage for gender affirming care, greater experiences of physical and sexual victimization, workplace and housing discrimination, issues of bathroom access, and legal markers and personal identification (White-Hughto et al., 2015).

Figure 1.2

Gender Minority Stress Model



Note. The figure above was adapted from Hendricks and Testa (2012).

The collective evidence of nearly two decades of research applying SGM minority stress models to mental health outcomes indicates that discrimination is significantly related to poorer mental health among SGM persons (Hoy-Ellis, 2021). For example, gender minority persons who experience gender minority stress (e.g., stigma, discrimination, bias) demonstrate greater anxiety, depression, drug use, and poor psychological well-being (Hunter et al., 2021; Wolford-Clevenger et al., 2021), as do those with greater internalized transphobia (Chodzen et al., 2019). Gender minority stressors, including state laws, identity-related characteristics, and anticipated stigma, are associated with suicidal ideation and suicide attempt among gender minority populations (Kaniuka & Bowling, 2021). Similarly, among sexual

minority persons, perceived discrimination and concealment of sexual orientation are associated with depression, anxiety, stress, and problematic drinking (Ngamake et al., 2016; Pachankis et al., 2020).

Despite consensus that minority stress is a risk factor for negative mental health outcomes among SGM persons, key methodological and theoretical gaps in the literature remain. To begin, much existing research fails to adequately assess the impact of intersectionality, or multiple marginalization (Hoy-Ellis, 2021; Valentine & Shipherd, 2018). Further, research with more inclusive gender minority populations is needed, including those who identify as non-binary and gender non-conforming (Valentine & Shipherd, 2018). Additionally, much existing research examines minority stress processes piecemeal but fails to examine SGM health disparity models in their entirety (Kaniuka & Bowling, 2021; Valentine & Shipherd, 2018). Finally, findings on resilience factors, such as community connection are mixed, as connection to the community can both buffer and confer risk for negative mental health outcomes (Hoy-Ellis, 2021); as such, greater research into protective factors is needed.

SGM Resilience and Mental Health

In contrast to deficit-focused models which focus on mental health disparities among this population, strengths-based approaches center on the resilience that stems from SGM identity, including community connection, resources, and pride (e.g., Health Equity Promotion Model; Fredriksen-Goldsen et al., 2014). Indeed, recent attention has highlighted the need for positive psychological interventions aimed at bolstering resilience (Lytle et al., 2014) which may yield greater effects by drawing on multi-level (e.g., community strengths and resources) influences on mental health (Herrick et al., 2014; Meyer et al., 2015). Per theories of resilience, exposure to adversity (e.g., minority stress) impacts functioning, with outcomes including: (a) succumbing to the adversity (i.e., experiencing significant impacts on functioning), (b) surviving the adversity (i.e., experiencing some negative impact on functioning), (c) resilience, or recovering from the adversity (i.e., returning to baseline functioning), or (d) thriving (i.e., experiencing growth from adversity; Carver, 1998). The exposure of SGM individuals to minority stress may generate resilience by deepening one's pride and understanding of their SGM self-identity, driving connection to the LGBT community, and generating a sense of meaning and future orientation (Schmitz

& Tyler, 2018; Singh, 2013; Singh & McKleroy, 2011). Resilience may reduce mental health risk (e.g., depression, anxiety) among SGM persons, even in the face of experiences of discrimination and victimization (McGarty et al., 2021; Schnarrs et al., 2020). As such, mental health practitioners and researchers alike have asserted the need for research into resiliency among SGM persons in order to inform future affirmative, strengths-based interventions (e.g., Clark et al., 2020; Meyer et al., 2015). Research among trauma exposed SGM individuals may provide key insight into the resilience process, including the ways in which trauma and discrimination may impact social support and coping processes (Sullivan et al., 2017).

SGM Trauma Exposure and Mental Health

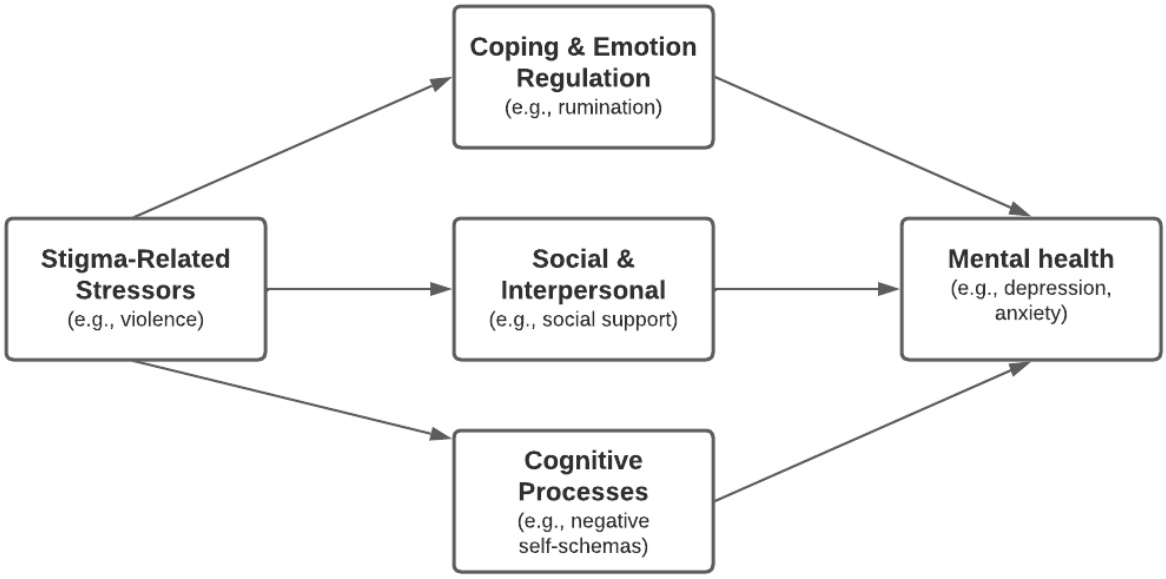
Trauma exposure across the lifespan is an additional concern among SGM persons. Beginning with childhood, SGM persons are more likely to experience adverse childhood experiences, including emotional abuse and neglect and physical and sexual violence (Andersen & Blosnich, 2013). This risk is compounded for persons who are both sexual and gender minorities, with gender diverse sexual minority individuals reporting higher rates of adverse childhood experiences compared to cisgender sexual minority persons (Schnarrs et al., 2019). In adulthood, SGM persons are more likely to experience violent victimization, including intimate partner violence (Henry et al., 2021). SGM persons are also at greater risk of sexual violence victimization (e.g., non-consensual touching, rape) compared to cisgender and heterosexual individuals (Cramer et al., 2012; James et al., 2016; Walters et al., 2013). These trauma experiences across the lifespan confer greater risk for mental health concerns for SGM persons, including depression, anxiety, and post-traumatic stress (Henry et al., 2021; Roberts et al., 2010; Schnarrs et al., 2019).

The Psychological Mediation Framework (PMF; Hatzenbuehler, 2009) can help conceptualize the ways in which violence exposure may be linked to poor mental health for SGM persons (see Figure 1.3). According to the model, the relationship between distal stigma-related stressors (discrimination, violence) and psychopathology is mediated by three psychological processes: (a) coping/emotion regulation (i.e.,

rumination, coping motives), (b) social/interpersonal (i.e., isolation, norms), and (c) cognitive (i.e., hopelessness, negative self-schemas, alcohol expectancies).

Figure 1.3

Psychological Mediation Framework



Note. The figure above was adapted from Hatzenbuehler (2009)

Broadly, the extant literature supports the mediation pathways postulated by Hatzenbuehler (2009), demonstrating that maladaptive coping (e.g., Pineles et al., 2011), emotion dysregulation (e.g., Tull et al., 2018), social support (e.g., Zalta et al., 2021), and negative schemas (e.g., Karatzias et al., 2016) underly the relation between trauma exposure and mental health, such as post-traumatic stress. However, most existing research applying the PMF among SGM persons examines the psychological mediation pathways separately, failing to comprehensively assess the PMF. For example, among sexual minority individuals, the linkage between online victimization and mental health is mediated by anticipated stigma, supporting the cognitive mediation pathway (Chan et al., 2021). Further, social support and emotion dysregulation mediate the linkage between sexual minority identity and lifetime suicide attempt history (Chang et al., 2020). Additionally, shame mediates the linkage between trauma

exposure and mental health symptoms among SGM adults (Scheer et al., 2020). However, research is needed examining the PMF in its entirety in order to best understand the psychological processes that can be points of intervention among trauma exposed SGM persons. Importantly, such research would support recent calls for culturally adapted treatments for trauma exposed SGM individuals (Livingston et al., 2020). Further, greater attention is needed on the impact of poly-victimization stemming from multiple marginalization.

SGM Intersectionality and Mental Health

Sexual orientation and/or gender identity are only a component of an individual's larger identity, and an individual may hold marginalized identities across other demographic categories, such as race. These multiple marginalized identities may confer greater risk of discrimination both within and outside of the SGM community, and consequently widen mental health disparities among SGM persons. For example, SGM persons of minoritized races face cumulative minority stress based on both sexual orientation/gender identity and race; these experiences of racism exist both outside of and within the SGM community, which thwarts community connectedness. Further, SGM persons of minoritized races may also face additional homophobia/transphobia within their racial/ethnic communities beyond the heterosexist attitudes in society at large. This intersectional oppression results in worse mental health outcomes for dually marginalized SGM persons (Balsam et al., 2011). For instance, sexual minority adults who experience discrimination based upon both sexual orientation and race have over twice the odds of a past-year mood or anxiety disorder compared to those without a discrimination history; further, those who experience both gender- and race-based discrimination have over four times the odds of past-year mood or anxiety disorder (Bostwick et al., 2014).

Additional identity-related factors that oft result in exclusion both within and outside of the SGM community are plurisexuality and alternative sexuality. Individuals who identify as plurisexual (also referred to as bisexual+) have attraction to more than one gender (e.g., bisexual, pansexual, queer). A national survey of United States adults indicated that both heterosexual and sexual minority adults report negative attitudes towards bisexual individuals as compared to individuals of other sexual orientations

(Dodge et al., 2016). These negative attitudes are related to greater concealment of bisexual identity, thwarted connection to the SGM community, and lower well-being, as well as higher levels of depression and anxiety among plurisexual individuals, as compared to monosexual (e.g., gay, lesbian, heterosexual) individuals (Feinstein et al., 2020; Kertzner et al., 2009). In terms of alternative sexuality, SGM individuals are more likely to report engagement in alternative sexuality behaviors and relationship dynamics, such as kink, polyamory, and non-monogamy (Richters et al., 2008). SGM individuals who are also part of the alternative sexuality community experience additional stigma and discrimination due to their non-traditional sexual and relational practices (Wright, 2008).

Further, individuals may also have both minority sexual orientations and gender identities; this dual marginalization results in 2.5 times the odds of reported discrimination, depressive symptoms, and attempted suicide among transgender sexual minority persons as compared to cisgender sexual minority persons (Su et al., 2016). Taken together, these findings highlight the need to consider the multiple dimensions of one's identity and how these factors impact experiences of minority stress, violence, and mental health among SGM individuals; such research which centers the heterogeneity of the SGM community is imperative to supporting mental health practitioners and clinical intervention with SGM populations (Clark et al., 2020).

Dissertation Research

Despite improvements in social attitudes towards SGM individuals, as well as legislative progress in SGM rights (e.g., marriage equality), almost half of SGM individuals live in states with poor protection for SGM individuals. As a result, younger SGM individuals report similarly elevated rates of minority stress, psychological distress, and suicide attempts compared to older cohorts of SGM individuals (Meyer et al., 2021). Thus, identifying points of clinical intervention to complement prevention efforts at the policy level is imperative to address mental health disparities among this population. As such, the current dissertation seeks to support health equity among SGM persons by exploring risk and protective factors related to mental health promotion and suicide prevention among SGM adults. The current dissertation is guided by the NIH-SGMRO SGM Health Disparity Research Framework (2021a), focusing on the impact

of risk factors (i.e., minority stress, violence, multiple marginalization) and protective factors (i.e., coping mechanisms, resilience) on SGM mental health and suicide risk. Taken together, this dissertation yields insight into mental health promoting and mental health adverse factors among SGM individuals, illuminating areas for clinical intervention and mental health promotion, consistent with the research priorities of leading national public health agencies.

Study One

Study one is a grounded theory of SGM suicide prevention which explored factors underlying suicidal ideation and suicidal behavior among SGM persons, integrating suicide risk and protective factors with theories of minority stress. Study one builds upon Kaniuka and Bowling's (2021) systematic review which highlighted the need for integration of suicide theory with minority stress theory in order to better serve SGM populations. It addresses the following research questions: (a) How do SGM individuals experience suicidal ideation, including risk and protective factors? and (b) How do SGM individuals experience the progression from suicidal ideation to suicide attempt, including risk and protective factors? The study was funded by the American Psychological Foundation Wayne F. Placek grant which was awarded to Ms. Kaniuka as Principal Investigator under the mentorship of dissertation chair Dr. Robert Cramer. Committee member Dr. Jessamyn Bowling is listed as a co-investigator on the grant. All study procedures were approved by the UNC Charlotte Institutional Review Board (IRB #21-0284; see Appendix). The manuscript was prepared for submission to *Psychology of Sexual Orientation and Gender Diversity*.

Project Significance

Study one is significant in that it contributes to the Healthy People 2030 objectives to reduce the suicide rate among sexual minority and gender minority individuals (Healthy People 2030, n.d.). Study one makes a methodological contribution in its use of qualitative methods in the study of suicide, consistent with recent calls in the suicidology field (Hjelmeland & Knizek, 2010). Further, the use of qualitative methods contributes to the movement within the field of suicide prevention to give voice to those with lived suicide experiences (National Action Alliance for Suicide Prevention, 2014). Narrative

understanding gleaned from this study was used to create an SGM-adapted suicide framework, laying the groundwork for future quantitative research validating the identified constructs and theoretical model generated from the current study. Extending and culturally adapting leading theoretical models of suicide is an imperative step in shaping future SGM-specific prevention and intervention initiatives.

Study Two

Study two examined the psychometric properties of the Brief Resilience Scale (BRS; Smith et al., 2008) among a sample of alternative sexuality (alt-sex) community members, including (a) confirmatory factor analysis of the BRS factor structure (one-factor versus two-factor structure) and (b) measurement invariance across demographic groups (i.e., sexual orientation, gender identity, sexual assault history). Study two builds upon Ms. Kaniuka's existing line of research which explores positive psychological factors (e.g., gratitude) among SGM persons (Kaniuka et al., 2020). Study two stemmed from a community-academic partnership between UNC Charlotte and the National Coalition for Sexual Freedom (NCSF), a nationally leading alt-sex education and advocacy group. All study procedures were approved by the UNC Charlotte Institutional Review Board (IRB #19-0494; see Appendix B). Dissertation committee member Dr. Jessamyn Bowling is the Principal Investigator for this project and Ms. Kaniuka is approved as key personnel on this project. The manuscript was prepared for submission to the *Journal of Sex Research*.

Project Significance

Study two is significant in that it addresses recent calls in the literature to investigate positive psychological factors among SGM individuals (e.g., Lytle et al., 2014). Further, it addresses resilience, a factor identified in the NIH-SGMRO framework for SGM mental health disparities (NIH, 2021a). Additionally, trauma-informed research from a strengths-based approach is consistent with the NIH's Strategic Plan to Advance research on the Health and Well-being of Sexual and Gender Minorities (NIH, 2021b). Study two makes a methodological contribution by examining the psychometric rigor of the BRS among alt-sex community members, the first analysis of the psychometric properties of the BRS among this marginalized group. Burgeoning evidence indicates that alt-sex community members may in fact

have better mental health outcomes compared to the general population (Brown et al., 2020; Gemberling et al., 2015; Richters et al., 2008). Findings from the current study provide insight into a factor underlying mental health promotion in this population. Finally, the proposed study has implications for clinical practice; by examining measurement invariance by sexual violence victimization history, findings provide insight for providers in victims services into the nature of resilience for trauma-exposed individuals.

Study Three

Study three explored the PMF (Hatzenbuehler, 2009) applied to the linkage between sexual violence victimization and mental health (i.e., depression, anxiety, post-traumatic stress) among a sample of trauma exposed sexual minority women. The study examined general (e.g., social support, emotion dysregulation) and sexual minority-specific (e.g., internalized homophobia) psychological mediators; further, the study examined the potential moderating role of gender identity (i.e., cisgender vs. transgender and gender diverse [TGD]) and sexual orientation (i.e., monosexual vs. plurisexual) on the mediation model. Study three builds upon Ms. Kaniuka's prior work examining a psychological mediation framework of sexual violence victimization and suicide risk among heterosexual and sexual minority adults (Kaniuka et al., 2021). Study three is a secondary data analysis of data collected for Project QueST: Queer Survivors of Trauma by Dr. Jillian Scheer at Syracuse University. All study procedures were approved by the Syracuse University Institutional Review Board (IRB #20-306; see Appendix B). A secondary data analysis exemption was granted by the UNC Charlotte IRB (IRB #22-0738; see Appendix B). The manuscript was prepared for submission to *Psychology & Sexuality*.

Project Significance

Study three is significant in that it supports the NIH-SGMRO strategic plan to advance research on the health and well-being of SGM individuals (2021b). Specifically, the strategic plan highlights the need for trauma-informed research to better understand the linkage between trauma and health, while considering community factors (e.g., social support) and strengths-based approaches (e.g., community connection, coping). Study three makes a theoretical contribution by examining the PMF in its entirety, rather than in a piecemeal fashion; findings from the current study glean insight not only into the

presence/absence of mediating pathways, but also which mediating pathways are most related to the trauma-mental health linkage. Finally, study three has implications for clinical practice; identifying the underlying mechanism by which trauma impacts mental health among trauma-exposed sexual minority women can be used to develop culturally tailored evidence-based interventions for this population.

CHAPTER 2: A GROUNDED THEORY OF SEXUAL AND GENDER MINORITY SUICIDE RISK: THE SGM SUICIDE RISK AND PROTECTION (SuRAP) MODEL

Introduction

Sexual and gender minority (SGM) individuals are at increased risk for suicidal thoughts and behaviors (STBs), including death by suicide, suicide attempt, and suicidal ideation (Hottes et al., 2016; King et al., 2008). SGM adults are at more than two times increased risk for lifetime suicidal ideation, lifetime suicide attempt, and 12-month suicide as compared to their heterosexual counterparts (King et al., 2008), with 20% of LGB individuals reporting a lifetime history of suicide attempt (Hottes et al., 2016). Further, 46% of transgender men and 42% of transgender women report a lifetime history of suicide attempt (Haas et al., 2014). Despite the identification of risk and protective factors among SGM persons (e.g., minority stress, community connectedness; Cramer et al., 2015; Haas et al., 2014; Kaniuka et al., 2017), little progress has been made in the generation of culturally adapted models of STBs among SGM individuals.

Risk for STBs among SGM individuals can be considered through two frameworks: suicide ideation-to-action frameworks and SGM health disparity models. Each perspective holds strengths and weaknesses in conceptualizing STBs among this population, yet theoretical integration can advance SGM suicide research and intervention design. Although suicide risk models are validated among other populations, they fail to consider SGM-specific identity and experiences (e.g., heterosexist discrimination, identity concealment, internalized homophobia; Walch et al., 2016) that may impact risk. Conversely, SGM health disparity models incorporate population-specific factors but are infrequently applied to suicide. Recent reviews have called attention to the need for the investigation of the applicability of suicide ideation-to-action frameworks to SGM populations (Wolford-Clevenger et al., 2018), as well as the importance of minority stress and SGM health disparity models in SGM suicide research (Kaniuka & Bowling, 2021).

Ideation-to-Action Frameworks of Suicide Risk

Ideation-to-action frameworks hold that (a) the development of suicidal ideation and (b) the progression from suicidal ideation to suicide attempt represent two distinct processes with unique contributing factors (Klonsky & May, 2014). For example, Joiner's Interpersonal Theory of Suicide (IPTS; Joiner, 2005; Van Orden et al., 2010) asserts that suicidal ideation is the result of perceived thwarted interpersonal needs, which when coupled with an acquired capability for suicide (e.g., decreased fear of death), results in a suicide attempt. The Three-Step Theory (3ST; Klonsky & May, 2015) of suicide posits that psychological pain, hopelessness, and lack of connectedness contribute to the development of suicidal ideation. A combination of dispositional (e.g., genetic), acquired (e.g., increased pain tolerance), and practical (e.g., access to means) factors explain the progression from ideation to attempt. Additionally, the integrated motivational-volitional (IMV; O'Connor & Kirtley, 2018) model of suicidal behavior proposes a three-phase ideation-to-action framework which includes: (a) the pre-motivational phase, (e.g., genetic factors, negative/stressful live events); (b) the motivational phase, during which an individual experiences feelings of defeat followed by entrapment leading to ideation; and (c) the volitional phase, during which an individual engages in suicidal behavior. The progression between each phase of the IMV is moderated by various general population risk and protective factors (e.g., thwarted belongingness, access to means).

Research testing ideation-to-action frameworks among SGM populations is limited mostly to individual constructs from the IPTS; for example, both perceived burdensomeness and thwarted belongingness confer risk for STBs among the SGM population (Chang et al., 2021; Fulginiti et al., 2020; Grossman et al., 2016; Hill et al., 2017; Wolford-Clevenger et al., 2020). Regarding the 3ST, factors such as hopelessness and social support are associated with suicide risk among SGM persons (Carter et al., 2019; Fulginiti et al., 2021; Liu & Mustanski, 2012; Mustanski & Liu, 2013). Further, application of the IMV model to sexual minority adults in the United Kingdom showed that sexual minority individuals reported higher levels of defeat, entrapment, suicidal ideation, and suicidal intent compared to heterosexual individuals (Rasmussen et al., 2019). Taken together, the existing literature suggests that

traditional suicide risk and protective factors identified within ideation-to-action frameworks of suicide extend to SGM populations.

SGM Health Disparity Models

Ideation-to-action frameworks of STBs may not capture the experiences unique to SGM individuals that either exacerbate or reduce the risk for suicide. In contrast, SGM health disparity models (e.g., Hatzenbuehler, 2009; Hendricks & Testa, 2012; Meyer, 2003) specifically focus on the impact of the stigma and stress that minority individuals experience because of their identity on mental and physical health disparities, as well as the impact of community-specific protective factors that bolster resilience. According to SGM health disparities models, increased risk of mental health disorders among sexual minority persons can be attributed to minority stress, conceptualized as excess, chronic stress that results from membership in a stigmatized social group (Meyer, 2003). Per Meyer's (2003) minority stress model, and Hendrick and Testa's (2012) gender minority adaptation, negative mental health outcomes are attributable to: (a) distal stressful events, such as discrimination and violence, (b) proximal factors, meaning anticipated rejection, discrimination, and harassment and (c) internalized factors, including concealment (e.g., hiding one's sexual orientation out of fear) and internalized homophobia (e.g., internalizing stigma); the impact of these stress processes on health outcomes is mitigated by factors such as coping, social support, community connection, and identity-related factors (e.g., prominence, integration, valence).

Experiences of minority stress confer greater risk for STBs among SGM populations. For example, among gender minority individuals, stressors including anti-transgender stigma, discrimination, rejection, victimization, and non-affirmation of identity are related to STBs (Tebbe & Moradi, 2016). Similarly, among sexual minority individuals, factors such as rejection, discrimination, and victimization exacerbate the risk for STBs (Livingston et al., 2015; Mereish et al., 2019; Plöderl et al., 2014). However, few attempts at integrating SGM health disparity models with ideation-to-action frameworks have been made; for example, Testa and colleagues (2017) found that gender minority stressors such as internalized transphobia and negative expectations conferred greater STBs risk via IPTS factors such as perceived

burdensomeness and thwarted belongingness. Similarly, Baams et al. (2015) found that the linkage between sexual minority stressors (i.e., coming-out stress, victimization) and suicidal ideation was mediated by perceived burdensomeness. The interrelationship between minority stressors and ideation-to-action suicide theory constructs as indicated by the limited extant literature calls attention to the need for integration of such frameworks. Qualitative research, which allows participants' lived experiences to articulate the underlying mechanisms of relationships among constructs, may provide needed insight into the dynamic interplay between minority stressors and traditional suicide risk/protective factors in conferring risk for suicidal ideation and behaviors among the SGM population.

Current Qualitative Understanding of SGM Suicide

Qualitative research exploring lived experiences of suicide among SGM persons is limited and mostly centers on SGM-specific suicide risk/protective factors. For example, among a sample of SGM adults, factors related to suicide attempt history included identity-related factors such as concealment, internalized stigma, and intersectionality, as well as interpersonal factors such as peer support (Williams et al., 2018). Further, among sexual minority men with lived experience of STBs or suicide loss, factors including homophobia and stigma, community connection, and cultural resilience were identified as central to suicide prevention among sexual minority populations (Ferlatte et al., 2019). Qualitative understanding of suicide risk also indicates that the coming out process, including peer and family response, self-acceptance, and relationship factors impact suicide risk (Rivers et al., 2018; Williams et al; 2021). Among transgender adults, factors such as social support, acceptance of one's identity, coming out, transitioning, coping and problem-solving, and reasons for living (e.g., relationships, religious or spiritual beliefs) were identified as protective factors for suicidal ideation and attempt (Moody et al., 2015). Most recently, Clark and colleagues (2022) explored the process of acquiring capability for suicide among SGM individuals, representing, to our knowledge, the only existing qualitative research integrating minority stress and ideation-to-action frameworks. Among this sample of SGM adults, experiences of identity rejection in childhood, suicide within social networks, and community and structural stigma all contributed to acquired capability (Clark et al., 2022). These nascent findings

indicate that further exploration of how minority stress and ideation-to-action frameworks are interrelated is needed.

The Current Study

The overall goal of the current study is to examine minority stress factors related to STBs within an ideation-to-action framework among SGM individuals. Doing so fills an existing gap in the literature in moving toward a culturally informed understanding of SGM suicide. The current study sought to answer the following research questions, guided by an ideation-to-action framework:

RQ1: How do SGM individuals experience suicidal ideation, including risk and protective factors?

RQ2: How do SGM individuals experience the progression from suicidal ideation to suicide attempt, including risk and protective factors?

Materials and Methods

Study Design and Setting

The current study uses Charmaz's (2014) constructivist grounded theory methodology to examine minority stress-related risk (e.g., identity concealment) and protective (e.g., SGM community involvement) factors related to the development of suicidal ideation and the transition from ideation to attempt among SGM adults in the United States. A constructivist grounded theory approach leads to the identification of conceptual categories to generate a theory co-constructed by the participants and researcher (Charmaz, 2014). In this case, the goal is to generate an ideation-to-action informed theory of STBs unique to SGM individuals. Germane to a constructivist grounded theory approach is the exploration of a specific context, in this case considering the lived experiences of factors among SGM persons which contribute to, or buffer, STBs (Charmaz, 2014). Data were collected through semi-structured interviews (see Appendix A), conducted by the lead author via video conferencing between June and August 2021.

Pilot Interviews

Two pilot interviews were conducted by the lead author to refine the interview guide instrument. Each interview was conducted over the phone and took approximately 45 minutes. Across both interviews, one with a gay, cisgender man and one with a queer, trans man, the interview guide successfully addressed both research questions. For example, via the interview questions, the participants provided information about the risk and protective factors related to their suicidal ideation and factors related to a lack of engagement in behavior with suicidal intent. The initial interview guide was adapted following these pilot interviews by adding follow-up questions related to sexual orientation/gender identity, preferred pronouns, and clarifying the presence or absence of suicidal intent when discussing self-harm behaviors.

Study Participants

Participants met the following inclusion criteria to be deemed eligible to participate: (a) being an adult (18+ years of age), (b) identifying as an SGM individual, (c) endorsing a history of suicidal ideation and/or attempt (d) being English-speaking, and (e) living within the United States due to cross-national differences in experiences of SGM individuals (Lee & Ostergard, 2017; Smith, 2011). In total, 30 self-identified SGM adults residing in the United States completed interviews, consistent with sample size requirements in the range of 20-50 interviews for constructivist grounded theory methodology (Creswell, 1998; Morse, 2001). The sample size was flexible and adjusted based upon when theoretical saturation (i.e., no new insights) was reached (Saunders et al., 2018).

Sampling and Recruitment

Participants were recruited by email and social media via local, state, and national SGM-and suicide-focused groups and organizations (e.g., regional Human Rights Campaign chapters, Matthew Shepard Foundation, American Association of Suicidology). Study recruitment advertisements for email and social media distribution were sent to a designated contact (e.g., director, outreach coordinator) at each organization. The study advertisement described the study as about “LGBTQ+ personal experiences with suicidal thinking or attempts” and prompted interested individuals to complete an eligibility survey via Qualtrics. The eligibility survey requested information concerning (a) age (18+), (b) sexual orientation

and gender identity, (c) lifetime suicidal ideation and/or behavior using Item 1 of the Suicidal Behaviors Questionnaire-Revised (SBQ-R; Osman et al., 2001), and (d) state of residence.

The proposed study used maximum variation sampling, a purposive sampling strategy that strives to compile a diverse sample of participants to understand a phenomenon across different people and settings (Patton, 1990). Maximum variation sampling constructed a sample that varied by both sexual orientation/gender identity and geographic location. The lead author compiled a list of all eligible participants, noting participants' sexual orientation/gender identity and geographic region as reported in the eligibility survey. Geographic variation was determined by recoding state of residence in accordance with U.S. census bureau categories of geographic region (e.g., northeast; United States, 1994). Participants were then selected from the said list to reflect various SGM identities and geographic regions. The goal of the chosen sampling technique was to capture the diversity of SGM experiences across various identities while also representing individuals across the United States because of region-specific differences in attitudes, stigma, and discrimination towards the SGM community (Hasenbush et al., 2014). Ineligible participants were sent an email thanking them for their interest and providing them with a list of resources; eligible participants were emailed to schedule an interview.

Data Collection Protocol

Each participant completed one interview via Zoom, an online video conferencing software. Interviews ranged in length from 26 minutes to 1 hour and 23 minutes (M_{length}: *0:53:47*). Interview questions and prompts were guided by existing minority stress and ideation-to-action suicide framework literature (e.g., Klonsky & May, 2015; Meyer, 2003; see Appendix A). Participants were compensated $40.00 via an Amazon e-gift card for study participation to enhance recruitment (Grady, 2005). All interviews were video recorded via the Zoom application for later transcription. All interview audio recordings were transcribed verbatim via Temi.com, an automatic transcription service, which transcribes audio recordings with 95% accuracy. The transcriptions included timestamps and speaker identification and were exported as word files. The lead author and a paid undergraduate research assistant co-constructed an instruction manual for proofreading and editing all transcripts. The undergraduate research

assistant then underwent consensus training with the lead author on proofreading transcripts. Finally, the undergraduate research assistant proofread and edited all transcriptions, as recommended when using automatic transcription services (Bokhove & Downey, 2018).

Human Subjects Considerations

All participants underwent written and verbal consenting before beginning the interview. All participants were provided with the option to take a break, stop the interview, or withdraw from the study completely if so desired. Participants could refuse to answer any questions throughout the interview (see Appendix A for interview guide script). Regarding confidentiality, pseudonyms were chosen by the participant and used during the interview and when reporting our findings, as this is a standard best practice in qualitative interview research (Kaiser, 2009). Given the sensitive nature of the topic being discussed and the potential disclosure of suicidal ideation or behavior, a list of local, state, and national suicide prevention resources (e.g., crisis hotlines) was available to study participants via the consent form and debriefing email distributed immediately following the interview.

Research Team

The primary research team comprised student researchers across training levels (e.g., undergraduate, graduate) and senior team members, diverse with respect to minority sexual orientation and gender identities. The team had collective expertise in (a) working with SGM populations and researching, (b) providing clinical suicide and non-suicidal self-injury services, and (c) conducting qualitative research. The team was interdisciplinary, with training in clinical psychology, public health, and communication studies. Student research assistants received training in grounded theory methodology (e.g., select readings from Charmaz, 2014), positionality, SGM health (e.g., journal club discussing Meyer, 2003), and suicide theory (e.g., journal club discussing Klosky & May, 2015 and O'Connor & Kirtley, 2018). In terms of research responsibilities, the lead author conducted all interviews and led the data analysis team which included three undergraduate students and one graduate student. Senior team members provided subject matter expertise in SGM health, suicide prevention, and qualitative methods.

Analysis

Per grounded theory methodology, transcripts of semi-structured interviews were coded inductively, derived from the data itself, including in-vivo coding (i.e., using the participant's own words; Saldaña, 2013). Data analysis followed a four-stage iterative process, with guidance from a subject matter expert in grounded theory methodology: (a) open coding, (b) focused coding, (c) axial coding, and (d) theoretical coding. During the initial phase of data coding, the lead author and a graduate research assistant completed line-by-line comparative coding of 20% of the data (6/30 interviews). An initial codebook was generated from these six interviews. During the focused coding phase of data analysis, a team of four research assistants underwent codebook training with the lead author, which involved refining the codebook and consensus coding two transcripts. The research team then conducted focused coding of all 30 interviews, with each team member coding approximately 20% of the data. The third phase of data analysis involved axial coding, in which the lead author engaged in peer debriefing with subject matter experts in SGM health and suicide research. During this phase, codes were collapsed and relationships among the codes were discussed. During the final phase of data analysis, the codes were extended to an integrated theoretical model by consulting with subject matter experts in SGM health, suicide research, and grounded theory methodology.

Methodological and Interpretative Rigor

The research team engaged in multiple efforts to demonstrate credibility, transferability, dependability, and confirmability of study findings. In terms of credibility, member checks were conducted during the participant interviews, in which the interviewer periodically paraphrased and summarized participants' responses, asking for clarification and confirming the correct interpretation. Additionally, to clarify participants' responses, probes were used to gain more information (e.g., "What does that mean to you"). Further, Table 2.1 contains participant characteristics including sexual orientation and gender identity, age, and region to allow the reader to determine transferability to other samples; as well, we include participant descriptors (i.e., sexual orientation and gender identity), along with their quotes, to contextualize their responses (Lincoln & Guba, 1985). In terms of dependability, the research team thoroughly documented all steps of the research process, including raw, proofread, and

coded transcripts; each iteration of the codebook; meeting minutes; team member responsibilities (e.g., which team member coded which transcript); research manuals and training documents; and research memos. This documentation allows for auditing of our research process. Finally, we demonstrate confirmability by relying heavily on participant quotes from across our sample, rather than our personal narrative interpretation or a select few participants.

Reflexivity

In line with a constructivist grounded theory approach, the research team kept reflexive journals, regularly writing memos related to the research process, including study procedures, coding and analysis decisions, and general insights and reflections (Finlay, 2002; Ortlipp, 2008). As part of the training process, all research team members were trained on the topic of positionality and wrote their own personal positionality statements. As a team, we discussed how our membership within and outside of the SGM community could impact our interpretations. Further, we discussed how our prior knowledge of SGM theory and suicide theory may have impacted the data analysis process. Given that the team was diverse in terms of sexual orientation, gender identity, race, and training level, we each brought unique perspectives to the research process and discussed how our personal identities were a strength in the research process.

Results

Figure 2.1 contains the SGM Suicide Risk and Protection (SuRAP) model outlining the development of suicidal ideation and progression to suicide attempt among our sample of SGM adults. A combination of precipitating vulnerabilities and stressors, including (a) underlying mental health conditions, (b) triggering stressors, and (c) facing minority stress were antecedent conditions to lacking a solution, including feeling hopeless and/or trapped. The presence of these feelings led to suicidal ideation. The progression from suicidal ideation to suicide attempt was halted by factors including (a) accessing mental health services, (b) coping and emotionally regulating, (c) connecting to others, and (d) identifying reasons for living. The absence of these factors resulted in acquiring capability for suicide. The progression from acquired capability to suicide attempt was, in some cases, halted by the presence of

protective factors outlined above. Importantly, prior suicide attempt history also contributed to acquired capability. Each model component is explored in greater detail below, accompanied by representative participant quotations and participant descriptors (pseudonym, gender identity, sexual orientation, and/or pronouns); participant descriptors are presented using participants' own terminology.

Precipitating Vulnerabilities and Stressors: "There Was a Dam Waiting to Burst"

Participants recounted a variety of factors contributing to the onset of their suicidal ideation, which we refer to as precipitating vulnerabilities and stressors. Participants articulated the ways (a) underlying mental health conditions, (b) general life stressors, and (c) minority stress related to their sexual and/or gender identity collectively precipitated suicidal ideation. As Joey, who is non-binary and bisexual, explained:

> I think, like, maybe 50% of me having a bad time – wanting to die or self-harming – was being bipolar. And the other 50% was, like, I was just, like, having a bad time at school, having a bad time... like, the world was sad.

Below we explore how these vulnerabilities and stressors contributed to the onset of suicidal ideation among our participants.

Underlying Mental Health Conditions: "Having a Brain That Works Differently"

Many participants discussed how their mental health conditions served as an underlying vulnerability or contributing factor to their suicidal thoughts and behaviors. Participants mentioned a variety of mental health diagnoses and symptoms, including depression, bipolar disorder, borderline personality disorder, anxiety disorders (including post-traumatic stress disorder), attention deficit hyperactivity disorder (ADHD), substance use disorders, and eating disorders. Many participants articulated that their suicidal thoughts and behaviors stemmed from their mental health conditions. For example, TJ, a bisexual transgender man, described how his suicidal ideation tended to ebb and flow with his eating disorder severity:

> I was really, like, deep in my eating disorder and I was just feeling like garbage and that was probably the first time it [suicidal ideation] really came up. And then while I was in college, I

relapsed. And that second time, I definitely had some of those same thoughts.

Other participants' mental health conditions were triggered by life stressors, like Billy who is asexual and agender. They shared:

> So, when I graduated high school and went to college, um, that in a lot of ways, that kind of triggered the depression, which was kind of background, uh, to being kind of, full-blown like, in the front of my mind.

It is important to note that not all participants recounted mental health diagnoses or symptoms, but rather that a combination of precipitating stressors and/or minority stress was the catalyst for their suicidal ideation. As such, we consider underlying mental health conditions a sufficient, but not necessary, factor contributing to suicidal ideation.

Triggering Stressors: "Every Small Thing Was Just Another Weight on Top of Me"

Beyond underlying mental health conditions, participants also recounted how triggering stressful experiences and circumstances contributed to the onset of suicidal thoughts. Participants reported experiences such as familial stress, childhood abuse, childhood bullying, romantic rejection, financial strain, and housing instability contributing to their suicidal thoughts. Importantly, multiple participants clarified that there was not one specific triggering stressor, but rather that managing multiple stressors contributed to their suicidal thoughts. For instance, Adrian, who is, queer, non-binary, and transmasculine, recounted: "*I think it was just, like, the combination of things of, like, the going to school all day and being miserable there and then being miserable at home*." For some participants, a component of this accumulative stress was related to their sexual orientation and/or gender identity, explored below.

Facing Minority Stress: "It Would Be Different if One of Those Parts of Me Weren't There"

The role, or lack thereof, of minority stress in the development of suicidal ideation presented in a variety of ways for participants, and it often did not present as a sufficient or singular contributing factor. In some instances, participants shared how familial rejection and internalized identity struggles contributed to their suicidal ideation. For many participants, suicidal thoughts stemmed from the coming

out process due to both grappling with their identity and fearing rejection. As Zoe, who is pansexual and genderqueer, explained: "*I was just like confused about, like, 'who – who am I?' you know, and, like, 'Do I even want to explore who I am, because will I even be accepted if I explore?'*" Working through their identity and fearing rejection precipitated their suicidality. Adam, who is questioning his sexual orientation, faced similar difficulties when losing friends and "*being ostracized by people who I looked up to or trusted*" after coming out as a transgender man.

Other participants clarified that their suicidal thoughts and behaviors did not stem directly from minority stress, but that minority stress was a contributing factor along with other vulnerabilities (e.g., mental health). Ramona, a cisgender woman who identifies as bisexual, asexual, and questioning, explained: "*Like even when like my sexuality wasn't, like I said, it's not a huge factor in my depression. It's just a smaller one, but it's not the main factor*." Participants also explained that sexual orientation and/or gender identity contributed to an overall feeling of being different. This sense of feeling different often occurred before participants came to identify with a minority sexual orientation or gender identity and compounded other stressors. Billy, who is agender and asexual, explained how lacking an identity label led to difficulty connecting to others, a contributing factor to their suicidal ideation, stating: "*It's not just about feeling different, but about not having a name for that and not knowing what it was*."

For some participants, their experiences of minority stress were extremely traumatizing, such as conversion therapy and homelessness. In these instances, participants explained how discrimination and rejection directly contributed to acquired capability for suicide, denoted by the dashed line in Figure 2.1. For example, Alexander, a queer, gay, cisgender man, shared: "*Actually, the first time I thought about suicide was the night that after my first day in conversion therapy. Um, and honestly, I would have attempted, had I had means there with me*." Additionally, Mike, a gay transgender man, attributed his suicidal thoughts to going through puberty, stating: "*I'm 99% sure it was puberty. I don't think from a hormonal level, but from a 'I don't want my body to make these changes' level*." Recounting his experience living on the streets after his family kicked him out due to being gay, Bob, who is a cisgender man, recounted:

> At that moment, I wasn't, like, uh, getting food. I didn't have accommodation. I was sleeping in the streets. It was so cold. So, this is something which really affected my mind. And each and every time, I would think, like, "This life, it's not worth living." And I would wish, uh, "It's better dying, rather than staying alive and going all through these challenges."

Finally, some participants stated that minority stress was not a factor in their suicidality at all. In these instances, participants reported that either (a) they did not experience discrimination or rejection and/or (b) they felt at peace with their identity(ies) and were thus unaffected by minority stress. For example, Lily, who labels her gender identity and sexual orientation as 'lesbian,' explained:

> I think my relationship with my sexuality has always been very positive in the sense of like being, like, terminally online as like a 13-year-old. I had exposure to a very different, like, a very welcoming, um, or, like, uh, a very diverse group, like, of possibilities for, like, sexualities, whatever, online. And so, when I did realize I was a lesbian, it wasn't like an "Oh shit" moment. It was like a uh, like, "Eureka. Finally, like, I understand." And so, that identity has always been a lot of joy. So, it hasn't… that hasn't been the cause of any thoughts.

The experiences relayed by the participants display the complex and heterogeneous ways in which minority stress does, and does not, contribute to the development of suicidal ideation among SGM individuals.

Lacking a Solution: "The Only Way Out Is to Not Be Here Anymore"

Participants reported feeling hopeless and trapped, stemming from an inability to see a solution to their vulnerabilities and stressors. First, participants commonly felt hopeless, or pessimistic about the future. Participants, such as Maurice, a non-binary lesbian, explained "*I was like, 'Oh, there's like…it's just going to be like this forever.'"* Participants, such as Nellie, a bisexual, cisgender woman, commonly commented that they felt that things were *"never going to change," "never going to get better,*" and "*There's like no light at the end of the tunnel*."

Many participants reported feeling "stuck" and "trapped." Due to feeling trapped, they felt that suicide was the only means of escape from their problems. As M, who is non-binary and asexual

articulated, suicide was seen as an escape: "*If all else fails, this is the one thing. Like, I can pull the plug*." Jasper, a gay, cisgender man articulated that minority stress stemming from his sexual orientation, immigrant identity, race and ethnicity that was structural made him feel a lack of control and like there was no solution to his external circumstances or his resulting feelings. Jasper described that the impact of these stressors was a thinking pattern where:

> I would just think, "Okay, this is the worst situation ever. And I don't think I ever, uh, just ever [will] escape from this." And the only way I'm going to do this is just for me to be disengaged from that situation, which means for me to like, obviously be gone from this world.

Maurice, a non-binary lesbian, who also felt a sense of hopelessness, similarly explained fear of "*having no way out*." Participants reported both external entrapment, or feeling trapped by their circumstances, as well as internal entrapment, or a sense of being trapped with their feelings. Once hopelessness or entrapment was present, participants developed suicidal ideation, seeing suicide as a means of escape and relief from a situation without other solutions or the chance of improving.

Halting the Suicide Cascade

Once suicidal ideation was present, participants detailed a variety of protective factors that reduced their suicidal ideation and/or stopped them from progressing to suicidal behavior including (a) accessing mental health services, (b) coping and emotionally regulating, (c) connecting to others, and (d) identifying reasons for living. Each sub-component of halting the suicide cascade is described in greater detail below.

Accessing Mental Health Services: "I Wouldn't Kill Myself as Long as I was on this Medication"

For many participants, accessing mental health services, including psychotropic medication (e.g., anti-depressants), diagnosis of a mental disorder, therapy, and in some cases, hospitalization, was pivotal in reducing suicidal ideation and preventing suicidal behavior. Some participants were able to identify specific treatment modalities that were helpful, such as Phoenix, who is gay and describes their gender identity as genderqueer/genderfluid/trans:

> I got my diagnosis of borderline personality disorder and then they, um, uh...what's that word

> when they, they referred me to, uh, dialectical behavior therapy and that was like a complete eye-opener and a life-changing thing that happened.

Participants also provided insight into how mental health services, especially therapy, were helpful; for example, Mike a gay, transgender man explained "*Now when new things happen, I'm significantly better equipped to deal with them at the time*." However, despite many participants finding mental health services improved their suicidal thoughts and behaviors, some mental health services contributed to worsening suicidality, which was due to a lack of suicide competency among participants, or anti-LGBT therapies (i.e., conversion therapy). As explained by Nellie, a bisexual, cisgender woman:

> I actually expressed these thoughts to a therapist once a long time ago. They were terrible as therapists. And they were like, "Well, if you really wanted to un-alive [kill] yourself, then you would just find a way to, so you're just making excuses."

Additionally, participants who experienced hospitalization for their suicidal thoughts often reported negative effects, such as Zoe, who is pansexual and genderqueer. As they explained, "*I also was super traumatized from that psych ward incident. And I was just like, 'I'm never telling a therapist again that I want to un-alive [kill] myself 'cause I can't afford the psych ward*.'" Unfortunately, these negative experiences led many participants to avoid mental health treatment in the future, or to refrain from disclosing their suicidal thoughts, as explained by Zoe above. However, not all negative therapeutic experiences deterred future help-seeking, as explained by Alexander, a gay, queer, cisgender man, who stated:

> I was hesitant to see any kind of therapist because my only experience with therapy had been conversion therapy...I assumed that all therapy was, was to tell me what was wrong with me and that I needed to be fixed. And, um, so to have a therapist just like, listen to me and encourage me to talk about my feelings and work through some of those feelings was very new for me, but those were some of the big first steps that it took for me to… to get past the depression.

In sum, across participants, accessing mental health services impacted their suicide trajectory, and accessing affirming services with a therapist competent in working with suicidal clients was imperative for therapy to exert a positive effect.

Coping and Emotionally Regulating: "Sometimes I Just Have to Wait It Out"

Participants reported a diverse array of coping mechanisms, which were functional in reducing suicidal ideation and halting suicidal behavior, but mixed in terms of being adaptive (e.g., acceptance) or maladaptive (i.e., harmful; self-harm; Skinner et al., 2003). Adaptive strategies discussed by participants included (a) distracting (e.g., going for a walk, completing a puzzle), (b) accepting suicidal ideation and tolerating distress from ideation, (c) delaying acting on suicidal ideation, and (d) learning when to ask for help. Regarding adaptive strategies, Alexa, an asexual, cisgender woman, explained that engaging in alternative activities as a form of distraction helped to keep suicidal thoughts from being as distressing, including "*focus[ing] on your work" and "numb[ing] yourself with TV… trying to get your mind off of it [suicidal ideation]*." For many participants, learning to accept that they may experience suicidal ideation chronically was an important step in managing their emotions. Lily, a lesbian, explained that in her view: "*Being like, 'Okay, I can, like, just think of this as a part of myself.' That's not… that's distressing, but not, like, inherently bad and there's ways to manage it.*" Kerewin, a bisexual, cisgender woman, echoed this sentiment, sharing:

> And then also finding ways to, yeah, again kind of accept that this is a part of me and that there is still, like, joy and meaning to be had alongside these experiences and that it's not, um, like they don't negate each other.

Further, Neptune who is queer, non-binary, and transmasculine explained that learning to wait out acting on suicidal ideation, coupled with learning when to reach out for help, helped them stop acting on their suicidal thoughts, stating:

> Waiting it out… can be the best strategy sometimes… having self-awareness of, like, "Okay, Like, if I stay here, like, 10 more minutes, will I end up doing something?" Or can I, like, stay here and just be okay, like, by myself." And really knowing... being able to tell, like, "Okay, I

need intervention from someone else" or, "Okay, I can do this on my own."

As mentioned previously, a minority of participants reported functional but maladaptive, strategies to stop themselves from acting on their suicidal thoughts, including self-harm and suicide planning. Engaging in self-harm was a way to temporarily relieve negative emotions, rather than escalating to suicidal behavior. This was stated clearly by Joey, who is non-binary and bisexual, who said "*In the moments that I was self-harming, I didn't want to, like, actively kill myself.*" Other participants reported that suicide planning also satisfied their urges to engage in suicidal behavior and stopped them from acting on their ideation. As M, who is non-binary and asexual, explained, researching suicide methods and the lethality of methods was a way to "*stave off actively pursuing anything*." Collectively, these coping and emotion regulation strategies identified by participants represent potential points of clinical intervention.

Connecting to Others: "Finding Someone Who Really Celebrated Me"

Across participants, connecting to others was related to reducing suicidal ideation and thwarting engaging in suicidal behavior. Participants highlighted the importance of specific aspects of these relationships including (a) a deep or strong connection, (b) shared identities, and (c) the ability to handle disclosure of suicidal ideation. For example, Kerewin, a bisexual, cisgender woman explained, "*Feeling a genuine connection to people is probably the single thing that will take me away from the thoughts and the desires the fastest*." In terms of shared identities, Alexa, an asexual, cisgender woman, elaborated on this point, sharing "*Sometimes I'll talk to my online friend. She's also, um, asexual, so she's like the only person I can really tell about my full experience with*." Finally, Neptune, who is queer, non-binary, and transmasculine, highlighted the importance of trusting social support, "*Like knowing I have people I can talk to about it and they're not gonna automatically say like, 'Oh, okay, they have to go to the hospital because they're suicidal*.'" For some participants, acceptance of their identity from others was an important part of connectedness. As Brice, a lesbian, cisgender woman, recounted after experiencing rejection from other friends and family when coming out, "*I talked to my mom about it and she was fine. She talked me out of the suicidal things, at times, and she just told me to accept myself*."

Other participants explained how connection to others halted acting on their suicidal thoughts. Bunny, a lesbian, cisgender woman, shared that, although she did not disclose her suicide plan to her friends, "*The love and care that I just, like, receive[d] from my friends. That kind of made me feel like I can just postpone the suicide and do it some other day*." John, a bisexual, cisgender man, shared a similar experience to Bunny where he had prepared to kill himself but was unexpectedly visited by a friend "*So, when my friend really came to my house, and, uh, I will say, he was to spend the weekend with me. So, that really, like, brushed off that idea*." Taken together, participants articulated how connecting to others halted the suicide cascade at multiple points and offered keen insight into the important dimensions of social connectedness.

Identifying Reasons for Living: "There's a Lot of Unfinished Business Here That I Want to Stick Around For"

As a final component of halting the suicide cascade, participants discussed the importance of reasons for living. Reasons for living include factors such as feeling a responsibility to your family or children, fearing suicide (e.g., it will be painful), fearing social disproval, believing suicide is a sin (i.e., moral objections), and surviving and coping beliefs (e.g., thinking things can improve; Linehan et al., 1983). Among our sample, participants primarily reported (a) a responsibility to family, (b) fear of suicide, and (c) surviving and coping beliefs.

Many participants explained that they felt a responsibility to their loved ones and wanted to avoid causing their friends and family any pain. As Adrian, who is queer, non-binary, and transmasculine put it, "*I think it was almost like, uh, a fear of like making everyone else really disappointed and sad*." Brooke, who is queer and agender, echoed this sentiment, explaining how they feared the impact on their parents, knowing "*how devastated they would be*." Although fear of hurting others was a commonly reported reason for living, Kerewin, a bisexual, cisgender woman, clarified that the way this message is delivered and internalized makes a difference. She explains,

> The narrative that is not helpful is "Your absence will bring pain." Like, "You will cause destruction. An action that you choose to take will hurt others, and therefore you are like bad for

considering taking that action." Um, so, like, a better narrative would be, like, "People love you, even when you feel like shit, even when you're not fun to be around," like, "People still care and want you around."

Participants recounted a variety of survival and coping beliefs, which can include lacking a desire to die, recognizing that negative feelings are temporary, and acknowledging the possibility of positive future events. Jasper, a gay, cisgender man, explained how "*being scared of pain*" deterred him from acting on his suicidal thoughts. Despite experiencing suicidal ideation, and engaging in planning, Lu, who is a demisexual, queer, bisexual, androgynous cisgender woman explained "*I had the awareness to know I didn't actually want to die, I don't think. I just didn't want to be so sad*." As a final example, Toby, an asexual, cisgender man, explained that for him "*I think there was still a part of me that hoped things could get better eventually. Like a little, little part of me, maybe. You know, I think I remember that I have a lot of things to stick around for*." Together, these participant quotes highlight that despite experiencing suicidal ideation, participants were able to combat these thoughts by identifying reasons for living.

The above four components of halting the suicide cascade were often an endpoint for participants who did not go on to engage in suicidal behaviors. However, over one-third of our participants went on to attempt suicide, from which the concept of acquiring capability for suicide as a precursor to suicide attempt is developed.

Acquiring Capability for Suicide: "Every Attempt it Gets More and More Dangerous"

Participants reported a variety of factors that led to acquiring capability for suicide, including (a) habituation to death and injury through repeated bouts of suicidal ideation and/or attempts and intrusive thoughts and images and (b) access to lethal means. For example, when recounting the impact of her multiple suicide attempts, Lola, a queer, cisgender woman, explained: "*Every time I had a breakdown and felt suicidal, it just… seemed so much heavier, and it didn't feel like... I just didn't feel like I could keep up with it.*" Although many participants recounted an anti-suicide function to self-harm, for some, engaging in self-harm contributed to acquired capability. As Alex, a queer cisgender woman explained, "*It occurred to me as I was cutting myself, I was like 'Well, I could go deeper. It might accidentally, like,*

do something. That'd be fine." Many participants, such as Zee, a non-binary lesbian, experienced intrusive images of self-harm which contributed to acquired capability; Zee explained their intrusive images take the form of "*violent images of me actually, like, self-harming.*" As an example of practical capability, when asked what precipitated his suicide attempt, Mike, a gay, transgender man shared "*I don't know what drove me to the point of actually acting on it, other than having access to pills.*" It is important to note that even in the presence of acquired capability for suicide, the presence of any of the factors that compromise halting the suicide cascade demonstrated the potential to stop suicidal behavior.

Discussion

The current study generated the SGM Suicide Risk and Protection (SuRAP) model, a population-specific ideation-to-action model of suicide for SGM adults, to further suicide prevention efforts for SGM individuals. Participants described a process where precipitating vulnerabilities and stressors led to lacking a solution, which, in turn, resulted in suicidal ideation. Participants identified protective factors which halted the progression to suicidal behavior, as well as risk factors that contributed to acquired capability for suicide and consequent suicidal behavior. Below we discuss the consistency between our findings and existing suicide and SGM health theory.

Overall, our findings were consistent with the ideation-to-action framework of suicide, with participants articulating unique factors contributing to suicidal ideation versus the progression from suicidal ideation to a suicide attempt. At the start of the suicide cascade, participants described an interplay of vulnerabilities (e.g., mental health diagnoses) and stressors (e.g., interpersonal difficulties). Participants' articulation of these risk factors is in line with stress-diathesis models of suicidal behavior (Mann et al., 2019; van Heeringen, 2012) which assert that suicidality is a result of diatheses, or risk factors (e.g., psychiatric disorders), together with stressors (e.g., psychosocial crises). These findings are also consistent with the IMV (O'Connor & Kirtley, 2018), which outlines a pre-motivational phase of background factors and triggering events that precedes the development of suicidal ideation. As part of these diatheses, or predisposing factors, some participants recounted the impact of pre-existing mental health conditions on the development of suicidal ideation; however, we found that the presence of a

mental health condition was not a sufficient cause for the development of suicidal ideation. Importantly, this is inconsistent with the dominant suicide prevention narrative that 90% of individuals who die by suicide have a diagnosable mental health condition (see Shahtahmasebi, 2013), but congruous with estimates that nearly half of all individuals who die by suicide have a diagnosed mental health condition (Centers for Disease Control and Prevention, 2018).

Beyond mental health, participants detailed a variety of stressors at the individual (e.g., financial instability), interpersonal (e.g., relational stress), and structural (e.g., poverty) levels, consistent with social-ecological frameworks of suicide (Cramer & Kapusta, 2017). Minority stress was also a salient risk factor for suicidal ideation for some participants. However, the perceived relationship of minority stress to suicide was diverse among our sample, with participants reporting minority stress as (a) a contributing factor to suicidal ideation, (b) a direct contributor to acquired capability for suicide, or (c) not a suicide risk factor. The types of minority stress indicated by participants were consistent with theories that assert individuals may experience (a) enacted stigma, or experiences of discrimination; (b) felt stigma or anticipated discrimination; and (c) internalized stigma, such as internalized homophobia (Herek, 2009). Importantly, our findings echo recent qualitative research which identified factors such as identity invalidation and structural stigma as contributing to acquired capability for suicide among SGM adults (Clark et al., 2022). Further, conversion therapy was one form of minority stress our participants reported to be most distressing and directly related to acquired capability, reiterating the well-documented deleterious relationship between conversion therapy and suicide attempt (Blosnich et al., 2020).

From these precipitating vulnerabilities and stressors, participants described lacking a solution, which was characterized by feeling hopeless and trapped. Hopelessness as a contributing factor to suicidal ideation is indicated by decades of suicide research (e.g., Beck et al., 1990) and is consistent with the 3ST theory of suicide which posits that hopelessness precipitates suicidal ideation (Klonsky & May, 2015). Participants' experiences of being trapped and seeing suicide as an escape are consistent with the IMV model of suicide (O'Connor & Kirtley, 2018) which asserts that entrapment, which includes "motivation

to escape from events or experiences" (p. 3) is a direct contributing factor to suicidal ideation and intent. Our findings build upon the extant suicide literature by highlighting the key negative cognitions that seem most salient for SGM folks from an ideation-to-action perspective.

In the presence of suicidal ideation, participants recounted four main protective factors that stopped the progression of the suicide cascade, including (a) accessing mental health services, (b) coping and emotionally regulating, (c) connecting to others, and (d) identifying reasons for living. Together, these protective factors are consistent with social-ecological perspectives which assert that individual (e.g., reasons for living, coping skills) and interpersonal (e.g., help-seeking, social connectedness) factors can reduce suicide risk (Cramer & Kapusta, 2017). In terms of accessing mental health services, many participants found help-seeking behavior such as therapy and medications to reduce suicidal ideation and thwart the development of suicidal behavior. Indeed, access to and use of mental health services is a documented protective factor for suicide (e.g., Holliday, 2018). However, some participants reported negative encounters with mental health services, particularly inpatient hospitalization. Our participants share experiences found in the existing literature which supports the efficacy of inpatient hospitalization for suicidal individuals (e.g., Ward-Ciesielski & Rizvi, 2021).

Learning how to cope and emotionally regulate was also a component of halting the suicide cascade. The strategies reported by participants overlap with common Dialectical Behavior Therapy (DBT) skills for suicide, including radical acceptance, interpersonal effectiveness (e.g., reaching out for help), and distress tolerance skills (e.g., distraction; Linehan, 2014). In addition to these adaptive coping strategies, some participants recounted engaging in self-harm to emotionally regulate and resist engaging in suicidal behavior. In terms of integration with existing theoretical models of self-harm (e.g., four function model; Nock & Prinstein, 2004), our participants reported primarily self-regulating functions to NSSI, reporting reductions in negative affect following self-harm, as well as an anti-suicide function to self-harm (Suyemoto, 1998; Kraus et al., 2020), where NSSI served as a way to avoid suicidal behavior; participants did not recount interpersonal functions of NSSI (e.g., social signaling). Taken together,

findings indicate that DBT-style coping skills and engagement in NSSI were the most relevant coping approaches for SGM adults.

Additionally, participants identified the importance of connecting to others, with particular emphasis placed on the strength of the connection, shared identities, and ability to navigate the disclosure of suicidal ideation. This is consistent with the 3ST of suicide which specifies that strong interpersonal connection can halt the progression to suicide attempt in the presence of suicidal ideation (Klonsky & May, 2015). Further, social support is associated with significantly lower odds of lifetime suicide attempt (Kleiman & Liu, 2013). The importance of connecting to other SGM individuals for social support is an important integration of SGM health theory, as SGM individuals rely most on other SGM individuals for their sources of social support (Frost et al., 2016). As well, other work has highlighted the potential for connection to the LGBTQ+ community to buffer the impact of stigma on suicide risk for SGM adults (Kaniuka et al., 2019). Participants also recounted the importance of social support in interrupting suicide attempts, underscoring the need for budding area of research on differences between interrupted and aborted suicide attempts (Burke et al., 2016; Rogers et al., 2018). When participants disclosed suicidal ideation, they also noted that the disclosure needed to be handled without "overreacting," which underscores the importance of gatekeeper training or mental health first aid which equips lay audiences with the skills to handle suicide and other mental health crises (Isaac et al., 2009; Swarbrick & Brown, 2013).

As a final component of halting the suicide cascade, participants noted several reasons for living that kept them from acting on their suicidal ideation. The main reasons for living that participants identified were responsibility to family, fear of suicide, and surviving and coping beliefs. Notably, this diverges from recent research on reason for living among trans adults, for whom only child-related concerns acted as a protective factor for suicidal behavior (Moody & Smith, 2013). This may be attributable to a few differences between samples, including younger age among our sample, as well as a lack of transgender women. Ultimately, responsibility to family, combined with the importance of social

support in halting the suicide cascade, underscore the importance of social connectedness in SGM suicide theory and practice.

The last step of our model is acquiring capability for suicide, an established contributor to suicidal behavior (e.g., Joiner, 2005; Klonsky & May, 2015; Van Orden et al., 2010). Habituation, including multiple suicide attempts, self-harm, and intrusive images, contributed to suicide risk, as did access to lethal means. These factors are also components of the volitional, or behavioral enaction phase, of the IMV which posits that factors such as past suicidal behavior, mental imagery, and access to means confer risk for suicidal behavior (O'Connor & Kirtley, 2018). Further, we noted a direct path from certain minority stress experiences (e.g., conversion therapy) to acquired capability. Even in instances where participants recounted acquired capability for suicide, the presence of protective factors halted the suicide cascade and thwarted engagement in suicidal behavior, echoing culminating evidence which suggests that the relationship between acquired capability and suicide attempt is that of a modest, moderating effect (Chu et al., 2017).

Clinical Implications

Our findings can inform clinical intervention for SGM suicide prevention. Dialectical Behavior Therapy (DBT) is an evidence-based therapeutic intervention with demonstrated effectiveness in reducing suicidal behavior, NSSI, and inpatient hospitalization (DeCou et al., 2019). Indeed, participants in our study described the benefits of a variety of DBT skills, including interpersonal effectiveness and distress tolerance. Further, the model generated in the current study echoes the flow of behavior chain analysis, a DBT strategy used to help conceptualize the factors that lead to undesired behavior (Rizvi & Ritschel, 2014). In DBT behavior chain analysis, individuals identify underlying vulnerabilities, the precipitating event(s), and thoughts, emotions, and bodily sensations that precede the problem behavior (Linehan, 2014). The parallel is clear with our model, in which precipitating vulnerabilities and stressors led to feeling trapped and hopeless, which then led to suicidal ideation, and without adequate coping skills and resources, suicide attempt. We specifically recommend the use of Affirmative DBT (Cohen et al., 2021) which can be used to address the impact of minority stress on suicidal behavior among SGM persons. As

a few examples, Affirmative DBT (a) emphasizes minority stress as a component of invalidation in one's social and structural contexts, (b) addresses shame and rejection due to one's sexual orientation or gender identity, and (c) bolsters authenticity and connection to the LGBTQ+ community. Limited evidence suggests that Affirmative DBT is effective in reducing minority stress and mental health symptoms (e.g., anxiety, depression) among sexual minority individuals (Cohen et al., 2021). Given the lack of research applying Affirmative DBT to suicide outcomes, or conducting Affirmative DBT with gender minority individuals, we recommend additional clinical intervention research in this area.

Limitations and Future Research Directions

Findings should be considered in the context of study limitations. Although the current sample was diverse with regards to sexual orientation and gender identity, no trans women were included in the study sample. Future qualitative research with trans women may reveal unique factors which contribute to the development of suicidal ideation and attempt for trans women. Additionally, data collection took place during the COVID-19 pandemic; as such, participants' experiences with mental health and suicide may have been exacerbated by the pandemic and associated mitigation strategies. Indeed, research suggests negative mental health impacts, particularly for gender minority individuals, during the pandemic (Nowaskie & Roesler, 2022). The current study highlights areas for future qualitative and quantitative research. First, the SGM SuRAP model generated here can be tested quantitatively in both community and clinically based SGM samples. Quantitative research could assess model paths outlined in the grounded theory including: (a) the relationship between identified risk factors and suicidal ideation, (b) the potential protective role of components of halting the suicide cascade, and (c) the linkage between acquiring capability for suicide and suicidal behavior. Second, participants' experiences underscored the complexity of myriad current research areas in suicide and SGM research including: (a) the relationship between NSSI and suicide and (b) the impacts of inpatient hospitalization, and (c) the relationship between minority stress and acquired capability for suicide. Consistent with recent calls in the suicide field (Hjelmeland & Knizek, 2010), we recommend continued qualitative work with SGM adults to deepen our understanding of the heterogeneity of SGM suicide experiences.

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Table 2.1

Participant Characteristics

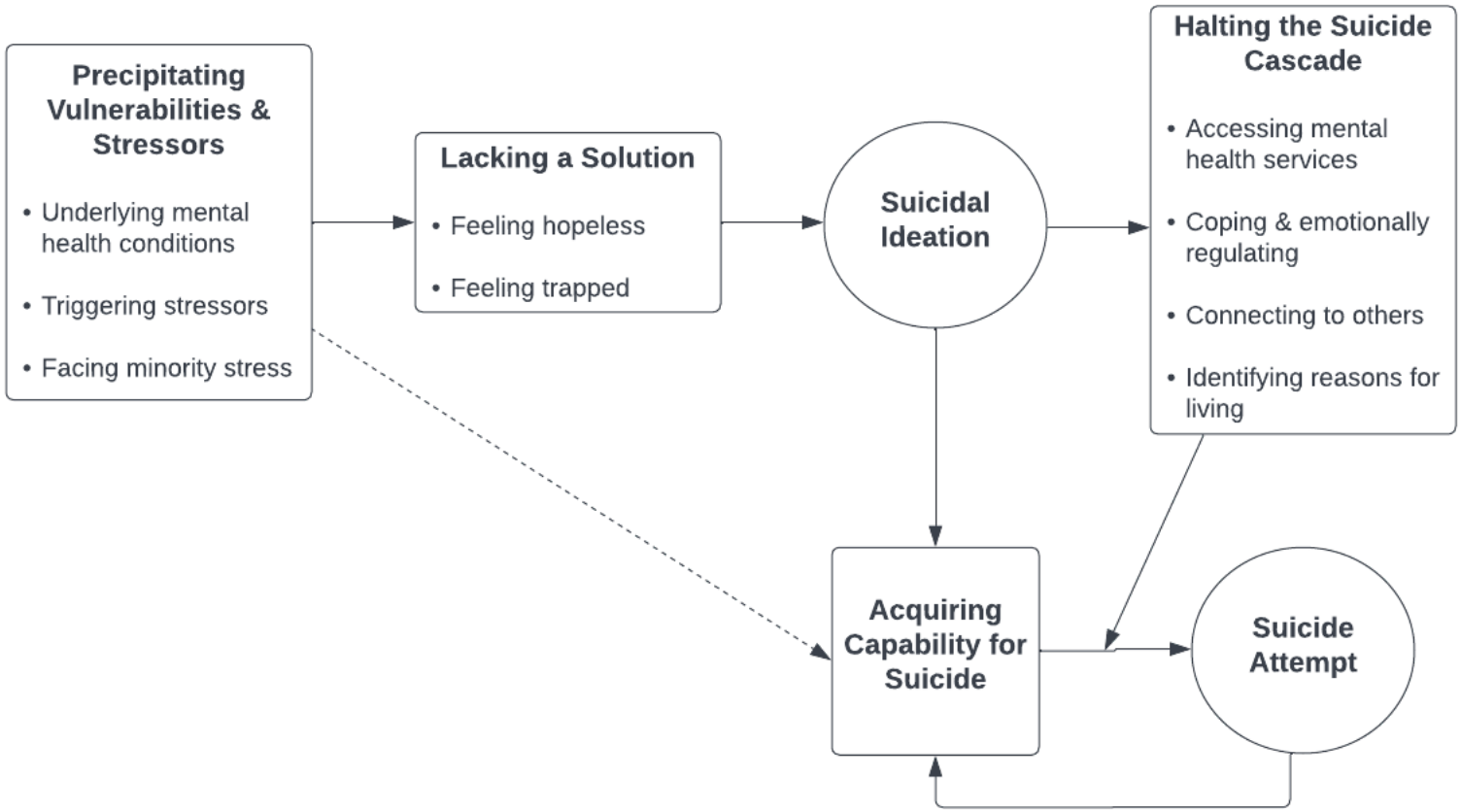
Pseudonym	Pronouns	Gender Identity	Sexual Orientation	Suicide History	Age	Census Region
Adam	He/him	Transgender man	Questioning	SI	19	Midwest
Adrian	They/them	Nonbinary transmasculine	Queer, T4T	SI	27	Northeast
Alex	She/her	Cisgender woman	Queer	SA	34	Northeast
Alexa	She/her	Cisgender Woman	Asexual	SI	32	South
Alexander	He/him	Cisgender man	Gay/Queer	SA	35	South
Billy	They/them	Agender	Asexual	SA	28	South
Bob	He/him	Cisgender man	Gay	SA	26	South
Brice	She/her	Cisgender woman	Lesbian	SA	23	Midwest
Brooke	They/them	Agender	Queer	SI	26	West
Bunny	She/her	Cisgender woman	Lesbian	SI	24	Midwest
Jasper	He/him	Cisgender man	Gay	SI	24	West
Joey	They/she	Nonbinary	Bisexual	SI	22	West
John	He/him	Cisgender man	Bisexual	SI	27	South
Kerewin	She/her	Cisgender woman	Bisexual	SI	40	Midwest
Lily	She/her	Lesbian	Lesbian	SI	21	Northeast
Lola	She/her	Cisgender woman	Queer	SA	42	South
Lu	She/they	Cisgender woman & androgynous	Demisexual, queer, & bisexual	SA	26	Midwest
M	He/they	Nonbinary	Asexual	SI	28	Northeast
Maurice	They/them	Nonbinary	Lesbian	SI	24	Northeast
Mike	He/him	Transgender man	Gay	SI	25	South
Nellie	She/her	Cisgender woman	Bisexual	SA	25	Northeast
Neptune	They/he	Nonbinary transmasculine	Queer	SA	21	South
Phoenix	They/them	Genderqueer/genderfluid/trans	Gay	SI	42	Northeast
Rainier	He/him	Cisgender man	Demisexual & pansexual	SA	33	South
Ramona	She/her	Cisgender woman	Questioning, bisexual, & asexual	SI	23	Midwest
Seetha	She/her	Cisgender woman	Queer	SI	26	South
TJ	He/him	Transmasculine	Bisexual	SI	25	South
Toby	He/they	Cisgender man	Asexual	SA	30	Northeast

Zee	They/them	Nonbinary	Lesbian	SI	24	South
Zoe	They/them	Genderqueer	Pansexual	SA	23	South

Note. Pseudonyms were chosen by the participant; Gender identity and sexual orientation labels and pronouns were provided by participants; SI = lifetime suicidal ideation; SA = lifetime suicide attempt.

Figure 2.1

SGM Suicide Risk and Protection (SuRAP) Model



Note. Rectangular boxes denote risk and protective factors; suicide outcomes (i.e., ideation and attempt) are enclosed by circles.

Appendix A: Semi-Structured Interview Guide

I. Introduction

Hi _____. I'm Andrea. I want to start out by thanking you for speaking with me today. I want our discussion today to be a conversation so I can understand things the way you see them. We will talk about your experiences, your opinions, and what you think or feel. I really want you to use your own words and describe things from your point of view. I am interested in talking to you today about your experiences with mental health as a sexual or gender minority individual. Some of the topics we discuss today may be difficult to talk about and I appreciate anything you're willing to share. If at any point you need to take a break, please let me know. You can choose not to answer any questions, and you can end the interview at any time. Do you have any questions before we get started?

II. Background Information

1. How would you describe your sexual orientation/gender identity?

    a. Probe: What does (label) mean to you?
    b. Follow-up: And what pronouns do you use?

2. What was a really important experience for you in terms of developing that identity?

III. STBs Questions

3. Let's talk about another life experience. What were your experiences with thinking about hurting yourself?

    Planned questions (if not in response to above): What are your experiences with thinking about something more extreme? What are your experiences with thinking about ending your life?

    a. What are the things that seemed to make thinking about hurting yourself happen more or get worse?

    b. What are the things that seemed to make thinking about hurting yourself happen less?

    c. In what ways did being an LGBT individual affect your experiences with thinking about hurting yourself?

    d. In what ways did the way that others treated you because of your identity affect your experiences with thinking about hurting yourself?

    e. How have your thoughts about hurting yourself changed over time?

4. Sometimes people will act on those thoughts they have about hurting or killing themselves. What are your experiences with trying to hurt yourself?

    Probe if unclear: Sometimes people try to hurt themselves with the intent to kill themselves. How would you describe your experiences with trying to hurt yourself?

a. What are the things that led you to try to hurt yourself?

b. What are the things that stopped you from trying to hurt yourself?

c. In what ways did being an LGBT individual affect trying to hurt yourself?

d. In what ways did the way that others treated you because of your identity affect your experiences with trying to hurt yourself?

e. How have your experiences with trying to hurt yourself changed over time?

IV. Resilience and self-care

5. It sounds like (insert positive factors) has really helped you. How do you care for yourself right now?

6. What is a positive relationship in your life right now?

V. Conclusion

- What else would you like to share me with today about your experiences?
- What things were you expecting me to ask today that we didn't discuss?
- That's all the questions I have for you. Do you have any questions for me?

I want to thank you again for speaking with me today. I really appreciate hearing about your experiences and the things you shared with me.

CHAPTER 3: PSYCHOMETRIC PROPERTIES OF THE BRIEF RESILIENCE SCALE AMONG ALT-SEX COMMUNITY MEMBERS

Introduction

Adults who are members of the alternative sexuality (alt-sex) community are those who engage in consensual "alternative sexual and relationship expressions" (National Coalition for Sexual Freedom [NCSF], n.d.). Alt-sex includes, but is not limited to, sexual practices such as kink and Bondage/Discipline, Dominance/Submission (BDSM), leather, fetish, and cross-dressing, as well as relationship practices, such as non-monogamy, polyamory, and swing (Taormino, 2012). While deemed "alternative" or non-traditional, alt-sex involvement is steadily growing in prevalence; for example, recent estimates indicate that over 20% of adults report engaging in consensual non-monogamy (Haupert et al., 2017), and 20% of adults report a lifetime engagement in BDSM (Brown et al., 2020). Persons who engage in alt-sex practices tend to be younger, White, and college-educated (Brown et al., 2020; Gemberling et al., 2015). Engagement in alt-sex practices may be of particular relevance for sexual and gender minority (SGM) individuals. For example, gay and bisexual men and lesbian and bisexual women are more likely to engage in BDSM than their heterosexual counterparts (Richters et al., 2008). Further, participation in kink may be part of sexual and/or gender identity development for alt-sex practitioners (Sprott & Hadcock, 2017; Vivid et al., 2020). The intersections of SGM identity and alt-sex practices have led to recent calls to explore the unique experiences of SGM alt-sex practitioners (Tatum & Niedermeyer, 2021).

Broadly, alt-sex community members face stigma due to engagement in non-traditional sexual and relationship practices; 37.5% of alt-sex community members report experiencing discrimination or violence (Wright, 2008), which is rooted in historical and contemporary pathologizing of kink by the medical and legal community (Wright, 2010). Further, sexual violence victimization outside of alt-sex settings is prevalent among alt-sex community members, with over half of alt-sex individuals reporting non-consensual touching (Bowling et al., 2020) and over 40% reporting lifetime sexual assault (Gemberling et al., 2015). Importantly, alt-sex community members who also identify as SGM

individuals report even higher frequencies of discrimination (Wright, 2008) and sexual assault (Bowling et al., 2020).

Despite facing stigma and elevated rates of sexual violence victimization, some evidence suggests that alt-sex community members do not display mental health disparities (e.g., depression, anxiety, post-traumatic stress) compared to the general adult population (Brown et al., 2020; Gemberling et al., 2015; Richters et al., 2008). Resilience may underlie the lack of mental health disparities in the face of anti-kink stigma and victimization among alt-sex practitioners. Resilience is defined as the ability to "bounce back" following an adverse event, such as a trauma exposure (Carver, 1998). Prior research indicates the benefits of resilience on mental health, including lesser depressive and anxiety symptoms in the face of stress (Gloria & Steinhardt, 2016). Although resilience may be key to psychological well-being among alt-sex individuals, there is a dearth of strengths-based research with this population. As research progresses towards more strengths-based approaches, use of validated clinical tools is needed. The current study aims to meet this need by examining the psychometric properties of the Brief Resilience Scale (BRS; Smith et al., 2008) among a sample of alt-sex community members. Validating tools, such as the BRS, among the alt-sex population will support future resilience research with alt-sex practitioners.

Measuring Resilience

The BRS (Smith et al., 2008) is a six-item measure that contains both positively (3 items) and negatively (3 items) worded statements regarding the ability to "bounce back." The BRS is one of the most widely used resilience tools in the literature (Windle et al., 2011), used to assess the impact of resilience interventions (e.g., Lohner & Aprea, 2021) and mental and physical health promotion (e.g., Gloria & Steinhardt, 2016; Scharrs et al., 2020). In the original development article, across both student and chronically ill samples, principal component analyses indicated a one-factor structure to the BRS. Scores on the BRS were positively correlated with other resilience measures, a sense of purpose in life, and optimism, and were negatively correlated with stress, anxiety, and depression (Smith et al., 2008).

Per Windle and colleagues' (2011) review of resilience measures, the BRS demonstrates strong psychometric properties compared to other measures of resilience, despite its brevity; however, they

argue that evidence of psychometric rigor remains limited, warranting further examination. For example, the extant literature is mixed in its support of a unidimensional factor as original proposed, with data drawn from diverse samples (e.g., disabled individuals, persons with severe mental illness, international samples) supporting a two-factor model (Fung, 2020; Kyriazos et al., 2018; Sánchez et al., 2021; Tansey et al., 2016). This two-factor model includes the latent factors of: (a) succumbing (i.e., difficulty overcoming adversity), onto which the three negatively worded items load and (b) resilience (i.e., ability to overcome setbacks), onto which the three positively worded items load. Yet, univariate models are supported across translated versions of the BRS, including Romanian and Spanish samples (Macovei, 2015; Rodríguez-Rey et al., 2016). The potential importance of resilience among the alt-sex community, coupled with mixed findings on the psychometric properties of the BRS among diverse populations, highlights the need for psychometric investigation of the BRS among this population.

BRS Measurement Invariance

Measurement invariance is an analytic approach building on confirmatory factor analysis, used to assess potential differences in a construct across participant subgroups (Finch, 2014). For example, prior psychometric evaluation of the BRS indicated measurement variance by gender and age among a sample of Greek adults (Kyriazos et al., 2018). In assessing the psychometric properties of the BRS among alt-sex community members, potential measurement variance of the BRS across the heterogeneous alt-sex community is needed. For example, alt-sex community members who are sexual or gender minority individuals face additional stigma because of structural and interpersonal responses to their minority sexual and/or gender identities (i.e., minority stress; Meyer, 2003), which may result in differential patterns of resilience. Indeed, research indicates that sexual minority adults demonstrate lower levels of resilience compared to heterosexual adults (Krueger & Upchurch, 2020). Further, individuals with a history of sexual violence victimization may differ in their presentation of resilience which has been described as both “suffering and surviving” (Harvey, 2007, p. 9); for instance, research indicates that up to half of survivors of sexual violence return to a normal level of psychological functioning (Domhardt et

al., 2015), with some survivors reporting post-traumatic growth, or an improvement in psychological well-being post-assault (Ulloa et al., 2016).

The Current Study

To our knowledge, no published research has examined the psychometric properties of the BRS among alt-sex individuals or SGM persons. Comparing the unidimensional and two-factor models of the BRS contributes to the extant BRS literature broadly, given mixed findings regarding model fit. As well, the current study establishes the psychometric rigor of the BRS among alt-sex practitioners, providing information on the validity of a measure for use in future strengths-based research among alt-sex practitioners. Further, no published research has examined measurement invariance on the BRS across sexual identity, gender identity, or sexual violence victimization history. Given increased rates of discrimination experienced by SGM alt-sex persons, and potential differences in resilience across those with and without victimization histories, exploring potential group differences is imperative. As such, the current study addressed the following three research questions:

RQ1: Does the one-factor or two-factor model of the BRS demonstrate better model fit among alt-sex community members?

RQ2: Are there differences in resilience by (a) sexual identity (sexual minority versus heterosexual), (b) gender identity (cisgender [i.e., gender identity/expression is consistent with sex assigned at birth] versus transgender and gender diverse [TGD]), or (c) sexual violence victimization history (yes or no)?

RQ3: Is there measurement variance by (a) sexual identity (sexual minority versus heterosexual), (b) gender identity (cisgender versus TGD), or (c) sexual violence victimization history (yes or no)?

Materials and Methods

Participants

A total of 2,753 alt-sex community members were included in the analysis. Table 3.1 contains a summary of participant demographics. Most participants reported being part of the kink/BDSM

community (*n* = 2606, 94.7%) and engaging in polyamory (*n* = 1400, 50.9%) or non-monogamy (*n* = 1440, 52.3%). Most participants were either heterosexual (*n* = 735, 26.7%), bisexual (*n* = 657, 23.9%), or pansexual (*n* = 560, 20.3%). Participants were primarily White (*n* = 2361, 86.0%) and lived within the United States (*n* = 2207, 80.4%). Most participants were either ages 25 to 35 (*n* = 840, 30.5%) or 36 to 50 (*n* = 1032, 37.5%). Approximately one-third of the sample reported a lifetime history of sexual assault (*n* = 980, 35.6%).

Procedure

The current study is part of an existing community-academic partnership between the University of North Carolina (UNC) at Charlotte and the National Coalition for Sexual Freedom (NCSF). The NCSF is a nationally leading alt-sex education and advocacy group with a membership of alt-sex practitioners located mostly within the United States. A cross-sectional survey was developed jointly between UNC Charlotte and NCSF for online distribution. The survey was distributed to 8,452 members of NCSF's email listserv. Interested participants were provided an anonymous link to complete the online survey battery via Survey Monkey. Members were provided instructions that they could share the survey opportunity with other alt-sex community members outside of the listserv. All participants were provided an online consent form and indicated consent by clicking through to the survey. The complete survey battery took approximately 20 to 30 minutes to complete. Participants were not compensated for completing the survey. Data were collected from December 2019 to April 2020. Study procedures were approved by the Institutional Review Board at UNC Charlotte (IRB #19-0494).

Measures

Brief Resilience Scale

The Brief Resilience Scale (BRS; Smith et al., 2006) is a six-item self-report questionnaire used to assess "the ability to bounce back or recover from stress" (Smith et al., 2006, pg. 194). Sample items include "I tend to bounce back quickly after hard times" and "I usually come through difficult times with little trouble." Items are rated on a 5-point Likert scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Items 2, 4, and 6 are negatively worded (e.g., "I have a hard time making it through stressful

events") and thus reverse coded for scoring. Participants' BRS scores are an average of the six items. The BRS demonstrates convergent validity with other positive psychological factors such as optimism, purpose in life, social support, active coping, and other resilience scales (i.e., Connor-Davidson Resilience Scale; Ego Resiliency Scale; Smith et al., 2006). The psychometric properties of the BRS were first tested in four samples: two student samples and two chronic health condition populations (Smith et al., 2006). Among these samples, the BRS demonstrated good internal consistency (α range = .80 to .91).

Gender Identity

Participants reported their gender identity via the question "What best describes your gender identity now?" Response options included cisgender man, cisgender woman, trans, non-binary, genderqueer, and another identity. Responses were recoded for analyses into cisgender (i.e., cisgender man or woman) and transgender and gender diverse (TGD; i.e., trans, non-binary, genderqueer, another identity).

Sexual Identity

Participants' sexual identity was assessed via the question "What best describes your sexual orientation now?" Response options included heterosexual, heteroflexible, bisexual, pansexual, gay, lesbian, and asexual. Responses were recoded for analyses into either a heterosexual or a sexual minority (i.e., all non-heterosexual identities; e.g., lesbian, gay, bisexual) category.

Sexual Assault Victimization History

Participants reported on their lifetime sexual assault victimization history via the following questions: (a) "Were you ever sexually assaulted as a minor (under 18)?" and (b) "Outside of an alt-sex context, were you ever sexually assaulted as an adult? (This includes nonconsensual kissing, vaginal, anal or oral penetration, or torture in a sexual manner.)" Participants provided a yes/no response to both questions. Participants who reported yes to either question were coded as having a sexual assault victimization history.

Data Analysis

Cases were removed via listwise deletion in instances where all BRS items were missing or key demographics were missing (n = 540; 16.40%), leaving a final analyzable sample of 2,753. Missingness for BRS items in the remaining sample ranged from 0.0 to 0.2%. Multiple imputation (Enders, 2017) was used to supplant missing values on the BRS via SPSS v. 27. BRS items two, four, and six were reverse coded prior to confirmatory factor analysis (CFA). CFA was run using AMOS v. 27 to compare a one-factor and two-factor (i.e., succumbing and resilience) model of the BRS (see Figure 3.1 and Figure 3.2).

In the two-factor model, succumbing (three items) and resilience (three items) latent variables were allowed to correlate, consistent with prior research indicating a high correlation between the two latent constructs (e.g., Fung, 2020; Tansey et al., 2016). Maximum likelihood estimation was used as the data were normally distributed. The sample size of 2,753 satisfied Root Mean Square Error of Approximation (RMSEA) statistical power requirements for single and two-factor models (Preacher & Coffman, 2006). Acceptable model fit was determined through inspection of the Comparative Fit Index (CFI), Goodness of Fit Index (GFI), RMSEA, and Root Mean Square Residual (RMR). The following guidelines for acceptable model fit were used: CFI > .90; GFI > .90, RMSEA < .08, and RMR <.08 (Hu & Bentler, 1999; Schumaker & Lomax, 2010). Model comparison was conducted via the χ^2/degrees of freedom difference test and comparison of the Akaike's Information Criterion (AIC) and Bayesian Information Criteria (BIC).

To address RQ2, independent samples t-tests and Cohen's d effect size were used to examine differences by (a) sexual identity, (b) gender identity, and (c) sexual violence victimization history on BRS scores. To address RQ3, multi-groups invariance analysis (Byrne, 2004) was conducted using AMOS v. 27 to examine overall variation in model fit between the following groups: (a) heterosexual versus sexual minority (e.g., lesbian, bisexual, pansexual), (b) cisgender vs. transgender and gender diverse (TGD), and (c) those with and without a lifetime sexual assault history. If variance in model fit was observed, as indicated by a significant χ^2/degrees of freedom difference test, each BRS item factor loading was then compared across groups. Significant variance in individual factor loadings was also determined via a χ^2/degrees of freedom difference test.

Results

One-Factor and Two-Factor Model Fit

Table 3.2 contains model fit statistics. Model 1, the BRS with a one-factor structure, indicated excellent model fit, χ^2 (9) = 94.41, CFI = .991, GFI = .988, RMSEA = .059 (90% CI = .048 to .070), SRMR = .016. Factor loading values were all significant and in expected directions (λ range: .74 to .82; all *p*s < .001). Internal consistency for the one factor was excellent (α = .90). Model 2, the BRS with a two-factor structure, also indicated excellent model fit, χ^2 (8) = 39.91, CFI = .997, GFI = .995, RMSEA = .038 (90% CI = .027 to 0.50), SRMR = .010. Factor loading values were all significant and in expected directions for resilience (λ range: .76 to .84; all *p*s <.001) and succumbing (λ range: .75 to .83; all *p*s < .001; see Table 3.3). Internal consistency for the succumbing subscale (items 2, 4, 6) was acceptable (α = .83) and similarly acceptable for the resilience subscale (items 1, 3, 5; α = .84). Given that both models exhibited excellent fit, model comparison was conducted. The χ^2 difference test of model fit indicated that the two-factor model demonstrated better fit to the data ($\chi^2[1] = 54.50$, $p < .001$).

Two-Factor Model Differences in Resilience by Sexual Identity, Gender Identity, and Victimization History

Table 3.4 contains differences in BRS resilience and reverse-scored succumbing scores by demographic and victimization history sub-groups. Sexual minority participants demonstrated significantly higher resilience and succumbing subscale scores compared to heterosexual participants, indicating significantly higher levels of resilience. Effect sizes were large. Similarly, TGD participants reported significantly higher subscale scores, with large effect sizes. Finally, those with a sexual assault history reported significantly higher resilience subscale scores but did not differ significantly from those without a lifetime sexual assault history on succumbing subscale scores.

Two-Factor Model Measurement Invariance Testing

Using the two-factor BRS model, we examined measurement invariance by sexual identity, gender identity demographic groups, and lifetime history of sexual assault. We first compared measurement invariance between heterosexual (*n* = 735, 26.70%) and sexual minority (*n* = 2018, 73.30%)

participants. Model fit for the sexual identity invariance model fit the data well, χ^2 (16) = 44.52, CFI = .997, GFI = .995, RMSEA = .025 (90% CI = .017 to .034), SRMR = .012. Model fit did not differ by sexual identity (χ^2[4] = 8.301, p = .08). Second, we examined measure variation between cisgender (n = 2390, 86.81%) and TGD (n = 363, 13.19%) participants. Model fit for the gender identity invariance model fit the data well, χ^2 (16) = 47.953, CFI = .997, GFI = .994, RMSEA = .027 (90% CI = .018 to .036), SRMR = .010. Model fit did not differ by gender identity (χ^2[4] = 3.219, p = .52).

Finally, we examined measurement invariance between those with (n = 980; 35.60%) and those without (n = 1773; 64.40%) a lifetime sexual assault history. Model fit for the sexual assault history invariance model fit the data well, χ^2 (16) = 72.362, CFI = .994, GFI = .991, RMSEA = .036 (90% CI = .028 to .044), SRMR = .013. Measurement variance was observed in factor loadings by sample, χ^2[4] = 11.923, p = .018. As such, overall measurement variance in the BRS by lifetime sexual assault history indicated the need to assess variance at the BRS item level. Item-level variance was indicated by a significant Z-score comparing each BRS item factor loading in the two lifetime sexual assault history subsamples (i.e., victim and non-victim). Two succumbing subscale items demonstrated variation by victimization subsample: (a) item four ("It is hard for me to snap back when something bad happens"), Z = 2.367, p < .05. and (b) item six ("I tend to take a long time to get over set-backs in my life"), Z = 2.709, p < .05. For item four, the factor loading was higher among those with a victimization history (λ = .85, p < .001) than among those without a victimization history (λ = .82, p < .001). For item six, the factor loading was also higher among those with a victimization history (λ = .83, p < .001) than among those without a victimization history (λ = .77, p < .001).

Discussion

The current study examined the factor structure and measurement invariance of the BRS among a sample of alt-sex community members. We first examined whether the one-factor or two-factor model of the BRS demonstrated better model fit among a sample of alt-sex community members. The two-factor model, consisting of succumbing and resilience, demonstrated significantly better fit than the unifactorial resilience model; however, both models indicated excellent fit. Findings are consistent with prior research

with other diverse samples, such as disabled individuals and persons with serious mental illness, in which the two-factor model demonstrated superior model fit (Sánchez et al., 2021; Tansey et al., 2016). Our findings indicate that the use of the BRS among alt-sex communities is psychometrically sound, supporting its use in future strengths-based research with this population. More broadly, the current study suggests that the BRS is flexible in its factor structure and that use of a total score or separate succumbing and resilience sub-scale scores are acceptable depending on the study sample, research question, and/or measurement need of the study. We recommend running CFA models for both factor structures in any study using the BRS to identify the most appropriate scoring for that sample. Importantly, use of a two-factor model is more consistent with theories of resilience in which the level of functioning following an adverse event can diverge between succumbing, or experiencing a decrease in the level of functioning, and resilience, in which one returns to a prior level of functioning (Carver, 1998). In future studies testing models of resilience, it is important to also consider which factor structure best maps onto the specific theory being applied (e.g., post-traumatic growth, radical healing; Calhoun & Tedeschi, 2006; French et al., 2020).

Further, we examined potential measurement variance in the two-factor model between sexual identity, gender identity, and sexual violence victimization history groups. We found that the BRS functions equivalently between heterosexual and sexual minority alt-sex practitioners, as well as between cisgender and TGD alt-sex practitioners. Findings diverge from prior research which indicated measurement variance in the two-factor model by age and gender (Kyriazos et al., 2018). However, this may be due to study sample differences, as prior measurement invariance research was conducted with Greek adults; further, gender groupings in this prior research were between cisgender men and women, not cisgender and TGD individuals. The current findings suggest that although SGM individuals experience additional stigma and stressors due to their identities (Meyer, 2003), there is no variation in the pattern of resilience measurement between said demographic groups when individuals are also members of the alt-sex community. Given that alt-sex community participation may be a form of gender and sexual identity exploration (Sprott & Hadcock, 2017; Vivid et al., 2020), alt-sex community

membership may buffer minority stress, and thus diminish differences in resilience typically seen among SGM persons (Krueger & Upchurch, 2020). Indeed, we found that among our sample, SGM individuals exhibited greater levels of resilience compared to their heterosexual and cisgender counterparts. Continued research exploring the intersections of sexual and/or gender identity and alt-sex community membership should continue to tease apart the relationship among these identities.

Notably, we identified measurement variation across sexual violence victimization history groups. As indicated by the differential factor loadings, alt-sex community members with a lifetime history of sexual violence victimization demonstrated a stronger relationship between succumbing items and the underlying latent variable of succumbing. These findings indicate that the process of succumbing is more salient for survivors of sexual violence victimization. Findings are consistent with prior literature which suggests that post-assault patterns may include both "suffering and surviving" (Harvey, 2007, p. 9), which translates to the two BRS factors of succumbing and resilience. These findings yield implications for both research and practice. To begin, our findings suggest measurement variance in the BRS by history variables. Coupled with prior research indicating differences by age and gender (Kyriazos et al., 2018), our findings indicate a need for continued measurement invariance testing of the BRS. Findings may also inform clinical practice, such as victims' services, by highlighting a need to center not just resilience, but also the process of succumbing, in clinical services with sexual assault survivors. For instance, when processing sexual violence with clients in either group or individual therapy (e.g., Trauma-Focused Cognitive Behavioral Therapy), incorporating the dual processes of resilience and succumbing into one's trauma narrative may yield benefits.

Limitations

Findings should be considered in the context of study limitations. To begin, participants were recruited via the NCSF listserv which resulted in a few sampling limitations. Participants represent alt-sex community members who are already connected to the community and associated organizational resources, resulting in a sample that may lack generalizability to the alt-sex community at large. Further,

use of the listserv and participants' ability to share the survey link limited the ability to calculate a survey response rate. Although use of the NCSF listserv allows access to a large sample of alt-sex community members, future research with the alt-sex community should diversify sampling and recruitment strategies to better represent the diversity of alt-sex practitioners. Additionally, our psychometric findings were limited by a lack of health and well-being variables for construct validity analyses. Future psychometric work should include measures of positive well-being (e.g., satisfaction with life, quality of life) to further assess the psychometric rigor of the BRS. Finally, data collection spanned December 2019 to April 2020. As such, findings may have been impacted by the budding COVID-19 pandemic, which created additional stress and mental health impacts globally.

Conclusion

Among a sample of alt-sex community members drawn from the NCSF, the BRS demonstrated excellent psychometric properties. A two-factor structure for the BRS was supported, representing succumbing and resilience. Measurement variance by lifetime sexual assault victimization history was identified. Findings indicate that the process of succumbing, or difficulty bouncing back after adversity, may be more salient for alt-sex individuals with a history of sexual assault victimization. The current study has implications for future resilience research and victims' services professionals.

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Table 3.1

Characteristics of Alt-Sex Community Members (N=2,753)

Variable	*n* (%)
Alt-Sex Involvement	
Kink/BDSM	
Yes	2606 (94.7%)
No	147 (5.3%)
Polyamory	
Yes	1400 (50.9%)
No	1353 (49.1%)
Non-Monogamy	
Yes	1440 (52.3%)
No	1313 (47.7%)
Swing Lifestyle	
Yes	399 (14.5%)
No	2354 (85.5%)
Leather	
Yes	587 (21.3%)
No	2166 (78.7%)
Fetish	
Yes	1243 (45.2%)
No	1510 (54.8%)
Cross-Dressing	
Yes	153 (5.6%)
No	2600 (94.4%)
Gender Identity	
Woman	1526 (55.4%)
Man	864 (31.4%)
Non-Binary	142 (5.2%)
Genderqueer	90 (3.3%)
Transgender	63 (2.3%)
Sexual Identity	
Heterosexual	735 (26.7%)
Bisexual	657 (23.9%)
Pansexual	560 (20.3%)
Heteroflexible	408 (14.8%)
Gay	81 (2.9%)
Asexual	80 (2.9%)
Lesbian	65 (2.4%)
Racial/Ethnic Identity	
White	2361 (86.0%)
Latino(a)/Hispanic	90 (3.3%)
Black/African American	63 (2.3%)
Another Identity	232 (6.4%)
Live in the United States	
Yes	2207 (80.4%)
No	539 (19.6%)
Lifetime Sexual Assault	

	Yes	980 (35.6%)
	No	1773 (64.4%)
Age		
	18-24	346 (12.5%)
	25-35	840 (30.5%)
	36-50	1032 (37.5%)
	51-69	487 (17.7%)
	70+	47 (1.7%)

Note. BDSM = Bondage/Discipline, Dominance/Submission.

Table 3.2

Model Fit Indices for Brief Resilience Scale Confirmatory Factor Analyses

Model	χ^2(df)	χ^2/df	CFI	GFI	RMSEA (90% CI)	SRMR	AIC	BIC
One-factor model	94.41(9), $p < .001$	10.49	.991	.988	.059 (.048, .070)	.016	118.41	189.46
Two-factor model	39.91(8), $p < .001$	4.99	.997	.995	.038 (.027, .050)	.010	65.91	142.88

Note. CFI = comparative fit index; GFI = Goodness of Fit Index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual; AIC = Akaike's Information Criterion; BIC = Bayesian Information Criterion; CI = confidence interval.

Table 3.3

Two-Factor BRS and Descriptive Statistics

Item	Factor	λ	*M (SD)*
BRS1	Resilience	.84	2.40 (1.02)
BRS2*	Succumbing	.75	2.71 (1.08)
BRS3	Resilience	.80	2.69 (1.04)
BRS4*	Succumbing	.83	2.66 (1.04)
BRS5	Resilience	.76	2.70 (1.00)
BRS6*	Succumbing	.79	2.62 (1.04)

Note. *Indicates items that were reverse scored.

Table 3.4

Two-Factor Model Differences in Resilience by Sexual Identity, Gender Identity, and Victimization History

	Resilience *M* (*SD*)	*t*-test	Cohen's *d*	Succumbing *M* (*SD*)	*t*-test	Cohen's *d*
Sexual Identity		**$t(2751) = -4.98$**	**.89**		**$t(2751) = -3.94$**	**.91**
Heterosexual	2.46 (0.90)			2.55 (0.91)		
LGB+	2.65 (0.88)			2.70 (0.91)		
Gender Identity		**$t(2751) = -5.67$**	**.88**		**$t(2751) = -6.00$**	**.91**
Cisgender	2.56 (0.88)			2.62 (0.90)		
TGD	2.84 (0.91)			2.93 (0.93)		
Sexual Assault History		**$t(2751) = -2.82$**	**.89**		$t(2751) = -1.91$	.91
Yes	2.66 (0.90)			2.71 (0.94)		
No	2.56 (0.88)			2.63 (0.90)		

Note. LGB+ = Lesbian, gay, bisexual; TGD = transgender and gender diverse; *M* = Mean; *SD* = Standard deviation.
Bold font denotes $p < .05$.

Figure 3.1

One-Factor Brief Resilience Scale (BRS) Confirmatory Factor Analysis Model and Parameters

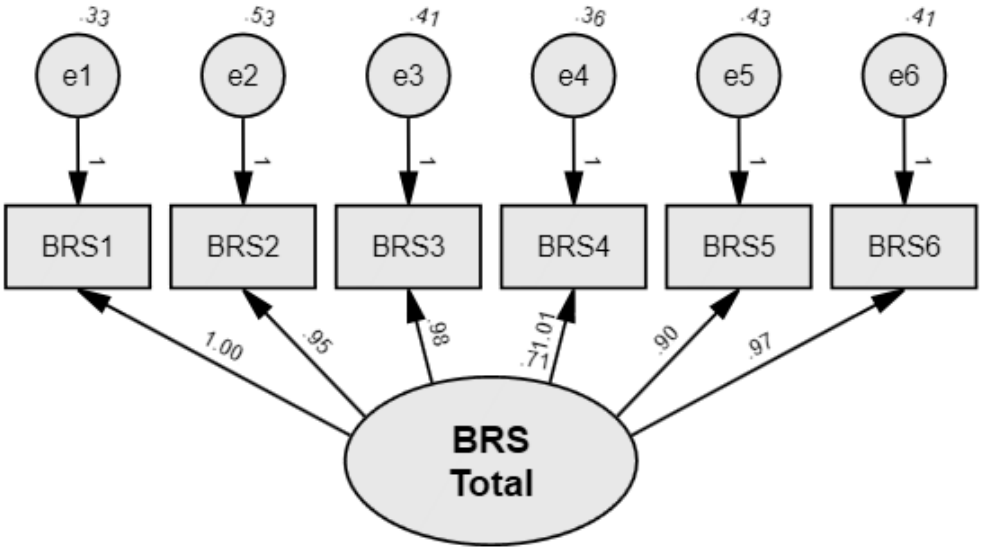
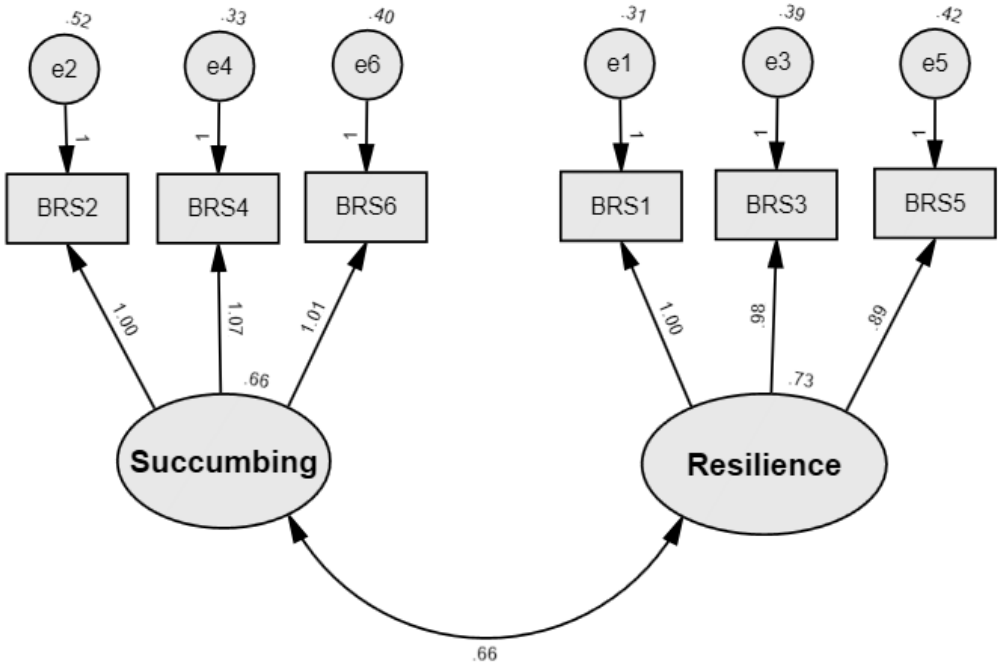


Figure 3.2

Two-Factor Brief Resilience Scale (BRS) Confirmatory Factor Analysis Model and Parameters



CHAPTER 4: SEXUAL VIOLENCE VICTIMIZATION AND MENTAL HEALTH AMONG SEXUAL MINORITY WOMEN: REPLICATING AND EXTENDING A COPING-MENTAL HEALTH FRAMEWORK

Introduction

Sexual minority women, or those who identify as lesbian, bisexual, pansexual, queer, or other identities outside of heterosexual, are at increased risk of violent victimization, including sexual violence, compared to heterosexual women (Flores et al., 2020; Walters et al., 2013). For example, 61% of bisexual women and 44% of lesbian women report a lifetime experience of intimate partner violence, including physical violence, stalking, and rape, compared to 35% of heterosexual women (Walters et al., 2013). Most (85%) lesbian and bisexual women indicate a lifetime history of sexual assault (Rothman et al., 2011) and sexual minority women experience sexual harassment at elevated rates compared to heterosexual women (Szalacha et al., 2017). Risk for sexual violence victimization is noted across the lifespan; most sexual minority women (76%) report childhood sexual assault (Rothman et al., 2011), which is approximately three times the prevalence among women broadly (approximately 25%; Pereda, 2009). Additionally, in adolescence, sexual minority girls experience greater sexual harassment and assault compared to heterosexual girls (Smith et al., 2020).

Certain sexual minority women are at even greater risk given the influence of additional marginalized identities, including plurisexual women (i.e., women with attraction to more than one gender, including bisexual, pansexual, and queer) and transgender and gender diverse (TGD) sexual minority women. For example, 46% of bisexual women report a lifetime history of rape, versus 13% of lesbian women and 17% of heterosexual women (Canan et al., 2021). There is also an elevated risk of repeat victimization among bisexual women, with bisexual women at over seven times the odds of repeat victimization and lesbian women at over three times the odds of repeat victimization compared to heterosexual women (Canan et al., 2021). Further, transgender adolescents have over twice the odds of childhood sexual abuse compared to cisgender adolescents (Thoma et al, 2021) and 37% of transgender women report a lifetime history of sexual assault (James et al., 2016). Taken together, findings suggest

that sexual minority women are a group at increased risk for sexual violence compared to heterosexual women, with additional risk conferred by multiple marginalized identities (e.g., across gender identity, sexual identity). Elevated rates of sexual violence among sexual minority women are of concern given the increased risk for psychological distress post-sexual victimization (Chen et al., 2010).

Sexual violence victimization confers risk for mental health disorders (e.g., anxiety, depression, post-traumatic stress; Chen et al., 2010), and the link between victimization and negative mental health outcomes (e.g., anxiety, depression) may be stronger among sexual minority women compared to heterosexual women, perhaps due to marginalization and lack of social connection (Szalacha et al., 2017). The sexual violence victimization-mental health link is also relevant to gender minority persons. For example, transgender women report more severe symptoms of psychological distress post-assault than cisgender women (Kussin-Shoptaw et al., 2017). Independent of sexual assault history, dual minority status confers greater risk for negative mental health outcomes; as an example, transgender sexual minority persons demonstrate greater mental distress compared to cisgender sexual minority persons (Walubita et al., 2022).

Disparities in post-assault mental health outcomes may stem, in large part, from post-assault coping behaviors. Although some research indicates minimal differences in post-assault coping across sexual orientations (Hequembourg et al., 2021), mounting evidence suggests that sexual minority women may engage in more maladaptive forms of coping post-victimization compared to heterosexual women (e.g., alcohol and drug use; Johnson, 2017) and encounter unique forms of post-assault stigma which thwart the ability to cope via social support (Dyar et al., 2021; Sigurvinsdottir & Ullman, 2016). For example, compared to heterosexual women, bisexual women report less perceived social support and more negative reactions when disclosing sexual assault (Sigurvinsdottir & Ullman, 2016) which may stem from biphobic attitudes and the hyper-sexualization of bisexual women (Dodge et al., 2016). Transgender women also report differential treatment from rape crisis centers and domestic violence shelters when seeking post-assault services, thwarting post-assault coping efforts (Seelman, 2015). Identifying the mechanisms underlying the linkage between sexual violence and post-assault mental

health outcomes provides points of clinical intervention for bolstering psychological outcomes for sexual minority women following sexual violence victimization. Thus, further examination of differences in said processes among plurisexual women and transgender sexual minority women is needed given the greater risk among these demographic sub-groups.

Post-Victimization Psychological Mediating Framework

The Psychological Mediation Framework (PMF; Hatzenbuehler, 2009) is a conceptual model which may help identify processes underlying the victimization-mental health linkage among sexual minority women. Per the PMF, stigma-related stressors, including violence, are linked to poor mental health outcomes (e.g., depression, anxiety, post-traumatic stress) through three mediating pathways: (a) coping and emotion regulation, (b) interpersonal processes, and (c) cognitive patterns. For example, survivors of sexual assault often engage in maladaptive coping and emotion regulation strategies including emotional suppression (i.e., reductions in expressions of emotionality) and rumination (i.e., repetitive negative thoughts), which are linked to negative mental health outcomes (Millon et al, 2018; Walsh et al., 2010). Survivors of sexual violence also indicate greater issues with emotional regulation than those without a victimization history (Ullman et al., 2014). Regarding interpersonal processes, lack of perceived social support mediates the relationship between sexual orientation and depressive symptoms among bisexual women (Sigurvinsdottir & Ullman, 2016), indicating the role of social support in post-assault coping. Finally, regarding cognitive patterns, survivors of sexual assault report negative self-schemas such as shame and self-blame, which are related to worse mental health (Feiring et al., 2010). Collectively, the extant sexual assault literature indicates that the psychological processes outlined by the PMF may offer a useful framework for conceptualizing post-assault mental health disparities.

Despite its utility, application of the PMF to sexual assault is limited. Kaniuka et al. (2021) found support for a serial mediation model whereby sexual violence victimization was linked to mental health outcomes, including suicidal thoughts and behaviors, via the PMF processes of cognitive reappraisal and expressive suppression. Further, the association between coping and mental health was stronger among sexual minority persons compared to heterosexual persons. However, the study only explored the PMF's

coping and emotion regulation pathway, warranting an examination of the utility of the PMF across all three mediating pathways (i.e., coping and emotion regulation, social, and cognitive). Also, Kaniuka et al. (2021) highlighted the need for future sub-group analysis, as the study examined sexual minority individuals (both men and women) as one sexual minority sub-group compared to heterosexual individuals. The authors also underscored the need to explore the impact of other marginalized identities, such as transgender and gender diverse gender identities, which is clear given increased victimization and worse mental health outcomes reported among transgender women (James et al., 2016).

The Current Study

Sexual minority women are at increased risk for sexual violence victimization (Walters et al., 2013) and associated negative mental health outcomes (Szalacha et al., 2017) compared to heterosexual women. The PMF (Hatzenbuehler, 2009) may provide a conceptual framework to guide the identification of psychological processes underlying the linkage between sexual violence and mental health, as indicated by the limited extant literature (Kaniuka et al., 2021). Yet, the application of the PMF to sexual violence is limited and fails to account for potential differences experienced by sexual and gender minority groups. For example, victimization-mental health links of plurisexual (e.g., bisexual, pansexual) and monosexual (e.g., lesbian, gay, same-gender loving) or cisgender and transgender and gender diverse (TGD) sexual minority women, may be present due to differences in rates of victimization and difficulties with coping and social support. Thus, the current study examined the relationship between sexual harassment and mental health (i.e., depression, anxiety, and post-traumatic stress) among a sample of trauma-exposed sexual minority women[1], including the potential mediating role of (a) coping and emotion regulation, (b) interpersonal factors, and (c) cognitive patterns on said linkage. Further, the current study examined potential differences in model linkages between (a) plurisexual and monosexual women and (b) TGD and cisgender sexual minority women. The following hypotheses were tested:

H1: Coping and emotion regulation, interpersonal factors, and cognitive patterns will mediate

[1] Sexual minority women were self-identified and includes transgender women and gender-diverse (e.g., non-binary) individuals who also self-identified as sexual minority women.

the linkage between sexual harassment and mental health.

H2a: These linkages will be stronger for plurisexual sexual minority women compared to monosexual sexual minority women.

H2b: These linkages will be stronger for TGD sexual minority women compared to cisgender sexual minority women.

Materials and Methods

Participants

Participants (M_{age} = 29.16, *SD* = 7.72) were 153 trauma-exposed sexual minority women. Eligibility criteria for the current study included: (a) being 18 years old and older; (b) identifying as a sexual minority woman, including transgender and gender-diverse individuals; (c) being English speaking; (d) living in the United States; and (e) reporting lifetime trauma exposure per DSM-V diagnostic criteria (i.e., life-threatening illness, physical attack, sexual assault, military combat, child abuse, accident, natural disaster; Weathers et al., 2013). Table 4.1 contains a summary of demographic statistics. With respect to gender identity and sexual identity, participants were primarily transgender and gender diverse (*n* = 91; 59.5%) and identified as either lesbian (*n* = 52; 34.0%), bisexual (*n* = 44; 28.8%), and/or queer (*n* = 37; 24.2%). Participants were diverse with respect to race/ethnicity, education, and income level. Approximately half of the participants did not disclose a history of mental health treatment (*n* = 77; 50.3%).

Procedures

The data from the current study were drawn from a larger 14-day daily diary study; however, the current study only includes data from the baseline cross-sectional survey which was administered prior to the daily diary surveys and contained a more extensive survey battery. Data were collected from April 2021 to December 2021. Participants were recruited via multiple sampling strategies including snowball sampling (i.e., asking study participants to share study recruitment materials with other sexual minority women in their social networks), social media advertisement (e.g., Facebook, Reddit), outreach on mobile applications (e.g., Scissr), and email messages to SGM and trauma-specific community listservs,

consistent with non-probability sampling procedures with sexual minority populations (Meyer & Wilson, 2009). Sampling procedures were designed (a) to maximize geographic distribution and (b) to oversample for sexual minority women of minoritized races. Specifically, we aimed to maximize the sample's geographic diversity by targeting the four most populous cities, 20 randomly selected small urban areas (i.e., cities with a population of ≥100,000), and 20 randomly selected rural counties (i.e., counties with a population of ≤ 250,000) in the U.S. Recruitment advertisements contained a flyer with a link to an online eligibility screener to be completed via Qualtrics. Participants provided online consent and then clicked through to the online survey battery. The survey took approximately 45 to 60 minutes to complete. The online survey utilized online bot detection and detection of fraudulent responses using attention checks and manipulation items. Participants were compensated for their participation via a $10.00 Amazon e-gift card. All study procedures were approved by the IRB at Syracuse University (IRB# 20-306; See Appendix B). A secondary data analysis exemption was granted by the UNC Charlotte IRB (IRB #22-0738; see Appendix B).

Measures

Demographic Questionnaire

Participants completed a demographics questionnaire reporting gender identity, sexual identity, race/ethnicity, age, income, education, and mental health treatment history ("have you ever received regular mental health or substance use services from a psychologist, psychiatrist, spiritual leader, mental health counselor, social worker, or as part of a research study?").

Independent Variable: Sexual Harassment

Past-year sexual harassment was assessed using the sexual harassment scale designed by the European Union Agency for Fundamental Rights (FRA)'s 2012 survey on violence against women (see Latcheva, 2017). The questionnaire is an 11-item measure of sexual harassment experiences, including unwanted touching, indecent exposure, and sexually suggestive or explicit comments. Participants indicated how often they experienced these forms of sexual harassment, ranging from 0 (*never*) to 3 (*6 or*

more times). A total score is generated via summation, with higher scores representing higher lifetime experiences of sexual harassment. Internal consistency in the current study was excellent (α = .90).

Latent Outcome Variable: Mental Health

Depression and anxiety symptoms were assessed using the depression and anxiety symptom subscales of the 18-item Brief Symptom Inventory (BSI; Derogatis, 2000), which assesses depression (6 items), anxiety (6 items), and somatization (6 items). Twelve items (6 items per subscale) were administered to assess past-week symptoms including "feeling hopeless about the future" (depression) and "feeling tense or keyed up" (anxiety). Responses are indicated on a 5-point Likert scale ranging from 0 (*not at all*) to 4 (*extremely*). Subscale scores for depression and anxiety symptoms are generated via summation. The BSI demonstrates acceptable psychometric properties among college student samples (depression: α = .90; anxiety: α = .86; Helminen et al., 2022). The internal consistency for both subscales was excellent in the current study (depression: α = .91; anxiety: α =. 90).

Post-traumatic stress disorder (PTSD) symptoms were assessed using the PTSD Diagnostic Scale for DSM-5 (PTSD-5; Weathers et al., 2013). The PTSD-5 contains: (a) a two-item trauma screen, (b) 20 items assessing DSM-5 PTSD symptoms (e.g., unwanted memories, nightmares), (c) two items assessing distress and interference, and (d) two items measuring symptom onset and duration. For the 20-item symptom checklist, responses are indicated on a 5-point Likert scale ranging from 0 (*not at all*) to 4 (*6 or more times a week/severe)*. Total symptom severity scores (possible range 0-80) are generated via summation of these 20 items, such that higher scores indicate greater PTSD symptom endorsement. Internal consistency of the PTSD-5 is excellent among trauma-exposed adults (α = .95; Foa et al., 2016) and was similarly excellent in the current study (α = .95).

Psychological Mediators

Emotion dysregulation was assessed using the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004). The full DERS is 36 items and includes 6 subscales: nonacceptance of emotional responses (6 items), difficulties engaging in goal-directed behavior (5 items), impulse control difficulties (6 items), lack of emotional awareness (6 items), limited access to emotion regulation strategies (8 items),

and lack of emotional clarity (5 items). The DERS has been used to examine emotion dysregulation as a mediator of minority stress among other SGM samples (e.g., Pachankis et al., 2016; Rogers et al., 2017). In the current study, only the non-acceptance of emotional responses (e.g., "When I'm upset, I become embarrassed for feeling that way") and difficulties engaging in goal-directed behavior (e.g., "When I'm upset, I have difficulty concentrating") subscales were administered. Responses are indicated on a 5-point Likert scale ranging from 1 (*almost never [0-10%]*) to 5 (*almost always [91-110%]*). Responses for each subscale are summed such that higher subscale scores indicate greater difficulties with emotion regulation. The non-acceptance of emotional responses ($\alpha = .92$) and goal-directed behavior ($\alpha = .86$) subscales indicate acceptable internal consistency among adults with affective disorders (Hallion et al., 2018). Subscales demonstrated similarly acceptable internal consistency in the current study (non-acceptance of emotional responses: $\alpha = .90$; goal-directed behavior: $\alpha = .81$).

Internalized homophobia was assessed using an adapted subscale of the Lesbian Internalized Homophobia scale (Szymanski & Chung, 2001). We used internalized homophobia as a measure of the cognitive pathway of the PMF, given that internalized homophobia is a set of self-stigmatizing negative attitudes (Meyer, 2003) that is highly correlated with other negative cognitions used in PMF research such as self-esteem (Munn & James, 2022). Participants responded to eight items assessing their negative self-schemas related to their sexual orientation (e.g., "I hate myself for not having a heterosexual or straight sexual orientation"). Responses were indicated on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Responses are summed, such that higher scores represent more negative attitudes toward one's sexual identity; the subscale demonstrates acceptable psychometric properties among lesbian women ($\alpha = .79$; Szymanski & Chung, 2001). Internal consistency in the current study was good ($\alpha = .85$).

Social support was measured using the Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988), a 12-item self-report measure of social support from friends (4 items; e.g., "I can count on my friends when things go wrong"), family (4 items; e.g., "My family is willing to help me make decisions"), and special person (4 items; e.g., " I have a special person who is a real source of

comfort to me"). The MSPSS has been used in other studies to assess the social support pathway of the PMF among SGM samples (e.g., Schwartz et al., 2016). Responses are indicated on a 7-point Likert scale ranging from 1 (*very strongly disagree*) to 7 (*very strongly agree*). A mean score is generated, with higher mean scores representing greater perceived social support; sub-scale mean scores can also be generated for friend, family, and special person support. In the current study, the subscale scores were used separately. The subscales score of the MSPSS demonstrates acceptable internal consistency (α range = .81 to .98) across sample types (e.g., pregnant women, college students; Zimet et al., 1988, 1990). The subscale scores indicated excellent internal consistency in the current study (friend: α = .93; family: α = .90; special person: α = .91).

Demographic Moderators

Gender identity was assessed via the two-step method (Reisner et al., 2014). Participants were first asked their sex assigned at birth (male, female, intersex), followed by their current gender identity ("Which of the following commonly used terms best describes how you view your gender identity?"). Participants were allowed to select all that apply. For multi-groups analysis, gender identity was collapsed dichotomously into cisgender (i.e., sex assigned at birth is consistent with current gender identity) and transgender and gender diverse (TGD; i.e., current gender identity differs from sex assigned at birth), consistent with approaches for intra-categorical intersectional analyses (Bauer & Scheim, 2019).

Sexual identity was assessed with the question "Which of the following commonly used terms best describes how you view your sexual orientation?" Response options included lesbian, gay, bisexual, pansexual, queer, sexually fluid, same-gender loving, demisexual, fluid, asexual, questioning, straight/heterosexual, and another identity. Participants were allowed to select all that apply. Straight/heterosexual individuals failed to meet inclusion criteria. For multi-groups analysis, sexual identity was dichotomized into monosexual (lesbian, gay, same-gender loving) and plurisexual (bisexual, pansexual, queer, sexually fluid, questioning, and another identity), consistent with approaches for intra-categorical intersectional analyses (Bauer & Scheim, 2019).

Data Analysis

Prior to mediation analysis, Pearson's bivariate correlations were conducted using SPSS v. 28 to assess associations between study variables (See Table 4.2). Hypothesis 1 was assessed using mediation analysis in AMOS v. 28. The following guidelines for acceptable model fit were used: CFI > .90; GFI > .90, RMSEA < .10, and RMR <.10 (Kline, 2016). Mediation analysis was conducted, consistent with Rucker et al. (2011), such that the presence of mediation was determined via 95% bias-corrected confidence intervals (BC CIs), such that a BC CI that does not contain zero is considered statistically significant. Six parallel mediators were assessed, guided by the extant literature (e.g., Rogers et al., 2017; Schwartz et al., 2016): (a) non-acceptance of emotional response and (b) goal-directed behavior (coping and emotion regulation pathway of the PMF); (c) internalized homophobia (cognitive pathway of the PMF); and social support from (d) friends, (e) family, and (f) special person (social and interpersonal pathway of the PMF). The independent variable was sexual harassment victimization and the dependent variable was a latent construct of "mental health," comprising depressive, anxiety, and PTSD symptoms. Covariates (i.e., age, race) were not entered into the model due to non-significant bivariate associations with mental health outcomes.

Prior to multi-groups analysis, *t*-test analyses with Cohen's *d* effect sizes reported were conducted to assess differences in sexual harassment, psychological mediators, and mental health by sexual identity and gender identity. Hypotheses 2a and 2b were addressed via multi-groups analysis (Byrne, 2004) in AMOS v. 28 to test which associations in the mediation model differed by (a) gender identity (i.e., cisgender versus TGD) and (b) sexual identity (i.e., monosexual versus plurisexual). The presence of moderation was determined via significant *Z*-scores of difference across model pathways.

Results

Hypothesis One: Mediation Analysis

Prior to mediation analysis, we examined bivariate correlations of study variables (Table 4.2). Correlations were in expected directions. Sexual harassment was significantly positively associated with depressive, anxiety, and post-traumatic stress symptoms, as well as non-acceptance of emotional responses and internalized homophobia; social support from a special person and friends were

significantly negatively associated with sexual harassment. All mental health variables were significantly positively associated with each other, as well as with emotion dysregulation and internalized homophobia; all mental health variables were significantly negatively associated with all forms of social support. Finally, all forms of social support were significantly positively associated with each other.

The parallel mediation model demonstrated adequate fit to the data: $\chi^2 = 60.61$ ($df = 25$, $p < .001$), CFI = 0.95, GFI = 0.93, RMSEA = .10, SRMR = .09. Consistent with expectations, depression ($\beta = .89$, $p < .001$), anxiety ($\beta = .87$, $p < .001$), and post-traumatic stress symptoms ($\beta = .77$, $p < .001$) loaded positively and significantly onto the mental health latent variable. Hypotheses were supported as three mediation pathways across constructs of the PMF (i.e., cognitive, social, and coping and emotion regulation) were significant for the linkage between sexual harassment and mental health (Table 4.3; Figure 4.1): social support from a special person (B = .10, 95% BC CI = .001 to .244), internalized homophobia (B = .10, 95% BC CI = .01 to .25), and non-acceptance of emotional responses (B = .12, 95% BC CI = .02 to .29). Sexual harassment was significantly positively associated with difficulties with acceptance of emotional responses, and, in turn, significantly positively associated with mental health symptoms. Similarly, sexual harassment was significantly positively related to internalized homophobia, and, consequently, mental health. Finally, sexual harassment was significantly negatively associated with social support from a special person, and support from a special person was significantly negatively related, in turn, to symptoms of mental health.

Hypothesis 2a and 2b: Multi-Groups Analysis

Tables 4.4 and 4.5 contain bivariate analyses for differences in sexual harassment, psychological mediators, and mental health by gender identity and sexual identity. TGD participants indicated significantly more symptoms of anxiety, depression, and PTSD, significantly greater difficulties in emotional regulation, and significantly higher internalized homophobia compared to cisgender participants; they also reported significantly less social support from family, friends, and special person than cisgender participants. However, TGD and cisgender participants did not differ in reported sexual harassment. In terms of sexual identity-related differences, monosexual participants reported significantly

higher sexual harassment and internalized homophobia compared to plurisexual participants. Monosexual participants also reported significantly fewer difficulties with goal-directed behavior and significantly higher social support from family compared to plurisexual participants.

Hypothesis 2a was not supported. Model pathways did not significantly differ between monosexual and plurisexual sexual minority women. Hypothesis 2b was partially supported. Three pathways demonstrated variation by gender identity: (a) the linkage between social support from a special person and mental health ($Z = -2.35, p < .05$), (b) the linkage between family support and mental health ($Z = 2.33, p < .05$), and (c) the linkage between difficulties in goal-directed behavior and mental health ($Z = 2.50, p < .05$). The relationship between support from a special person and mental health was not significant for cisgender participants (B = 1.71, $SE = 1.36, p = .21$), but was significant for TGD participants (B = -0.20, $SE = 0.80, p < .05$). The linkage from family support to mental health was significant and negative for cisgender participants (B = -4.71, $SE = 1.34, p < .001$) and was significant, but to a lesser degree, for TGD participants (B = -1.30, $SE = .59, p = .03$). Finally, the relation between difficulties in goal-directed behavior and mental health was not significant for cisgender participants (B = .08, $SE = .34, p = .80$), but was significant for TGD participants (B = 1.10, $SE = .23, p < .001$).

Discussion

The current study leveraged the PMF (Hatzenbuehler, 2009) to examine mechanisms underlying the link between sexual harassment and mental health among a sample of trauma-exposed sexual minority women, given increased rates of sexual violence victimization and associated negative mental health outcomes among this population (Szalacha et al., 2017; Walters et al., 2013). We found support for each pathway of the PMF, with difficulties in emotion regulation (i.e., non-acceptance of emotional response), interpersonal and social factors (i.e., social support from a special person), and cognitive patterns (i.e., internalized homophobia) all mediating the relationship between sexual harassment and mental health. Further, we identified differences in model linkages between cisgender and TGD sexual minority women; however, model linkages did not differ by sexual orientation (i.e., plurisexual versus monosexual).

Coping and Emotion Regulation Pathway

Regarding the coping and emotion regulation pathway of the PMF, non-acceptance of emotional response, but not difficulties in goal-directed behavior, mediated the relationship between sexual harassment and mental health. Thus, sexual minority women who reported a greater likelihood to respond negatively to their own distress (e.g., "When I'm upset, I become angry with myself for feeling that way") had exacerbated mental health concerns; however, difficulties with task completion and concentration in the face of negative emotions (e.g., "When I'm upset, I have difficulty concentrating") did not explain the harassment-mental health linkage. Findings are consistent with prior research which suggests that difficulties with emotion regulation contribute to mental health disparities among sexual minority individuals broadly (Hatzenbuehler et al., 2008; Rogers et al., 2017; Schwartz et al., 2016) and among sexual minority women specifically (Fitzpatrick et al., 2020). These findings are also consistent with Kaniuka et al. (2021)'s coping-mental health framework of suicide in which sexual violence was related to poorer emotion regulation, worse mental health, and in turn, suicide outcomes. We build upon the extant literature by identifying a specific component of emotion dysregulation, non-acceptance of emotional response, that contributes to mental health outcomes. This addresses a significant gap in the literature, as acceptance is not assessed in many emotion regulation models (Wojnarowska et al., 2020), despite being a point of clinical intervention in many leading therapeutic treatment modalities (e.g., distress tolerance in Dialectical Behavior Therapy and experiential acceptance in Acceptance and Commitment Therapy; Hayes et al., 1999; Linehan, 2014).

We also identified differences in the relation between difficulties in goal-directed behavior and mental health, which was not a significant pathway for cisgender participants but was a significant pathway for TGD participants. Overall, these findings are consistent with a budding literature that suggests individuals with multiple marginalized identities (e.g., men of minoritized race and sexual orientation) may exhibit greater difficulties with emotion regulation (English et al., 2018). As such, future research should attend to potential differences in emotion regulation across other demographic differences, such as race and disability, among sexual minority women, given that structural

disadvantages faced by those with multiple marginalized identities may compound difficulties with coping and necessitate unique coping strategies to manage intersectional stigma (Azhar & Gunn, 2021).

Social and Interpersonal Pathway

For the social support pathway of the PMF, we found that support from a special person, but not support from friends and family, mediated the linkage between sexual harassment and mental health. It is important to note that support from a special person can stem from a variety of sources, such as a spouse/partner, a special friend, parent, or sibling (Prezza & Pacilli, 2002). Our findings are largely consistent with the extant social support research, as adults report receiving the most support from a special person, followed by family and friends, respectively (Prezza & Pacilli, 2002). These findings diverge from research with SGM youth which tends to underscore the importance of familial support for mental health (e.g., McConnell et al., 2015). Findings are also in line with prior research which suggests an inverse relationship between mental health symptoms and social support from a special person among general population samples (Vaingankar et al., 2020). Further, notable differences in social support networks among sexual minority individuals may underscore the importance of special person social support. For example, research indicates that sexual minority persons are more likely to seek everyday social support (e.g., talking about one's problems) from persons of the same sexual orientation (Frost et al., 2016). In the current study, we used a general measure of social support, and given the importance of community connection for sexual and gender minority individuals (Bowling et al., 2020; Kaniuka et al., 2019; Snapp et al., 2015), future research should measure connection to the SGM community as a component of this mediating pathway.

We also noted two differences in the relation between social support and mental health. First, the relationship between support from a special person and mental health was not significant for cisgender participants but was significant for TGD participants. Interestingly, this diverges from prior research indicating that romantic involvement buffers mental health outcomes for cisgender sexual minority women, but not TGD sexual minority women (Whitton et al., 2020); however, this difference may be due to assessing special person support in the current study, whereas the prior literature specifically examined

romantic involvement. Second, the buffering effect of familial support was stronger for cisgender participants compared to TGD participants. This may be due to the loss of traditional family for TGD persons who, consistent with prior literature (Davey et al., 2014), reported significantly less social support from family than cisgender participants. Taken together, these findings suggest (a) the importance of TGD individuals being able to identify one consistent source of social support and (b) that different types of social support are more relevant for TGD versus cisgender sexual minority women.

Cognitive Pathway

For the cognitive pathway of the PMF, internalized homophobia significantly mediated the relationship between sexual harassment and mental health, such that sexual harassment was related to greater internalized homophobia, and, in turn, worse mental health. Our findings are consistent with recent research documenting that internalized homophobia is related to greater PTSD symptoms among sexual minority women and exacerbates the impact of victimization experiences on PTSD (Veldhuis et al., 2022). Our findings expand on the current literature by examining a minority-stress specific cognitive pattern, as the PMF cognitive pathway traditionally refers to broader cognitive factors such as self-esteem and hopelessness (Hatzenbuehler, 2009). Our findings, coupled with emerging literature, suggest the importance of minority stress-related cognitions as a component of the psychological mediating pathway; future research attending to minority stress-related cognitions, in concert with general negative schemas (e.g., hopelessness, shame) may yield needed information on the interplay and importance of different cognitive patterns. Finally, there were no significant differences determined in internalized homophobia pathways in multi-groups analysis, highlighting the salience of internalized homophobia for sexual minority women of all gender identities and sexual orientations.

Clinical Implications

Overall, our findings provide three areas for clinical intervention for trauma-exposed sexual minority women, namely (a) non-acceptance of emotional response, (b) internalized homophobia, and (c) social support from a special person. Clinical interventions such as Affirmative Dialectical Behavior Therapy (DBT; Cohen et al., 2021) may be of particular relevance. Affirmative DBT incorporates a

minority stress perspective in conjunction with central tenets of DBT, including interpersonal effectiveness and distress tolerance. Interpersonal effectiveness (i.e., building and maintaining healthy relationships) may yield social support benefits, a protective mechanism we identified in the current study. Building distress tolerance skills (e.g., acceptance, emotion regulation) would address non-acceptance of emotional response which we identified as a factor exacerbating mental health concerns. Finally, addressing shame due to one's sexual orientation (i.e., internalized homophobia) and strengthening connection to the LGBTQ+ community are central components of affirmative DBT (Cohen et al., 2021). For example, one exercise employed in affirmative DBT is a minority stress handout that discusses the social and cultural factors that lead to rejection, stigma, and shame. Given the importance of social support from a special person, which often includes a spouse or partner, addressing dyadic coping, or what couples do together to manage stress (Falconier & Kuhn, 2019), may yield benefits. Indeed, dyadic coping among women in same-sex relationships has been found to buffer the linkage between minority stress and symptoms of anxiety (Randall et al., 2017). As such, interventions strengthening dyadic coping such as the Couples Coping Enhancement Training (Bodenmann & Shantinath, 2004), or Coping-Oriented Couples Therapy (Bodenmann et al., 2008) may be of utility to bolster support.

Limitations and Future Directions

Findings should be considered in the context of study limitations. To begin, due to the cross-sectional nature of the survey, temporal sequencing cannot be evaluated. As such, future longitudinal research is needed to establish the progression from sexual harassment to mental health outcomes via the three mediating pathways of the PMF over time. Additionally, results should be viewed with caution given our small sample size, particularly when interpreting the multi-groups analysis (Thoemmes et al., 2010). Future research with larger sample sizes should be used to replicate the multi-groups analysis by sexual and gender identity, as well as intersectional moderation analyses for other marginalized identities (e.g., race, disability) as well as intersecting minority sexual and gender identities. In recruiting larger samples, diversifying sampling strategies, such as the use of probability sampling, may address sampling bias introduced by our use of convenience sampling methods (Salway et al., 2019). Further, we assessed

pathways of the PMF using the constructs of emotion regulation, social support, and internalized homophobia. Future research using different constructs for these pathways may glean insight into other mediating mechanisms (e.g., substance use, and connection to the LGBTQ+ community). For example, for the coping and emotion regulation pathway, we only assessed emotion regulation. Coping strategies, such as substance use, may be employed by sexual minority individuals to cope with minority stress (Kalb et al., 2018) as well as by women to cope with sexual violence victimization (Ullman et al., 2013) and trauma-exposed sexual minority women to cope with societal stressors (e.g., COVID-19 pandemic; Helminan et al., 2021). As such, future research examining coping, such as substance use, as part of this mediating pathway is needed. Finally, our sample was restricted to trauma-exposed sexual minority women; however, the psychological mediation framework articulated here can be investigated more broadly among other sexual and gender minority groups with victimization histories (e.g., asexual individuals, sexual minority men, and other TGD populations).

Conclusion

Sexual minority women are at increased risk of victimization and consequent negative mental health outcomes compared to heterosexual women. We used the Psychological Mediation Framework to assess the mediating role of emotion regulation, internalized homophobia, and social support on the link between sexual harassment and mental health. Non-acceptance of emotional response, internalized homophobia, and social support from a special person were significant mediators, providing points of clinical intervention. Differences in model linkages by gender identity were also identified, highlighting the need for future intersectional analysis. Taken together, findings suggest the use of treatment modalities such as Affirmative DBT and bolstering social support may be of benefit.

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Table 4.1

Demographic Characteristics of Study Participants (N=153)

Variable	*n* (%)
Gender Identity	
Cisgender Woman	62 (40.5%)
Transgender and Gender Diverse	91 (59.5%)
Sexual Orientation[+]	
Lesbian	52 (34.0%)
Bisexual	44 (28.8%)
Queer	37 (24.2%)
Pansexual	26 (17.0%)
Gay	15 (9.8%)
Same-Gender Loving	9 (5.9%)
Demisexual	3 (2.0%)
Asexual	2 (1.3%)
Fluid	1 (0.7%)
Race/Ethnicity	
Non-Hispanic White	63 (41.4%)
Non-Hispanic Black	32 (21.1%)
Hispanic and/or Latinx	39 (25.7%)
Another Racial Identity	18 (11.8%)
Education	
Some High School	12 (7.8%)
High School/GED	23 (15.0%)
Some College	37 (24.2%)
Associate's Degree	29 (19.0%)
Bachelor's Degree	36 (23.5%)
Some Graduate School	7 (4.6%)
Graduate Degree	9 (5.9%)
Income	
<$9,000	23 (15.1%)
$10,000-$24,999	48 (31.6%)
$25,000-$49,999	55 (36.2%)
$50,000-$74,999	16 (10.5%)
>$75,000	10 (6.5%)
Mental Health Treatment History	
Yes, Currently	24 (15.7%)
Yes, But Not Currently	52 (34.0%)
No	77 (50.3%)
Age*	29.16 (7.72)

Note. [+]Participants could check all that applied; *Continuous variable – *M* (*SD*) reported

Table 4.2

Bivariate Correlations among Study Variables

Variable	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. Sexual Harassment	**.38**	**.40**	**.36**	*.19*	.00	**.37**	**-.37**	**-.23**	.04
2. Depressive Symptoms	-	**.81**	**.68**	**.57**	**.48**	**.41**	**-.39**	**-.35**	**-.36**
3. Anxiety Symptoms		-	**.69**	**.45**	**.39**	**.41**	**-.39**	**-.39**	**-.32**
4. Post-Traumatic Stress Symptoms			-	**.55**	**.32**	**.35**	**-.44**	**-.29**	**-.35**
5. Non-Acceptance of Emotional Responses				-	**.52**	**.24**	-.14	*-.17*	-.13
6. Goal-Directed Behavior					-	.07	.05	-.05	-.09
7. Internalized Homophobia						-	**-.45**	**-.40**	-.13
8. Social Support – Special Person							-	**.67**	**.42**
9. Social Support – Friend								-	**.46**
10. Social Support – Family									-

Note. *Italicized font* denotes $p < .05$; **Bold font** denotes $p < .001$

Table 4.3

Direct and Indirect Associations between Sexual Harassment, Psychological Mediators, and Mental Health

Path	Estimate (*SE*)	95% BC CI
Psychological Mediator: Non-Acceptance		
c (Sexual Harassment → Mental Health)	**0.47 (0.12)**	
a (Sexual Harassment → Non-Acceptance)	**0.14 (0.06)**	
b (Non-Acceptance → Mental Health)	**0.88 (0.16)**	
ab	**0.12**	**0.02 to 0.29**
Psychological Mediator: Goal-Directed Behavior		
c (Sexual Harassment → Mental Health)	**0.47 (0.12)**	
a (Sexual Harassment → Goal-Directed Behavior)	0.00 (0.05)	
b (Goal-Directed Behavior → Mental Health)	**0.81 (0.19)**	
ab	0.00	-0.07 to 0.09
Psychological Mediator: Internalized Homophobia		
c (Sexual Harassment → Mental Health)	**0.47 (0.12)**	
a (Sexual Harassment → Internalized Homophobia)	**0.06 (0.01)**	
b (Internalized Homophobia → Mental Health)	**1.88 (0.66)**	
ab	**0.10**	**0.01 to 0.26**
Psychological Mediator: Social Support – Family		
c (Sexual Harassment → Mental Health)	**0.47 (0.12)**	
a (Sexual Harassment → Social Support – Family)	0.01 (0.02)	
b (Social Support – Family → Mental Health)	**-2.30 (0.57)**	
ab	-0.02	-0.10 to 0.04
Psychological Mediator: Social Support – Friends		
c (Sexual Harassment → Mental Health)	**0.47 (0.12)**	
a (Sexual Harassment → Social Support – Friends)	**-0.04 (0.01)**	
b (Social Support – Friends → Mental Health)	0.10 (0.71)	
ab	-0.004	-0.08 to 0.07
Psychological Mediator: Social Support – Special		
c (Sexual Harassment → Mental Health)	**0.47 (0.12)**	
a (Sexual Harassment → Social Support – Special)	**-0.07 (0.01)**	
b (Social Support – Special → Mental Health)	**-1.46 (0.73)**	
ab	**0.10**	**0.00 to 0.24**

Note: SE = standard error; *ab* = total indirect effect (sexual harassment related to mental health through psychological mediator); 95% BC CI = 95% Bias-corrected confidence interval; CI values not containing 0 are considered significant
Bold font denotes significant pathway

Table 4.4

Sexual Harassment, Psychological Mediators, and Mental Health by Gender Identity

	Overall *M* (*SD*)	Cisgender *M* (*SD*)	TGD *M* (*SD*)	*t*(df)	Cohen's *d*
Sexual Harassment	15.43 (7.73)	15.13 (7.01)	15.64 (8.22)	-0.40 (151)	.07
Anxiety Symptoms	9.08 (5.94)	6.42 (5.40)	10.89 (5.61)	**-4.91 (151)**	**.81**
Depressive Symptoms	9.09 (6.17)	6.02 (5.33)	11.18 (5.83)	**-5.56 (151)**	**.92**
PTSD Symptoms	34.62 (17.57)	27.60 (16.93)	39.41 (16.43)	**-4.31 (151)**	**.71**
Non-Acceptance of Emotional Response	16.01 (5.72)	14.23 (5.49)	17.22 (5.61)	**-3.28 (151)**	**.54**
Goal-Directed Behavior	14.96 (4.47)	13.60 (4.55)	15.89 (4.19)	**-3.21 (151)**	**.52**
Internalized Homophobia	2.77 (1.15)	2.52 (1.16)	2.94 (1.11)	**-2.22 (151)**	**.37**
Social Support – Special Person	5.19 (1.40)	5.55 (1.20)	4.95 (1.48)	**2.67 (151)**	**.45**
Social Support – Friend	4.97 (1.37)	5.31 (1.17)	4.73 (1.45)	**2.63 (151)**	**.44**
Social Support – Family	4.64 (1.50)	5.20 (1.25)	4.23 (1.53)	**4.01 (151)**	**.69**

Note. Overall (*N*=153); Cisgender (*n* = 62); TGD = transgender and gender diverse (*n* = 91)
Bold font significant differences between groups

Table 4.5

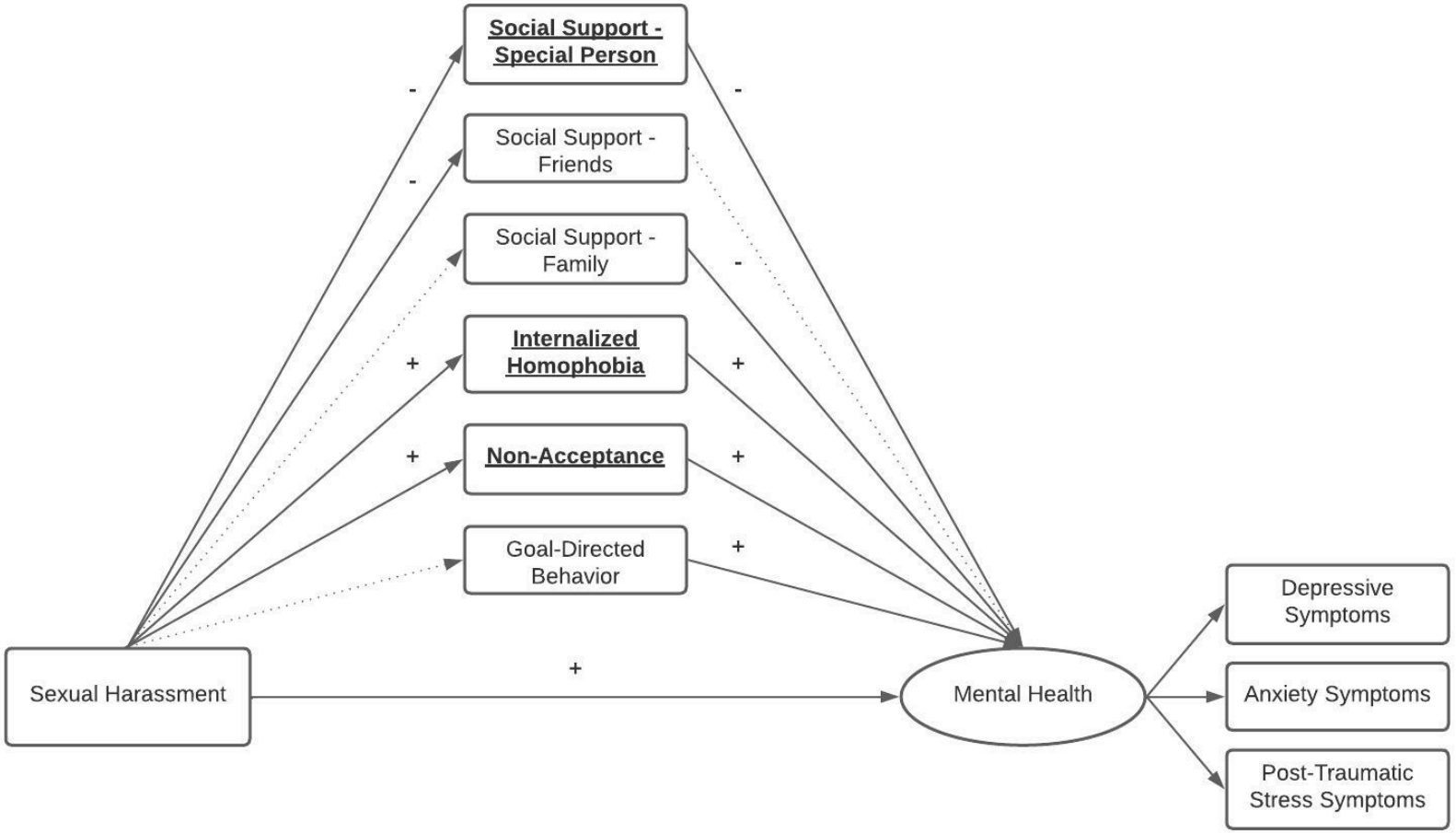
Sexual Harassment, Psychological Mediators, and Mental Health by Sexual Orientation

	Overall *M* (*SD*)	Monosexual *M* (*SD*)	Plurisexual *M* (*SD*)	*t*(df)	Cohen's *d*
Sexual Harassment	15.43 (7.73)	17.20 (6.51)	14.32 (8.25)	**2.40 (143.10)***	**.39**
Anxiety Symptoms	9.08 (5.94)	9.07 (5.64)	9.09 (6.14)	-0.02 (151)	.00
Depressive Symptoms	9.09 (6.17)	9.11 (6.24)	9.06 (6.15)	0.05 (151)	.01
PTSD Symptoms	34.62 (17.57)	33.29 (17.39)	35.46 (17.72)	-0.74 (151)	.12
Non-Acceptance of Emotional Response	16.01 (5.72)	15.97 (5.95)	16.03 (5.60)	-0.07 (151)	.01
Goal-Directed Behavior	14.96 (4.47)	14.07 (4.30)	15.52 (4.50)	**-1.98 (151)**	**.33**
Internalized Homophobia	2.77 (1.15)	3.02 (1.13)	2.61 (1.14)	**2.20 (151)**	**.36**
Social Support – Special Person	5.19 (1.40)	5.00 (1.35)	5.31 (1.42)	-1.34 (151)	.22
Social Support – Friend	4.97 (1.37)	5.06 (1.22)	4.91 (1.47)	0.66 (151)	.11
Social Support – Family	4.64 (1.50)	4.96 (1.36)	4.44 (1.55)	**2.12 (151)**	**.36**

Note. Monosexual (n = 59); Plurisexual (n = 94); *Equal variances not assumed
Bold font significant differences between groups

Figure 4.1

Psychological Mediation Framework of Sexual Harassment and Mental Health



Note. Mental health is a latent variable, denoted by an oval; Significant pathways are denoted by a solid line; Non-significant pathways are denoted by a dotted line; Positive pathways are indicated by a **+** above the model path; Negative pathways are denoted by a **-** above the model path.
Significant mediators are denoted by **bold underlined** font.

CHAPTER 5: DISCUSSION

This dissertation was motivated by the designation of sexual and gender minority (SGM) persons as a health disparity population by the National Institutes of Health (NIH, 2016). SGM persons experience health disparities compared to cisgender, heterosexual persons, including elevated rates of psychopathology and suicidal behavior, stemming from societal stigma and discrimination (IOM, 2011). Guided by the NIH Sexual and Gender Minority Research Office (SGMRO) social-ecological framework for researching health disparities among SGM persons (NIH-SGMRO, 2021a), the three studies contained in this dissertation assessed four factors identified in the NIH-SGMRO model: (a) minority stress, (b) resilience, (c) violence, and (d) intersecting identities. Study one generated an ideation-to-action model of SGM suicide: the SGM Suicide Risk and Protection (SuRAP) model. Study two validated the psychometric properties of the Brief Resilience Scale (BRS) among a sample of alt-sex practitioners. Finally, study three analyzed a Psychological Mediation Framework (PMF) of mental health outcomes among a sample of trauma-exposed sexual minority women.

Summary of Findings

Below I organize overarching findings across the three studies of this dissertation in line with the above four factors of the NIH-SGMRO health disparities model: (a) minority stress, (b) resilience, (c) violence, and (d) intersecting identities.

Minority Stress and SGM Mental Health

Minority stress (e.g., discrimination due to one's sexual and/or gender identity) is a primary factor leading to mental health disparities among SGM persons (Hoy-Ellis, 2021). Despite overwhelming evidence supporting the deleterious impact of minority stress on mental health, areas of needed further inquiry were identified in the extant literature. First, although existing research links minority stress and suicide outcomes (e.g., Livingston et al., 2015; Mereish et al., 2019), the integration of SGM health disparity models and models of suicide risk and prevention is lacking (Kaniuka & Bowling, 2021). Second, recent attention has been given to the lack of research inclusive of gender minority populations,

such as those who identify as non-binary and gender non-conforming (Valentine & Shipherd, 2018). The current dissertation contributes to the SGM minority stress literature by addressing these two gaps.

In study one, we identified the role of minority stress in suicide outcomes for SGM persons as part of the interacting vulnerabilities and stressors of SGM SuRAP model which served as the catalyst for the progression to suicidal ideation. For some participants, experiences of minority stress, such as conversion therapy, were so negatively impactful that they led directly to acquired capability for suicide. In study three, we found that internalized homophobia, or self-stigma related to one's sexual orientation, was related to negative mental health outcomes among trauma-exposed sexual minority women. Specifically, sexual harassment was related to greater internalized homophobia which, in turn, led to greater symptoms of anxiety, depression, and post-traumatic stress; this linkage did not differ between cisgender and TGD sexual minority women. Findings underscore the importance of minority stress for both suicide and mental health among SGM populations.

Measuring Resilience among SGM Populations

Although minority stress frameworks yielded needed insight into mental health disparities among the SGM population, the field of SGM health is pivoting to consider strengths-based research approaches which attend to resilience among SGM persons (e.g., Health Equity Promotion Model; Fredriksen-Goldsen et al., 2014). In conducting strengths-based research, the concept of resilience, or bouncing back after adversity, is of particular importance (Lytle et al., 2014). However, little research has psychometrically validated resilience and other positive psychology-focused measures among SGM persons. As such, study two examined the psychometric properties of the BRS among a sample of alt-sex community members. We found support for a two-factor structure to the BRS, adding to a growing literature which suggest the BRS may measure both succumbing, or a reduction in functioning following adversity, as well as resilience, or recovering from adversity (Sánchez et al., 2021; Tansey et al., 2016). There was no variation in the BRS noted by sexual orientation or gender identity, also suggesting that the BRS functions consistently across SGM demographic groups. Overall findings suggest that use of the BRS among alt-sex communities is psychometrically supported.

The Impact of Violence on SGM Mental Health

The NIH-SGMRO framework identifies violence and discrimination as a needed area of SGM research (NIH, 2016). The current dissertation addressed this research priority area in studies two and three. First, study two conducted multi-groups analysis in order to examine potential differences in the structure of the BRS by sexual violence victimization history among a sample of alt-sex practitioners. We identified measurement variance by sexual violence victimization history, such that the process of succumbing was stronger for alt-sex individuals with a lifetime sexual assault history compared to those without a lifetime sexual assault history. Second, we examined a PMF among a sample of trauma-exposed sexual minority women in order to provide insight into the ways in which trauma and discrimination may impact social support, coping, and minority stress processes, and, ultimately, mental health. We found that social support from a special person (e.g., spouse/partner), internalized homophobia, and non-acceptance of emotional response mediated the association between sexual harassment and mental health. Taken together, these findings illuminate the resilience and succumbing process among trauma-exposed persons of the alternative sexuality community and/or SGM individuals.

Intersectionality: Considering Multiple Marginalized Identities

An additional area of inquiry of the current dissertation was the impact of intersecting identities, particularly multiple marginalized identities, on mental health and suicide, given that intersectional oppression results in worse mental health outcomes for SGM persons of multiple marginalized identities (e.g., racial/ethnic minority SGM persons; Balsam et al., 2011). In studies two and three, we conducted multi-groups analysis for our BRS and PMF models to investigate the impact of sexual orientation and gender identity on model linkages. We did not identify differences in BRS model structure by sexual and gender identity (study two), nor differences in the PMF harassment-mental health model by sexual orientation (study three). However, in study three, we noted differences in the PMF by gender identity, suggesting that social support from a special person and difficulties in goal-directed behavior may be salient psychological mediating pathways for TGD sexual minority women, but not cisgender sexual minority women. Overall, these findings underscore the importance of treating the SGM population as

heterogeneous and attending to differences in identity among the SGM population which have the potential to differentially impact mental health.

Implications for Research and Practice

The current dissertation provides a pathway for future areas of research and practice. To begin, the grounded theory SGM SuRAP model generated in study one can be quantitatively examined. Given that our study did not include transgender women, particular attention should be given to validating the proposed model among this population. Study two contributed to a growing movement towards strengths-based research with the SGM population. We recommend continued psychometric examination of the BRS among SGM populations, as the current study was focused on alt-sex practitioners, many of whom did identify as SGM. Additionally, the PMF examined in study three focused specifically on the relationship between sexual harassment and mental health symptoms. Future research should extend the PMF to other forms of victimization (e.g., hate crimes), and other mental health outcomes (e.g., suicide; see Kaniuka et al., 2020). Finally, we recommend multi-groups analysis, with sufficient sample sizes to adequately power analyses, as a component of SGM research to provide insight into intersectional experiences of the SGM community.

Findings may also inform clinical interventions for mental health promotion and suicide prevention among SGM persons. Specifically, interventions which address minority stress and SGM-identity, such as Affirmative Dialectical Behavior Therapy (DBT) may be of particular utility. Affirmative DBT incorporates traditional components of DBT, such as interpersonal effectiveness and distress tolerance, with SGM-specific interventions addressing distal (e.g., discrimination) and proximal (e.g., internalized homophobia) minority stress. However, research evaluating the efficacy of Affirmative DBT is limited to a small pilot of sexual minority individuals. As such, we recommend further evaluation research of Affirmative DBT, which may include pre- and post-assessment of factors identified in the current dissertation, such as suicidal thoughts and behaviors, resilience, psychological mediating pathways (e.g., social support, internalized homophobia, emotion regulation), and mental health symptoms (e.g., depression, anxiety, post-traumatic stress).

Limitations

Dissertation findings should be considered in the context of study limitations, including issues of sample size and sampling strategies, leading to issues of generalizability. For example, study one generated an SGM model of suicide risk and prevention; however, despite efforts to recruit persons from a variety of sexual orientations and gender identities, no transgender women took part in the study. As such, the transferability of findings to transgender women is unclear. Additionally, all studies relied on online convenience sampling strategies, and often utilized community organizations and listservs to reach participants. As a result, study participants may have differed from the general SGM population in terms of access to resources, outness with SGM identity, and other demographic characteristics (e.g., education, socio-economic status; Krueger et al., 2020; Salway et al., 2019). Finally, data collection for all studies occurred during the COVID-19 pandemic, which poses a threat to internal validity as a history effect. Collectively, study limitations inform future research design considerations, including larger sample sizes, probability sampling, and controlling for COVID-19 impacts.

Conclusion

The current dissertation research focused on risk factors (i.e., minority stress, violence, multiple marginalization) and protective factors (i.e., coping mechanisms, resilience) identified within the NIH-SGMRO framework (NIH, 2016) as they relate to mental health and suicide among SGM adults. Findings from the current study contributed to the extant literature by (a) generating the SGM SuRAP model, (b) validating the BRS for use in alt-sex populations, and (c) identifying points of clinical intervention for mental health promotion among trauma-exposed sexual minority women. Through my dissertation research, I have laid the foundation for a research program which utilizes mixed methods approaches to culturally adapt mental health promotion and suicide prevention theory and intervention for the SGM population.

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APPENDIX B: ETHICAL APPROVAL LETTERS

Study 1

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(704)-687-1871
Web site: http://research.uncc.edu/
Federalwide Assurance (FWA) #00000649

To: Andrea Kaniuka
Graduate School

From: IRB

Approval Date: 3/21/2021
Expiration Date of Approval: No Date of Expiration - No End Date
RE: Notice of IRB Approval by Expedited Review (under 45 CFR 46.110)
Submission Type: Initial
Expedited Category: 6.Voice/image research recordings,7.Surveys/interviews/focus groups
Study #: 21-0284

Study Title: Suicidal Behavior among LGBT Individuals: Exploring the Role of Minority Stress Models within a Suicide Ideation-to-Action Framework

This submission has been approved by the IRB. This approval has no end date. It has been determined that the risk involved in this research is no more than minimal.

Important Information:

1. Human Subjects Research (HSR) activities that can be conducted virtually/remotely should be conducted virtually/remotely. Protocol Modifications are required to adjust data collection procedures to remote data collection (e.g., phone, online or virtual).
2. The operational status of the research/study location where HSR activities will occur will guide whether the activities should occur.
3. Off-campus HSR activities may occur if the organization, institution, agency, business, etc. is operational and is willing to support the researcher to conduct the research.
    - Researchers will be representing the University and therefore, regardless of the organization's standards, researchers must adhere to University, local, and state requirements regarding the use of face coverings, physical distancing standards, group size limitations, etc.
4. Conducting HSR activities on-campus (Main campus, Center City campus, and other locations that may be extensions of the University) is subject to the operational status of the University.
    - Researchers must adhere to all University, local, and state public health and safety requirements including wearing face coverings whenever indoors and maintaining physical distancing.
    - Researchers must adhere to the Niner Nation Cares requirements including the 6 Ws (Wash, Wear, Wait, Wipe, Watch, and Wave) and limitations on the size of gatherings.
5. Should the operational status of off-campus study locations change, the University's operational status change, Mecklenburg County and/or the state of North Carolina impose higher restrictions (stay-at-home orders), researchers must comply with these requirements and therefore HSR activities, regardless of whether the activities are off-campus or on-campus may need to halt.

Study Description:
Lesbian, gay, bisexual, and transgender (LGBT) adults are at increased risk for suicide. Due to this increased risk, identifying factors unique to LGBT adults that contribute to suicidal ideation and suicide attempt is needed. Through interviews with 30 LGBT adults, we aim to identify population-specific risk and protective factors for suicidal ideation and attempt. From these interviews, the current study will develop an LGBT specific model of suicide that can be used to inform prevention program and clinical intervention development.

Carefully review the Investigator Responsibilities listed below.

Investigator's Responsibilities:

It is the responsibility of the Principal Investigator to comply with the following:

Study 2

OFFICE OF RESEARCH COMPLIANCE
9201 University City Boulevard
319 Cameron Hall
Charlotte NC 28223-0001
(704)-687-1871
Web site: http://research.uncc.edu/
Federalwide Assurance (FWA) #00000649

To: Jessamyn Bowling
Public Health Sciences

From: IRB

Approval Date: 1/06/2020
Expiration Date of Approval: No Date of Expiration - No End Date
RE: Notice of IRB Approval by Expedited Review (under 45 CFR 46.110)
Submission Type: Initial
Expedited Category: 7.Surveys/interviews/focus groups
Study #: 19-0494

Study Title: Experiences with consent among kink practitioners

This submission has been approved by the IRB. This approval has no end date. It has been determined that the risk involved in this research is no more than minimal.

Carefully review the Investigator Responsibilities listed below.

Study Description:

This project will explore consent conversations and non-consensual experiences among kink practitioners through the use of an online anonymous survey. Kink practitioners are stigmatized and often overlap in their communities. Literature related to the experiences of consent negotiation among this population is primarily qualitative and uses small sample sizes. The survey will take approximately 20 minutes.

Investigator's Responsibilities:

It is the responsibility of the Principal Investigator to comply with the following:

1. Modifications **must** be submitted for review and approval before implementing the modification. This includes changes to study procedures, study materials, personnel, etc.
2. Data security procedures must follow procedures as approved in the protocol and in accordance with ITS Guidelines for Data Handling.
3. Promptly notify the IRB (uncc-irb@uncc.edu) of any adverse events or unanticipated risks to participants or others.
4. Complete the Closure eform via IRBIS once the study is complete.
5. Be aware that this study is now included in the Office of Research Compliance (ORC) Post-Approval Monitoring program and may be selected for post-review monitoring at some point in the future.
6. Reply to the Office of Research Compliance (ORC) post-review monitoring and administrative check-ins that will be conducted periodically to update ORC as to the status of the study.
7. Three years (3) following this approval, ORC will request a study status update (active/not active).

Your approved consent forms and other documents are available online at http://uncc.myresearchonline.org/irb/index.cfm?event=home.dashboard.irbStudyManagement&irb_id=19-0494.

Please be aware that additional approvals may still be required from other relevant authorities or "gatekeepers" (e.g., school principals, facility directors, custodians of records).

This study was reviewed in accordance with federal regulations governing human subjects research, including those found at 45 CFR 46 (Common Rule) and 21 CFR 50 & 56 (FDA), where applicable.

Study 3

SYRACUSE UNIVERSITY

INSTITUTIONAL REVIEW BOARD
MEMORANDUM

TO: Jillian Scheer
DATE: December 14, 2020
SUBJECT: **Expedited Protocol Review - Approval of Human Participants**
IRB #: 20-306
TITLE: *Project QueST: Queer Survivors of Trauma*

The above referenced protocol was reviewed by the Syracuse University Institutional Review Board for the Protection of Human Subjects (IRB) and has been given **expedited approval.** The protocol has been determined to be of no more than minimal risk and has been evaluated for the following:

1. the rights and welfare of the individual(s) under investigation;
2. appropriate methods to secure informed consent; and
3. risks and potential benefits of the investigation.

This protocol is approved as of **December 14, 2020.** An Expedited Status Report will be requested annually, until you request your study be closed.

It is important to note that federal regulations require that each participant indicate their willingness to participate through the informed consent process and be provided with a copy of the consent form. Regulations require that you keep a copy of this document for a minimum of three years after your study is closed.

Your consent form has been date stamped with the approval date. If at any time during the course of your research, a revised consent document is submitted to the IRB via an amendment, it will be stamped with the date the amendment is approved.

Formal amendment requests are required for any changes to the initially approved protocol. It is important to note that changes cannot be initiated **prior** to IRB review and approval; except when such changes are essential to eliminate apparent immediate harm to the participants. In this instance, changes must be reported to the IRB within five days. All protocol changes must be submitted on an amendment request form available on the IRB web site at: Amendment-Request-Form.doc.

Any unanticipated problems involving risks to subjects or others must be reported to the IRB within 10 working days of occurrence on the Report of Unanticipated Problems form located on the IRB website at: Report-of-Unanticipated-Problems.doc.

Thank you for your cooperation in our shared efforts to assure that the rights and welfare of people participating in research are protected.

Katherine McDonald
IRB Chair

DEPT: Psychology, 414 Huntington Hall

CC: Skyler Jackson, Cal Brisbin, Kobe Pereira, Emily Helminen, TJ Shaw

Study 3

CHARLOTTE
RESEARCH AND ECONOMIC DEVELOPMENT

To:	Robert Cramer Public Health Sciences
From:	Office of Research Protections and Integrity
Approval Date:	27-Jan-2022
RE:	Notice of Approval of Exemption
Exemption Category:	4
Study #:	IRB-22-0738
Study Title:	A Secondary Analysis of the Queer Survivors of Trauma (QueST) Study

This submission has been reviewed by the Office of Research Protections and Integrity (ORPI) and was determined to meet the Exempt category cited above under 45 CFR 46.104(d). This determination has no expiration or end date and is not subject to an annual continuing review. However, you are required to obtain IRB approval for all changes to any aspect of this study before they can be implemented.

Important Information:

1. The University requires face coverings (masks) in all indoor spaces on campus, regardless of vaccination status.
2. The updates to safety mandates apply to North Carolina only. Researchers conducting HSR activities in locations outside of North Carolina must continue to adhere to local and state requirements where the research is being conducted.
3. Face coverings (masks) are still required in healthcare settings, public transportation, and daycares as well as many North Carolina schools. Researchers conducting HSR activities in these settings must continue to adhere to face coving requirements.
4. In addition, some North Carolina counties have additional requirements that researchers must follow.
5. Organizations, institutions, agencies, businesses, etc. may have further site-specific requirements such as continuing to have a mask requirement, or limiting access, and/or physical distancing. Researchers must adhere to all requirements mandated by the study site.

Your approved consent forms (if applicable) and other documents are available online at Submission Page.

Investigator's Responsibilities: