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Family rejection predicting suicidal thoughts and behaviors among sexual minority males: Indirect effects through internalized homophobia and the interpersonal theory of suicide constructs

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FAMILY REJECTION PREDICTING SUICIDAL THOUGHTS AND BEHAVIORS AMONG SEXUAL MINORITY MALES: INDIRECT EFFECTS THROUGH INTERNALIZED HOMOPHOBIA AND THE INTERPERSONAL THEORY OF SUICIDE CONSTRUCTS

by

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ABSTRACT

Past research has identified sexual minority males as presenting with more suicidal thoughts and behaviors in comparison to the general population, possibly due to additional stressors (e.g., family rejection, internalized homophobia) encountered throughout their lives that are specific to minority identities (Meyer, 2003). Extant literature has also examined constructs from the Interpersonal Theory of Suicide (ITS; Joiner, 2005; Van Orden et al., 2008) with mixed support for each (e.g., perceived burdensomeness, thwarted belongingness, capability) predicting suicidal thoughts and behaviors among sexual minority males. The current study, therefore, sought to further existing literature by examining indirect effects of family rejection on suicidal ideation, number of past suicide attempts, and likelihood of future suicide, respectively, through internalized homophobia and the ITS constructs. Three hundred eleven cis-gender, sexual minority male community members were recruited from online social media boards and Amazon's mTurk and completed a battery of questionnaires for the current study. Overall, as predicted, family rejection had a significant indirect effect on suicidal ideation through internalized homophobia and ITS constructs. Hypotheses for models predicting number of past suicide attempts and likelihood of future suicide attempts were partially supported. Capability for suicide largely exhibited unexpected relationships within our models. Possible explanations are discussed for these outcomes, as well as implications and future directions regarding the assessment and treatment of factors that predict suicidal thoughts and behaviors among sexual minority males.

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DEDICATION

I would like to dedicate this dissertation to my family and friends for their enduring support throughout my educational career. Specifically, to my mother, you have been a constant source of support through a particularly formative period of my life. You have often been my greatest advocate, kept me from losing hope in myself, and have provided me with love and support that only a mother could provide. To my father, regardless of the obstacles that have arisen, you have always encouraged me to follow my dreams and trust in myself. Without the both of you, I would have never made it as far as I have in my academic career nor accomplished as much in my life.

Finally, I dedicate this dissertation to my grandmother, Harlean Millikan. I have grown and changed so much since the day you left this world. While you may not be here to celebrate this accomplishment with me, and while it feels like a piece of my heart went with you, you have always been and will continue to be a source of support, love, and inspiration throughout all the days of my life.

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CHAPTER I - INTRODUCTION

Sexual minority people (e.g., lesbian, gay, bisexual, transgender, queer; LGBTQ) are at an increased risk for suicidal thoughts and behaviors, with this group being three times more likely to experience suicidal ideation and five times more likely to have attempted suicide compared to heterosexuals (CDC, 2016). Within this population, sexual minority men are at particular risk for suicidal thoughts and behaviors, as meta-analytic data suggests gay and bisexual men are at greater risk for suicide attempts in comparison to sexual minority females (Lee et al., 2016). Indeed, Hottes and colleagues (2015) used statistical data and comparative analyses to determine that suicide surpasses the human immunodeficiency virus (HIV) as the leading cause of death among gay and bisexual men. This discrepancy is further evidenced in the general population of the U.S. where men were 3.63 times more likely to die by suicide than females (CDC, 2021). As such, the need for additional research into factors that influence suicidal thoughts and behaviors among gay and bisexual men is merited to identify potential areas for intervention to address this significant discrepancy.

Family rejection (e.g., Ryan et al., 2009) and internalized homophobia (i.e., self-hatred related to sexual orientation; Cramer et al., 2015; McLaren, 2016) both significantly influence negative psychological outcomes and suicidal thoughts and behaviors among gay and bisexual men and have been previously shown to be interrelated (e.g., Puckett et al., 2015). The current study sought to explore family rejection and internalized homophobia within the framework of the interpersonal theory of suicide (ITS; Joiner, 2005; Van Orden et al., 2010), which posits that a person will not exhibit suicidal behavior without the concurrent desire and ability to do so, among gay

and bisexual men. Prior work examining the ITS in sexual minority groups has shown mixed results (e.g., Kim & Yang, 2015; Ploderl et al., 2014; Woodward et al., 2014) and has often combined sexual minority people into one homogeneous group; therefore, additional research is needed to delineate the concurrent influence of ITS constructs, family rejection, and internalized homophobia among sexual minority men, specifically.

Mental health among sexual minority people

Persons who identify as sexual minorities are more than twice as likely to have psychological and substance use difficulties than heterosexuals (Medley et al., 2016) and are prone to face a double stigma related to their sexual minority identity and mental health challenges (National Alliance on Mental Illness, 2019). Sexual minority people are at a greater risk for developing a wide range of mental disorders (e.g., anxiety, depression, personality disorders, Bolton & Sareen, 2011; Kerridge et al., 2017; Wang et al., 2014), with gay men being at risk for increased suicidal ideation, more psychological distress, greater neuroticism, and poorer functioning (Wang et al., 2014). Suicide attempts are particularly high among gay and bisexual men, with bisexual men exhibiting three times the risk in comparison to heterosexuals (Bolton & Sareen, 2011). This heightened level of suicide attempts among male sexual minority people (Bolton & Sareen, 2011) underscores the importance of examining suicidal thoughts and behaviors among specific sexual minority people (i.e., gay and bisexual men) in order to delineate the unique relationships among these specific groups. As such, researchers have focused on contributing factors to suicidal thoughts and behaviors among gay and bisexual men.

Unique experiences and factors have been examined regarding if and how they may influence suicidal thoughts and behaviors among gay and bisexual men. Extant

literature indicates that suicide attempts are positively related to disclosure of sexual orientation resulting in lost social support, low self-esteem, the presence of other mental health disorders, and prior victimization, with loss of social support and current suicidal ideation holding the strongest influence (Hershberger et al., 1997). Shame and rejection sensitivity serve as risk factors for the development of suicidal ideation among gay and bisexual men (Mereish et al., 2018). Sexual minority males are at particular risk for victimization outside of their family unit, with victimization at school being a marked predictor of suicidal ideation and attempts (van Bergen et al., 2013). In a psychological autopsy study that examined LGBT community members (74% male) who died by suicide (Skerret et al., 2016), interviewees disclosed that those who had died by suicide were more likely to have been victims of sexual assault, domestic violence, and/or violence that merited medical attention. Additionally, LGBT individuals who died by suicide were often prescribed psychotropic medication, were seeing a psychological professional, had been admitted to a mental health facility, were unable to work due to poor mental health, had a previous suicide attempt, and had been diagnosed with a mental disorder (e.g., major depression, generalized anxiety, posttraumatic stress, substance use; Skerret et al., 2016). Clearly, members of sexual minority groups, and specifically gay and bisexual men, are uniquely prone to mental health difficulties and suicidal thoughts and behaviors. The current study aims to expand upon these associations by examining the impact of parental rejection on suicidal thoughts and behaviors among gay and bisexual men.

Parental rejection and suicide

Humans have an inherent need to belong and when that need is threatened through rejection or social exclusion it can lead to a host of negative outcomes (e.g., suicide, Ploderl et al., 2014; depression, Puckett et al., 2015). At face value, it is conceivable that rejection or exclusion by a primary caregiver or parent could predict significant negative outcomes. Indeed, even a minimum of physical acceptance by family (i.e., allowing sexual minority individual to continue to reside in their home) serves to mitigate suicidal thoughts and behaviors among gay men (Fenaughty & Harre, 2003). Rejection, however, is a commonplace experience among sexual minority people when their parents or primary caregivers are not accepting of their sexual orientation (e.g., Ryan et al., 2009).

Rejection by parents is predictive of suicidal ideation (Ryan et al., 2010) and suicide attempts among gay and bisexual men (van Bergen et al., 2013), with those experiencing this rejection being approximately 8.4 times more likely to have attempted suicide (Ryan et al., 2009). Posthumous interviews have indicated that at least one common factor among sexual minority people who died by suicide was a less accepting mother and father (Skerret et al., 2016). Furthering this negative outcome, gay men and lesbians who have attempted suicide due to negative "coming out" experiences are perceived as emotionally maladjusted and disordered (Cato & Canetto, 2003).

Prior research (e.g., Ryan et al., 2010) has focused on parents specifically when examining the association between rejection and suicidal thoughts and behaviors among gay and bisexual men. The current study included individuals identified as "primary caregivers" to account for situations such as adoption or being raised by a close relative.

The current study also aimed to not only further establish the direct relationships between primary caregiver rejection and suicidal thoughts and behaviors among gay and bisexual men, but also consider specific pathways that might help explain this association. This study considered two such specific pathways: ITS constructs (i.e., perceived burdensomeness, thwarted belongingness, capability) and internalized homophobia.

The Interpersonal Theory of Suicide

Clearly, a wealth of evidence indicates the unique psychological challenges experienced by sexual minority people. Research examining suicidal thoughts and behaviors within the sexual minority community has grown over the past years, particularly in regard to the ITS (Joiner, 2005; Van Orden et al., 2010). The ITS argues that, for a person to engage in suicidal behavior, they must concurrently possess the desire and capability to do so. Suicidal desire is captured by the cognitive processes of perceived burdensomeness and thwarted belongingness. Perceived burdensomeness is operationalized as the belief a person holds that they are flawed and a burden on others, leading to self-hatred. Thwarted belongingness is related to social isolation, and negative consequences of thwarted belongingness arise from the perception that one does not belong. Further, these two components must be perceived as unchangeable (i.e., hopelessness; Van Orden et al., 2008). Capability for suicide is theorized to arise from acquired (e.g., habituation to pain), dispositional (e.g., genetics), and/or practical (e.g., knowledge of lethality) factors (Klonsky & May, 2015). For example, acquired capability is associated with mental and physical processes an individual engages in to develop the distress tolerance and pain tolerance needed to die by suicide, with greater engagement in painful

and provocative events relating to more suicide attempts (Joiner, 2005; Van Orden et al., 2010; Van Orden et al., 2008).

Within the framework of the ITS, perceived burdensomeness predicts suicide proneness (i.e., factors including risk taking behavior, low safety behavior, hopelessness, suicidal ideation; Lewinsohn et al., 1995) among sexual minority people (e.g., Cramer et al., 2015). Perceived burdensomeness is also a significant predictor of hopelessness and suicidal ideation (Kim & Yang (2015), and LGB students have reported more perceived burdensomeness than their heterosexual peers (Hill & Pettit, 2012). Thwarted belongingness, however, has mixed associations with suicidal thoughts and behaviors among sexual minority people. For instance, Ploderl and colleagues (2014) compared the Minority Stress Model (Meyer, 2003) with the ITS among sexual minority people; they found lack of social support and thwarted belongingness to be predictive of suicidal ideation. Contrary to this, others have reported a nonsignificant relationship between thwarted belongingness and suicidal ideation (Hill & Petit, 2012; Kim & Yang, 2015) and suicide proneness (Cramer et al., 2015), positing that support within the community offers resilience to feeling socially isolated. Indeed, Riley and McLaren (2018) found that partnered gay men reported lower thwarted belongingness and lower suicidal behavior.

There is a dearth of research examining capability for suicide among sexual minority people. In an unpublished dissertation, non-suicidal self-injury (NSSI), which is related to acquired capability through avenues such as increased pain tolerance (Joiner, 2005; Joiner et al., 2012; Willoughby et al., 2015), significantly predicted suicide attempts among gay and bisexual male youth (Barletta, 2019). Indeed, sexual minority people report engagement in NSSI at about three times the occurrence in heterosexual

people, and family support offers resilience to engaging in NSSI (Reisner et al., 2014). NSSI relates to increased suicidal ideation and behavior among sexual minority people through acquired capability (Muehlenkamp et al., 2015). In a similar vein, the increased occurrence of suicide attempts among male sexual minority people who are rejected by their family (i.e., 8.4 times higher likelihood; Ryan et al., 2009) may be an additional factor associated with decreased pain sensitivity and, subsequently, increased acquired capability (Joiner, 2005). To address this limitation of past research, the current study will examine both suicidal desire constructs and capability for suicide in gay and bisexual men.

Internalized homophobia

Sexual minority people are commonly the victims of negative stereotypes and attitudes that are termed collectively as sexual prejudice (Herek, 2004). In addition to this external harmful perception, sexual minority people may direct these negative attitudes inward, allowing them to negatively influence their self-concept and develop internalized sexual stigma or homophobia (Herek et al., 2009). This internalized sexual stigma is more prominent in sexual minority men in comparison to sexual minority women, and even greater in bisexuals in comparison to homosexuals (Herek et al., 1997). The prominence of internalized homophobia among male sexual minority people may be related to the greater sexual prejudice experienced by male sexual minority people, possibly relating to societal expectations about masculinity (see Herek & McLemore, 2013, for a more extensive review). Given the negative connotations and outcomes associated with internalized homophobia (e.g., depression, McLaren, 2016; poor self-esteem, Herek et al., 2009), empirical evidence supports its association with suicidal

thoughts and behaviors. Internalized homophobia and shame are associated with death by suicide (Skerret et al., 2016), suicidal ideation (Cramer et al., 2015), and attempted suicide (Ploderl et al., 2014). This association may be accounted for by depressive symptoms (McLaren, 2016), which are further influenced by the degree to which a sexual minority member discloses their sexual orientation (Michaels et al., 2016).

Internalized stigma is mitigated and related to better psychological outcomes when gay and bisexual men are a part of environments that encourage autonomy and authenticity (Ryan et al., 2017). Specifically, regarding parents, greater supportive environments and encouraged self-expression relates to less internalized homophobia, depression, and anxiety, and higher self-esteem, possibly through the development of better coping mechanisms (Legate et al., 2018). Indeed, rejection from one's parents due to sexual orientation is associated with greater internalized homophobia, as well as suicidal ideation and psychological distress (i.e., depression, anxiety) in part due to lessened social support (Puckett et al., 2015).

Examining the association between internalized homophobia and suicide proneness within the framework of the ITS, Cramer and colleagues (2015) recruited 336 self-identified LGB community members, the majority of which were male (71.7%). Perceived burdensomeness, and not thwarted belongingness, accounted for variance in the association between internalized homophobia and suicide proneness. Moreover, these indirect effects were observed to be greater among males and those who reported depressive symptoms. Similar results were reported by Woodward and colleagues (2014), with perceived burdensomeness, and not thwarted belongingness, significantly predicting suicidal ideation among gay men, lesbians, and bisexual men and women.

Additional research is necessary to further delineate the association between thwarted belongingness and suicidal thoughts and behaviors among sexual minority people; therefore, the current study aimed to assess this association while accounting for perceived social support. An additional aim of the current study was to further extant research in assessing the role of capability in predicting suicidal thoughts and behaviors among gay and bisexual men. To our knowledge, no prior literature has examined the influence of parental rejection, internalized homophobia, and the ITS constructs in predicting suicidal thoughts and behaviors among gay and bisexual men.

Current study

The primary focus of the current study was to examine the association between parental/primary caregiver rejection, internalized homophobia, and the ITS constructs in predicting suicidal thoughts and behaviors amongst gay and bisexual men. In line with prior research, we expected that parental rejection (e.g., Ryan et al., 2009), internalized homophobia (Skerret et al., 2016), and perceived burdensomeness (Woodward et al., 2014) would all be significant predictors of suicidal thoughts and behaviors. Given the possible resilience offered by social support (Cramer et al., 2015), we expected that thwarted belongingness would be a significant predictor of suicidal thoughts and behaviors when controlling for perceived social support.

Specifically, the current study examined three models for each outcome of suicidal ideation (Model 1a-1c), number of past suicide attempts (Model 2a-2c), and likelihood of future suicide (Model 3a-3c), respectively. First (Models 1a, 2a, 3a), we expected that family rejection would have a significant indirect effect on all three outcomes through internalized homophobia, as supported by previous literature (Puckett

et al., 2015). Next (Models 1b, 2b, 3b), we expected that the addition of the ITS constructs to the model (i.e., the serial presence of internalized homophobia followed by the ITS domains of perceived burdensomeness, thwarted belongingness, and capability) would account for greater variance in the association between parental rejection and each outcome than internalized homophobia or the ITS domains alone. Prior literature has empirically supported a model with ITS constructs of perceived burdensomeness and thwarted belongingness accounting for variance in the association between internalized homophobia and suicidal proneness (Cramer et al., 2015). As such, we expected that perceived burdensomeness and thwarted belongingness would account for variance within the association between internalized homophobia and suicidal ideation, number of past suicide attempts, and likelihood of future suicide. Given prior evidence (Van Orden et al., 2008), we expected capability to account for a significant amount of variance in the association between internalized homophobia and number of past suicide attempts and likelihood of future suicide, but *not* suicidal ideation. Finally (Models 1c, 2c, 3c), we expected that the aforementioned significant indirect effects would be maintained with the inclusion of the following covariates: anxiety, depression, stress, masculine gender roles, and social support.

CHAPTER II – METHODS

Participants and Procedure

Prior literature revealed that internalized homophobia typically exhibits a small effect (i.e., $\eta^2 = 0.03$; Cramer et al., 2015) on suicidal thoughts and behaviors. An *a prio*ri power analysis was conducted via G-Power (Version 3.1.9.2: Faul et al., 2007) to assess the number of participants needed to detect a small effect size within an indirect effect analysis with five predictors. The number of participants recommended to detect a small effect size at an alpha level of .05 and .80 power is 395.

A total of 679 cis-gender sexual minority men were recruited from the community via ads posted on Facebook, Reddit, and Craigslist, as well as through Amazon's Mechanical Turk (mTurk). Participation was limited to cis-gender (i.e., identify both sex-at-birth and gender as male) sexual minority men. Sexual orientation was assessed using the Heterosexual-Homosexual rating scale (HHRS; Kinsey et al., 1948/1998). The HHRS is a 7-point dimensional rating scale of sexual orientation that ranges from 0(*exclusively heterosexual*) to 6(*exclusively homosexual*). As suggested by prior research in categorizing sexual orientation (e.g., Ciocca et al., 2020; Kinsey et al., 1948/1998), the current study operationalized sexual minority males as those who rated their sexual orientation from 2 (*predominantly heterosexual, only incidentally homosexual*) to 7 (*exclusively homosexual*). Participants from community ads (e.g., Facebook, Craigslist) were entered for a chance to win one of 25 $10 gift cards. mTurk participation was awarded $0.05 for completion of a screener and $4 for completion of the full survey.

Across samples, response validity was assessed via multiple choice and textbox entry questions that included items such as "Please select 'True'" and "Select 'False'."

Additionally, the Triarchic Assessment Procedure for Inconsistent Responding (TAPIR; Mowle et al., 2017) for the Triarchic Psychopathy Measure (TriPM, Patrick, 2010) was used to remove additional participants who responded inconsistently, using the recommended cut-off for community samples of 13. A total of 234 participants were removed from analyses due to failing quality assurance questions and/or inconsistent responding. Additionally, 31 participants were removed for incomplete or missing data. Due to participants reporting not disclosing their sexual identities to their family members or primary caregivers, an additional 103 cases were excluded from primary analyses.[1]

The final sample used in primary analyses were 311 cis-gender sexual minority men with an average age of 30.96 years (*SD* = 9.60). Of the 311 participants, 175 (56.3%) came from community board recruitment and 136 (43.7%) came from Amazon's mTurk. One hundred seventy-six (56.6%) participants identified as bisexual males, with 135 (43.4%) of the sample identifying as gay males. Regarding race/ethnicity, 259 (83.3%) identified as White, 14 (4.5%) as Latino/a, 12 (3.9%) as Native American, 11 (3.5%) as Black, 6 (1.9%) as Multiracial, 5 (1.6%) as Asian, 3 (1.0%) as Other/Not Listed, and 1 (0.3%) as Middle Eastern. A total of 146 (46.9%) participants reported at least one lifetime suicide attempt (ranging from 0 - 25 total attempts).

[1] Excluded participants did not significantly differ from included participants on age (t = 0.18, p =.844). Excluded participants did significantly differ from included participants in regard to race (χ^2 = 24.71, p = .002) and sexual orientation (i.e., HHRS; χ^2 = 24.18, p < .001)

Measures

Descriptive statistics for all variables are reported in Table 1. Internal consistency reliability for all continuous variables was evaluated by examining Cronbach's alpha (α) and inter-item correlation means (r). Overall, all study variables demonstrated acceptable internal consistency reliability (see Table 1).

Independent Variables

Family Rejection. The Acceptance-Rejection Scale (ARS; Ross, 1985) is a 20-item scale that assesses the degree of perceived rejection from 20 individuals within a person's life. Responses were provided on a 9-point scale, with greater values indicating more perceived rejection. Using responses from the UMass Boston Comprehensive Demographics Questionnaire (Suyemoto et al., 2016) regarding identification of primary caregivers, composite scores for rejection were calculated by summing the rejection ratings for the primary caregiver.

Mediators

Internalized Homophobia. The Internalized Homophobia Scale (IHP; Martin & Dean, 1987) is a nine-item measure of internalized sexual stigma that manifests in negative perceptions of self among sexual minority members. Responses on the IHP are on a 5-point scale and range from 1(*disagree strongly*) to 5(*agree strongly*). A composite score of internalized homophobia was created by summing responses to the items.

Capability for Suicide. Capability was assessed by the Suicide Capacity Scale (SCS; Klonsky & May, 2015), which is a six-item self-report scale that assesses dispositional, practical, and acquired capability to do suicide. Responses are on a 7-point Likert scale from 0(*strongly disagree*) to 6(*strongly agree*). Composite scores were

Table 1 *Correlational and internal consistency analyses for all study variables.*

	M	*SD*	*α*	*r*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Independent																			
1. FR	3.62	2.20	-	-															
Mediators																			
2. IH	21.13	10.25	.94	.65	**.36**														
3. PB	17.00	10.42	.96	.80	**.38**	**.64**													
4. TB	31.27	10.46	.83	.37	.24	.25	**.39**												
5. SC	20.65	7.93	.83	.44	.05	.15	**.30**	-.18											
Dependent																			
6. SUI	24.32	8.62	.89	.43	.26	**.44**	**.69**	**.39**	**.31**										
7. SA (number)	1.59	0.49	-	-	.10	.25	**.31**	.07	.11	**.32**									
8. SA (future)	0.97	1.24	-	-	.25	**.53**	**.67**	.24	.27	**.70**	**.37**								
Covariates																			
9. DASD	15.93	5.84	.92	.61	.26	**.50**	**.70**	**.54**	.20	**.68**	.23	**.57**							
10. DASA	14.19	5.47	.89	.55	**.34**	**.64**	**.69**	**.32**	.18	**.55**	**.30**	**.60**	**.66**						
11. DASS	15.67	5.00	.87	.48	**.30**	**.54**	**.60**	**.38**	.13	**.53**	.23	**.51**	**.76**	**.76**					
12. NON	22.14	4.21	.71	.25	**-.35**	**-.31**	**-.50**	**-.72**	.04	**-.42**	-.17	**-.32**	**-.50**	**-.40**	**-.42**				
13. SDS	13.74	5.42	.90	.65	.05	-.17	-.05	.22	-.10	.09	-.04	.00	.09	-.10	-.10	-.12			
14. RES	14.02	5.48	.92	.69	-.12	-.23	**-.32**	**-.42**	-.13	-.25	-.04	-.22	**-.30**	-.25	-.22	**.34**	.13		
15. IAS	15.16	5.61	.89	.62	-.23	**-.38**	**-.42**	**-.50**	-.02	**-.30**	-.06	-.29	**-.37**	**-.32**	-.29	**.41**	.04	**.71**	
16. SRC	13.27	3.76	.71	.33	-.10	-.14	-.16	-.06	-.21	-.06	-.06	-.11	-.11	-.13	-.14	.10	.42	**.41**	**.37**

Note. All correlations greater than 0.11 are significant at $p < .05$; bolded correlations are medium or larger effect size; Cronbach's alpha (α) and average inter-item correlations (r) are presented for each variable; FR = Family Rejection; IH = Internalized Homophobia; PB = Perceived Burdensomeness; TB = Thwarted Belongingness; SC = Suicide Capability; SUI = Suicidal Ideation; SA = Suicide Attempts [number = number of lifetime attempts, future = likelihood of future attempts]; DASD = Depression; DASA = Anxiety; DASS = Stress; NON = Nonsupport; Masculine Behavior subscales: SDS = Success dedication, RES = Restrictive emotionality, IAS = Inhibited affection, SRC = Exaggerated self-reliance and control.

created by summing questionnaire items, with greater scores indicating greater capability for suicide.

Suicidal Desire. The Interpersonal Needs Questionnaire-15 (INQ-15; Van Orden et al., 2012) is a 15-item self-report questionnaire that assesses feelings of perceived burdensomeness (i.e., feeling like burden on others and society) and thwarted belongingness (i.e., feeling disconnected from others). Responses range from 1(*not at all true for me*) to 7(*very true for me*). Composite scores were calculated for perceived burdensomeness and thwarted belongingness, respectively, by summing items within their respective scales.

Dependent Variables

Suicidal thoughts and behaviors. Suicidal ideation was assessed using the Suicidal Ideation (SUI; 12 items) scale from the Personality Assessment Inventory (PAI; Morey, 1991/2004). The SUI scale assesses suicide risk through endorsed thoughts of death, contemplation of suicide, and degree of consideration for suicide. Response options on the PAI range from 0(*False*) to 3(*Very True*). A composite score was created for the SUI scale by summing item responses.

The Self-Injurious Thoughts and Behavior Interview (SITBI; Nock et al., 2007) was also administered. The SITBI is a structured interview that assesses the presence of suicidal ideation, self-injurious behavior, suicide plans and attempts, and non-suicidal self-injury. The current study utilized a modified self-report version of this interview to assess the number of lifetime suicide attempts (count variable) and likelihood of future suicide attempts. The SITBI also includes a 5-point scale from 0(*low/little*) to 4(*very much/severe*) for participants to rate their likelihood of future suicide attempts. The

SITBI has demonstrated acceptable validity and reliability in assessing self-injurious thoughts and behaviors (Nock et al., 2007).

Covariates

Social Support. The Nonsupport (NON; 8 items) scale of the PAI was used to assess perceived social support. The NON scale measures perceived lack of social support and close relationships, with higher scores indicating more supportive relationships. Responses on the PAI range from 0(*False*) to 3(*Very True*). A composite score was created for the NON scale by summing item responses.

Depression and Anxiety. The Depression, Anxiety, Stress Scale - 21 (DASS-21; Lovibond & Lovibond, 1995) is a 21-item self-report questionnaire that assesses levels of depression, anxiety, and stress on a scale from 0 to 3. The DASS-21 was included to assess additional psychological symptoms of anxiety and depression to include as covariates.

Masculine Behavior Scale. The Masculine Behavior Scale (MBS; Snell, 1989) is a self-report measure of behaviors stereotypically exhibited most frequently among men in comparison to women. The MBS capture four domains of stereotypically masculine behavior including restrictive emotionality (RES), inhibited affection (IAS), success dedication (SDS), and exaggerated self-reliance (ESR). Responses are on a 5-point scale from 1(*agree*) to 5(*disagree*) and composite scores were created by summing responses such that greater scores indicate less masculine behavior.

Data Analysis

Prior to computing composite scores or running primary analyses, continuous variable distribution properties were examined through histograms and boxplots.

Skewness and kurtosis were evaluated for continuous variables based on guidelines for larger samples (i.e., see Gupta et al., 2019, for a review), and all continuous study variables were within acceptable limits. Preliminary analyses included bivariate correlations between all study variables. Effect sizes for correlations were assessed and interpreted in line with common benchmarks (small: 0.1, medium: 0.3, large: 0.5; Cohen, 1988).

Indirect effects were assessed using M*plus* software (v.8; Muthén & Muthén, 1998-2017). Three models were tested with each of the dependent variables of suicidal ideation, suicide attempts, and likelihood of future attempts, respectively. Model 1 assessed indirect effects of family rejection of the dependent variable through internalized homophobia alone. Model 2 assessed indirect effects of family rejection on the dependent variable through internalized homophobia and the ITS Constructs. Model 3 assessed the same relationships as the second model, in addition to the covariates. Model fit was assessed across models using Root Mean Square Error of Approximation (RMSEA; benchmarks: <.05 good, <.08 reasonable, >.10 not good), the Standardized Root Mean-Squared Residual statistic (SRMR; benchmark 0 – 0.08 is acceptable), Comparative Fit Index (CFI; benchmarks: >.95 good, >.90 adequate), and the Tucker-Lewis Index (TLI; benchmarks: >.95 good fit, >.90 adequate fit; Hu & Bentler, 1999). Effect sizes were assessed through parameter estimates for each pathway, in addition to *R*-squared (R^2) to determine the percentage of variance explained by the model.

CHAPTER III - RESULTS

Preliminary Analyses

Independent samples *t*-tests were conducted to assess discrepancy in primary study variables between our two sample sources (i.e., Amazon's mTurk and community boards). Results indicated that participants from Amazon's mTurk reported higher levels on all primary study variables (i.e., excluding covariates) except Thwarted Belongingness (see Table 2).

Bivariate correlational analyses were conducted for all primary study variables and covariates in the current study (see Table 1). Mostly as expected, Family Rejection evinced significant, positive, small- to medium-sized correlations with all primary study variables (r ranges from 0.24 to 0.38) except, unexpectedly, not for number of past suicide attempts (r = 0.10) and Capability (r = 0.05). In line with our expectations, Internalized Homophobia evinced significant, positive correlations with all primary study variables. Specifically, Internalized Homophobia evinced a small-medium correlation with Thwarted Belongingness (r = 0.25), Capability (r = 0.15), and number of past suicide attempts (r = 0.25), and Internalized Homophobia demonstrated medium-large correlations with Family Rejection (r = 0.36), Perceived Burdensomeness (r = 0.64), and Suicidal Ideation (r = 0.44). Perceived Burdensomeness was also significantly and positively associated with all primary study variables with medium to large effects (rs range from 0.30 to 0.69). Partially as we expected, Thwarted Belongingness evinced positive small- to medium-sized correlations with Family Rejection (r = 0.24), Internalized Homophobia (r = 0.25), Perceived Burdensomeness (r = 0.39), Suicidal Ideation (r = 0.39), and likelihood of future suicide attempts (r = 0.24); however,

Table 2 *Independent samples t-tests comparing sample sources (i.e., Amazon's mTurk v. Community) on primary study variables.*

Variable	mTurk ***M* (*SD*)**	community ***M* (*SD*)**	*t*
FR	3.93 (2.29)	3.38 (2.09)	**-2.21**
IH	28.18 (10.98)	18.02 (7.84)	**-9.12**
PB	24.79 (10.00)	13.13 (7.81)	**-11.18**
TB	31.76 (8.12)	31.01 (10.80)	-0.69
SC	22.44 (8.16)	19.29 (7.64)	**-3.50**
SUI	27.85 (8.01)	22.85 (8.32)	**-5.32**
SA (number)	2.31 (3.54)	0.98 (2.96)	**-3.59**
SA (future)	1.68 (1.29)	0.67 (1.08)	**-7.18**

Note. All bolded *t*-values are significant at $p < .05$; FR = Family Rejection; IH = Internalized Homophobia; PB = Perceived Burdensomeness; TB = Thwarted Belongingness; SC = Suicide Capability; SUI = Suicidal Ideation; SA = Suicide Attempts [number = number of lifetime attempts, future = likelihood of future attempts].

Thwarted Belongingness evinced a negative small-medium-sized correlation with Capability (r = -0.18) and was not significantly correlated with number of past suicide attempts (r = 0.07). Given the association between the ITS Constructs, they were allowed to correlate in the models to delineate any unique effects.

Regarding covariates, Depression (*rs* range from 0.20 to 0.70), Anxiety (*rs* range from 0.18 to 0.69), and Stress (*rs* range from 0.13 to 0.60) were all positive and significantly correlated with primary study variables. Nonsupport was negatively and significantly associated with all primary study variables (*rs* range from -0.17 to -0.72) except Capability (r = 0.04). For the Masculine Behavior Scale subscales, Restricted Emotionality (*rs* range from -0.12 to -0.42) and Inhibited Affection (*rs* range from -0.23 to -0.50) held negative correlations with almost all primary study variables. Restricted Emotionality was not significantly correlated with number of past suicide attempts (r = -0.04), and Inhibited Affection was not significantly correlated with Capability (r = -0.02) nor number of past suicide attempts (r = -0.06). Success Dedication (*rs* range from -0.17 to 0.22) and Exaggerated Self-reliance and Control (*rs* range from -0.21 to -0.06) evinced mixed small correlations with primary study variables. Given the relationships between Depression, Anxiety, Stress, Nonsupport, Restricted Emotionality, and Inhibited Affect with primary study variables, these variables were included in further analyses to aid in delineating unique effects.

Suicidal Ideation

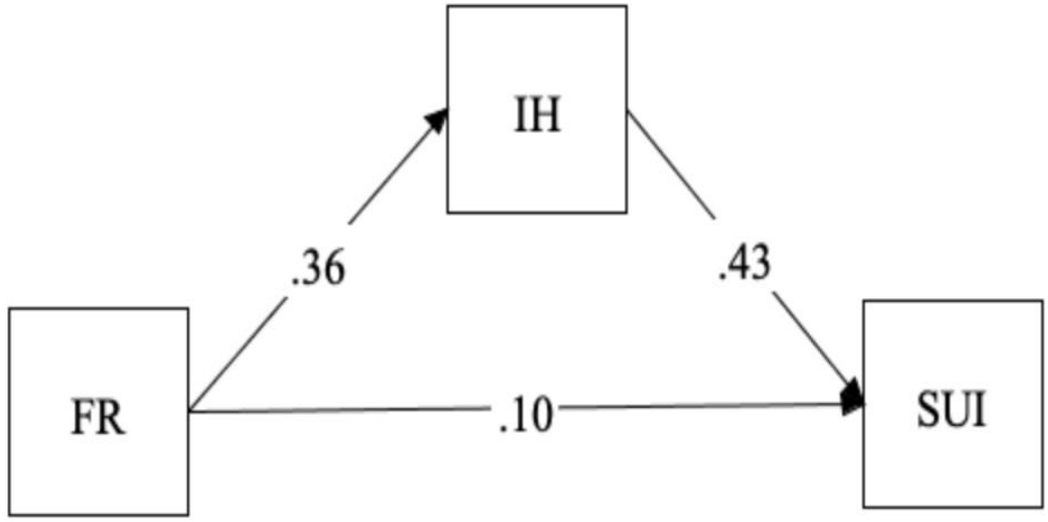
Model 1a evaluated the hypothesized indirect effect of Family Rejection on Suicidal Ideation through Internalized Homophobia. This model was just identified given the number of predictors, which prevented model fit statistics from being interpreted.

Family Rejection was a significant predictor of Internalized Homophobia (β = 0.36, p < .001) and explained approximately 12.7% of the variance in Internalized Homophobia. Family Rejection was not a significant predictor of Suicidal Ideation (β = 0.10, p = .062), though Internalized Homophobia was a significant predictor of Suicidal Ideation (β = 0.43, p < .001). Overall, this was in line with our hypotheses, and the model accounted for 23.1% of the variance in Suicidal Ideation. Family Rejection exhibited a significant indirect effect on Suicidal Ideation through Internalized Homophobia (b = 0.60, p < .001; 95% CI: 0.40, 0.87; see *Figure 1a*).

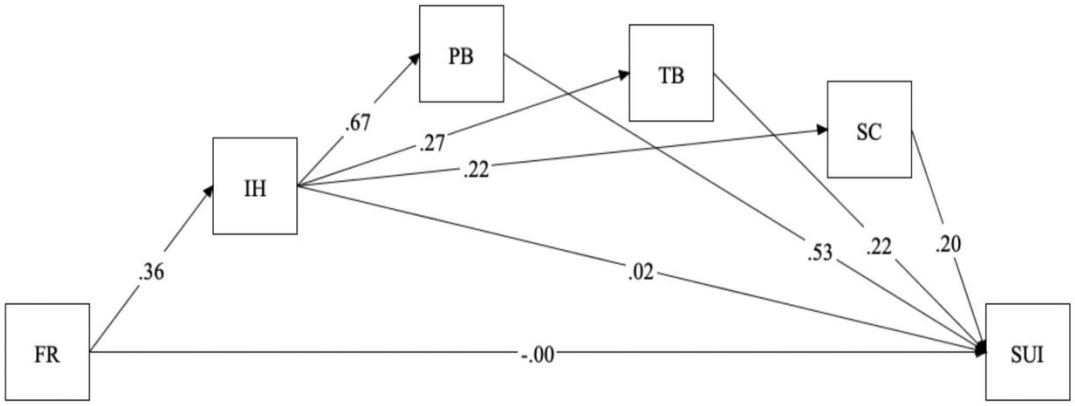
Next, we examined the impact of the inclusion of the ITS Constructs in the model (Model 1b). Fit statistics (RMSEA = 0.128, CFI = 0.974, TLI = 0.872, SRMR = 0.044) are suggestive of acceptable fit for this model, and the results largely supported our hypotheses. Neither Family Rejection (β = -0.004, p = .933) nor Internalized Homophobia (β = 0.02, p =.784) remained significant predictors of Suicidal Ideation. Perceived Burdensomeness (β = 0.53, p < .001) and Thwarted Belongingness (β = 0.22, p < .001) were both significant predictors of Suicidal Ideation, as hypothesized. Capability (β = 0.20, p < .001), however, was also a significant predictor of Suicidal Ideation, which we did not expect. Overall, this model accounted for 52.1% of the variance in Suicidal Ideation, and Family Rejection exhibited a significant indirect effect on Suicidal Ideation through Internalized Homophobia and the ITS Constructs (b = 0.64, p < .001; 95% CI: 0.42, 0.89; see *Figure 1b*). Unique pathways through Internalized Homophobia and Perceived Burdensomeness (b = 0.49, p < .001; 95% CI: 0.31, 0.72), Thwarted Belongingness (b = 0.08, p = .003; 95% CI: 0.04, 0.15), and Capability (b = 0.06, p = .012; 95% CI: 0.02, 0.12) were also significant.

Figure 1. Models predicting suicidal ideation.

1a.



1b.



Note. FR = Family Rejection; IH = Internalized Homophobia; PB = Perceived Burdensomeness; TB = Thwarted Belongingness; SC = Suicide Capability; SUI = Suicidal Ideation

Contrary to expectations, with the inclusion of covariates (Model 1c; Depression, Anxiety, Stress, Nonsupport, Restricted Emotionality, and Inhibited Affect), model fit statistics (RMSEA = 0.265, CFI = 0.513, TLI = 0.189, SRMR = 0.284) suggest poor model fit and, therefore, further interpretation of the model is not recommended. Of note, all unique pathways and overall indirect effects remained significant with the inclusion of the covariates.

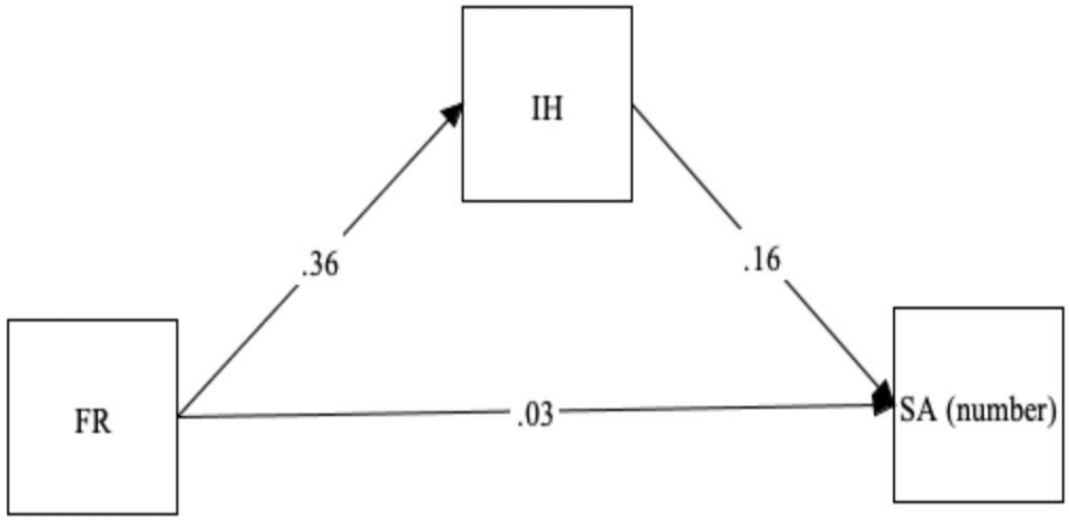
Suicide Attempts

We repeated the same three analyses predicting lifetime history of suicide attempts. Model 2a, testing indirect effects of Family Rejection on number of past suicide attempts through Internalized Homophobia, was a negative binomial model due to the zero-inflated nature of past suicide attempts (146 [46.9%] participants with past suicide attempts, ranging from 0 to 25 past attempts). This prevented model fit statistics from being interpreted. Family Rejection did not significantly predict number of past suicide attempts (β = 0.03, p = .827) and Internalized Homophobia was not a significant predictor of number of past suicide attempts (β = 0.16, p = .274). Overall, contrary to our hypotheses, Family Rejection did not demonstrate a significant indirect effect on number of past suicide attempts through Internalized Homophobia (b = 0.03, p = .284; 95% CI: -0.02, 0.08; see *Figure 2a*).

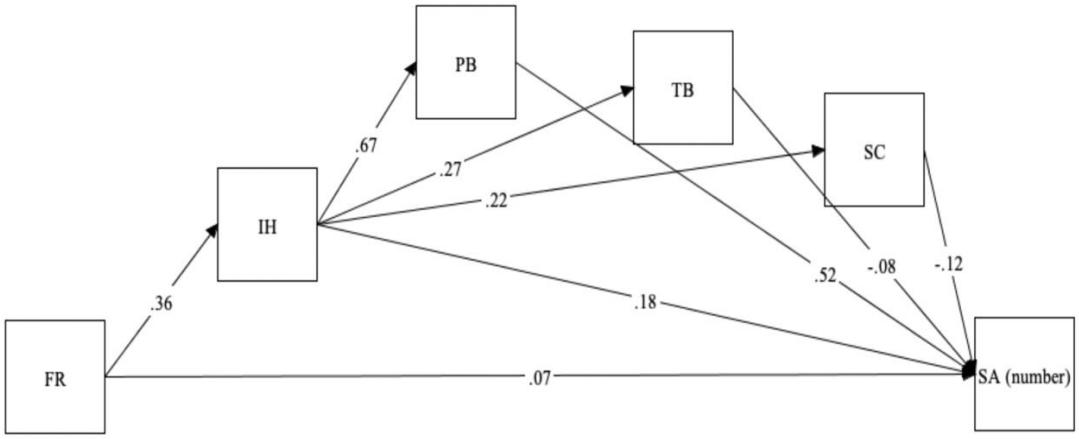
Model 2b tested the impact of adding ITS Constructs after Internalizing Homophobia (serial mediation) in predicting number of past suicide attempts. Model fit statistics were again not available due to the use of negative binomial modelling. Our hypotheses were not fully supported as neither Family Rejection (β = 0.07, p = .547), Internalized Homophobia (b = 0.18, p =.266), Thwarted Belongingness (β = -0.08, p

Figure 2. Models predicting suicide attempts.

2a.



2b.



Note. FR = Family Rejection; IH = Internalized Homophobia; PB = Perceived Burdensomeness; TB = Thwarted Belongingness; SC = Suicide Capability; SA (number) = Suicide Attempts (number of lifetime attempts)

=.666), nor Capability (β = -0.12, p =.474) were significant predictors of number of past suicide attempts. In line with our expectations, Perceived Burdensomeness (β = 0.52, p = .007) was the only significant predictor of number of past suicide attempts. Overall, Family Rejection exhibited a significant indirect effect on number of past suicide attempts through Internalized Homophobia and the ITS Constructs (b = 0.05, p = .027; 95% CI: 0.01, 0.11; see *Figure 2b*). Unique pathways through Internalized Homophobia and Perceived Burdensomeness (b = 0.06, p = .014; 95% CI: 0.02, 0.12) were significant, while pathways through Internalized Homophobia and Thwarted Belongingness (b = -0.003, p = .685; 95% CI: -0.02, 0.01) and Capability (b = -0.004, p = .515; 95% CI: -0.02, 0.01) were not.

Again, our hypotheses were partially supported when covariates were added (Model 2c). Perceived Burdensomeness remained (β = 0.39, p = .045) and Thwarted Belongingness became (β = -0.49, p = .045) significant predictors of number of past suicide attempts in the model. Family Rejection did not exhibit a significant indirect effect on number of past suicide attempts through Internalized Homophobia and the ITS Constructs (b = 0.01, p = .674; 95% CI: -0.04, 0.08). Unique pathways through Internalized Homophobia and Perceived Burdensomeness (b = 0.05, p = .061; 95% CI: 0.01, 0.11) remained significant, Internalized Homophobia and Thwarted Belongingness (b = -0.02, p = .089; 95% CI: -0.05, -0.002) became significant, and Capability (b = -0.01, p = .152; 95% CI: -0.03, 0.001) remained not significant.

Likelihood of Future Suicide Attempts

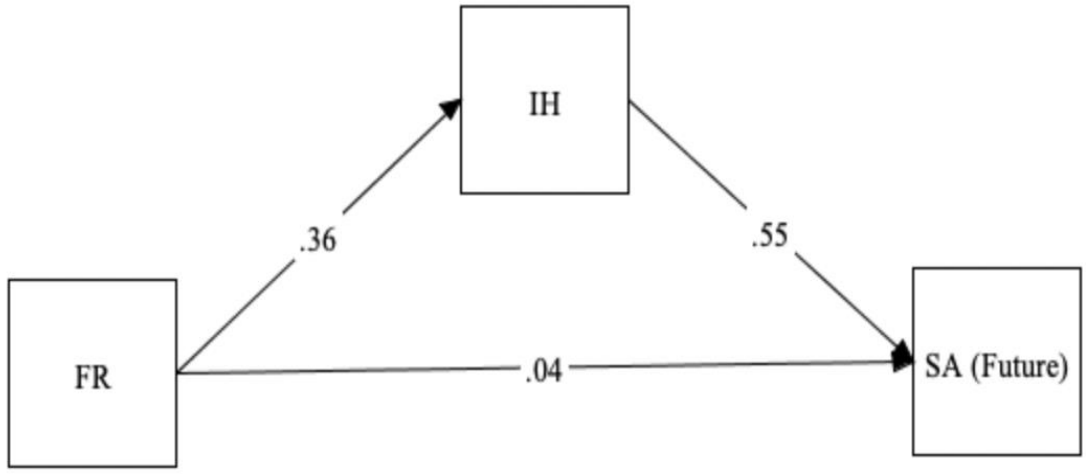
Model 3a, testing for indirect effects of Family Rejection on Likelihood of Future Suicide through Internalized Homophobia, was just identified given the number of

predictors, which prevented model fit statistics from being interpreted. Family Rejection was a significant predictor of Internalized Homophobia (β = 0.36, p < .001). Family Rejection was not a significant predictor of Likelihood of Future Suicide Attempts (β = 0.04, p = .532) and Internalized Homophobia was a significant predictor of Likelihood of Future Suicide Attempts (β = 0.55, p < .001). Overall, the model was in line with our hypotheses and accounted for 31.9% of the variance in Likelihood of Future Suicide Attempts. Further, Family Rejection exhibited a significant indirect effect on Likelihood of Future Suicide Attempts through Internalized Homophobia (b = 0.12, p < .001; 95% CI: 0.08, 0.16; see *Figure 3a*).

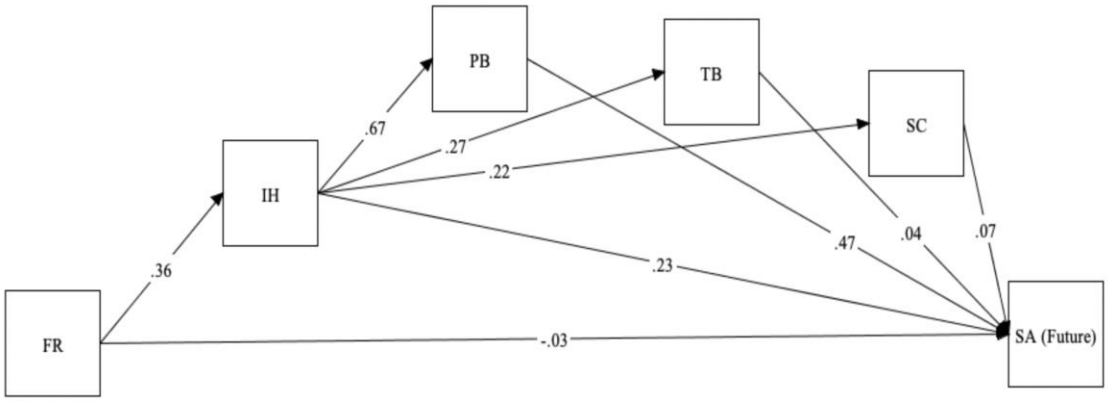
Model fit statistics (RMSEA = 0.126, CFI = 0.974, TLI = 0.868, SRMR = 0.042) are suggestive of acceptable fit for Model 3b, which included the ITS Constructs. Family Rejection (β = -0.03, p = .519) was not a significant predictor of Likelihood of Future Suicide Attempts. Contrary to expectations, Thwarted Belongingness (β = 0.04, p = .462) and Capability (β = 0.07, p = .089) were not significant predictors of Likelihood of Future Suicide Attempts. As hypothesized, Internalized Homophobia (β = 0.23, p < .001) and Perceived Burdensomeness (β = 0.47, p < .001) were both significant predictors of Likelihood of Future Suicide Attempts. Overall, this model accounted for 46.5% of the variance in Likelihood of Future Suicide Attempts, and Family Rejection exhibited a significant indirect effect on Likelihood of Future Suicide Attempts through Internalized Homophobia and the ITS Constructs (b = 0.07, p < .001; 95% CI: 0.05, 0.10; see *Figure 3b*). Unique pathways through Internalized Homophobia and Perceived Burdensomeness (b = 0.07, p < .001; 95% CI: 0.04, 0.10) and Capability (b = 0.003, p = .158; 95% CI:

Figure 3. Models predicting likelihood of future suicide.

3a.



3b.



Note. FR = Family Rejection; IH = Internalized Homophobia; PB = Perceived Burdensomeness; TB = Thwarted Belongingness; SC = Suicide Capability; SA (Future) = Suicide Attempts (likelihood of future attempts).

0.00, 0.01) were also significant, while the pathway through Internalized Homophobia and Thwarted Belongingness (b = 0.002, p = .477; 95% CI: -0.003, 0.01) was not significant.

With the inclusion of covariates (Model 3c), model fit statistics (RMSEA = 0.265, CFI = 0.490, TLI = 0.151, SRMR = 0.278) suggest poor model fit and, therefore, further interpretation of the model is not recommended. Of note, the pathway through Internalized Homophobia and Capability (b = 0.002, p = .337; 95% CI: -0.001, 0.008) was not significant with the inclusion of the covariates.

CHAPTER IV – DISCUSSION

The current study sought to investigate the association between family rejection, internalized homophobia, the ITS constructs, and suicidal thoughts and behaviors (i.e., suicidal ideation, suicide attempts, and likelihood of future attempts) among gay and bisexual men. Specifically, we expected an indirect effect of family rejection on suicidal ideation, suicide attempts, and likelihood of future suicide attempts through internalized homophobia. Moreover, we expected the variance in the serial association between internalized homophobia and suicidal thoughts and behaviors to be accounted for by the ITS constructs (i.e., perceived burdensomeness, thwarted belongingness, and capability). We also expected these indirect effects to be maintained with the inclusion of various covariates (i.e., anxiety, depression, stress, male gender norms, social support). In line with prior literature, we expected capability to *not* account for a significant amount of variance in the association between internalized homophobia and suicidal ideation (Van Orden et al., 2008). While prior research has investigated the presence of suicidal thoughts and behaviors among gay and bisexual men (e.g., Bolton & Sareen, 2011), and more specifically indirect effects of internalized homophobia, ITS constructs, and suicidal ideation (e.g., Cramer et al., 2015), ours is the first study to incorporate family rejection as a predictor in this model. Further, most extant literature tends to focus on sexual minority people as a unitary group, where our study aimed to fill the gap in this literature by focusing on one specific at-risk population of sexual and gender minorities: gay and bisexual men.

Overall, our hypotheses regarding the prediction of suicidal ideation were mostly supported. That is, our results indicated that family rejection evinced indirect effects on

suicidal ideation through internalized homophobia, and the variance in the association between internalized homophobia and suicidal ideation was further explained by the inclusion of the ITS constructs. Our results suggest that gay and bisexual men who report rejection from their family due to their identities are likely to experience suicidal ideation, at least partly related to increased self-reported internalized homophobia and ITS constructs. These findings are in line with prior literature supporting the influence of family rejection (e.g., Ryan et al., 2010), internalized homophobia (e.g., Cramer et al., 2015), and ITS constructs (e.g., Woodward et al., 2014; Muehlenkamp et al., 2015) on suicidal ideation among sexual minority people.

Models predicting number of past suicide attempts did not fully support our hypotheses, with the only significant predictor being perceived burdensomeness. This finding may capture the degree of perceived burdensomeness within the sexual minority community, as extant research has evidenced individuals who identify as sexual minorities to experience significantly greater levels of perceived burdensomeness than heterosexuals (Pate & Anestis, 2019). Prior research, however, suggests that internalized homophobia and thwarted belongingness should exhibit significant, positive relationships with history of suicide attempts among sexual minority people (e.g., Barletta, 2019; Ploderl et al., 2014; Riley & McLaren, 2018). A possible explanation for these findings in comparison to other research lies in the cross-sectional nature of the collected data. Given that our sample data was collected at a single time point, and past suicide attempts are historical, it is possible that the individual's reported feelings of internalized homophobia and belongingness may have changed over time since their last attempt. It is also possible that this particular group may receive unique types of social support (e.g., LGBTQ+

specific support groups) that were not assessed by the current study. An additional explanation may be that the constructs from the ITS may not assess components specifically predictive of suicide attempts for this specific demographic (Clark et al., 2022). Future studies may seek to collect longitudinal data for this population in order to overcome this possible barrier.

Given the uniqueness of the model predicting the likelihood of future suicide attempts in the extant literature, our hypotheses were largely exploratory, though we could draw rationale for our model from literature regarding suicidal thoughts and behaviors among sexual minority men (e.g., Cramer et al., 2015; Ploderl et al., 2014; Puckett et al., 2015; Skerret et al., 2016). Overall, our hypothesis was partially supported in that the model identified increased internalized homophobia, perceived burdensomeness, and suicidal capability as possible factors to predict perceived likelihood of future suicidal thoughts and behaviors. These results fall in line with past literature illustrating internalized homophobia and perceived burdensomeness as predictors of suicidal thoughts and behaviors (e.g., Cramer et al., 2015; Hill & Pettit, 2012; Kim & Yang, 2015). Additionally, as evidenced in previous literature of suicidal behaviors (e.g., Klonsky & May, 2015; Muehlenkamp et al., 2015), our study further shows capability for suicide holding predictive power for suicidal behaviors. Likelihood of future suicide attempts can be considered a subjective perception that an individual has about their future. As such, the findings from our study delineate feeling like a burden, internalized stigma and homonegativity, and, to a lesser extent, suicide capability as facets that potentially weigh highly on someone when they are considering suicide as a potential outcome. While extant literature (e.g., Ploderl et al., 2014) has found thwarted

belongingness to play a significant role in predicting the likelihood of future suicide, additional research is needed to explore why this was not the case in the current study. It may be possible that a lack of social support among this population plays less of a role in future-oriented suicidal thinking.

Overall, capability for suicide functioned in several unexpected ways within our sample. In accordance with the ITS model (Joiner, 2005; Van Orden et al., 2010; Van Orden et al., 2008), we expected a nonsignificant relationship between capability and suicidal ideation. Contrary to our expectations, our results revealed that capability for suicide was a significant predictor of suicidal ideation. Further research is necessary to explore possible reasons for this association in this sample; however, preliminary analyses suggest that, within our sample, capability evinced stronger associations with internal processes such as perceived burdensomeness, suicidal ideation, and likelihood of future suicide in comparison to reported external processes (e.g., number of past suicide attempts). This association with internalization may explain the discrepancy in how our sample responded in comparison to expectations. One recent study identified identity invalidation, painful and provocative events occurring through witnessing identity related trauma or societal stigma (e.g., legislation), and suicidal thoughts and behaviors being normalized (e.g., joked about, identified as a valid reaction) by the sexual minority community as predictors of suicidal behaviors (Clark et al., 2022). While these factors may be related to the ITS Constructs, it is possible that current measures of capability, as well as other measures of the ITS constructs, may require adaptation to assess suicide risk more accurately among sexual minority men. We also expected a significant relationship between capability and the number of past suicide attempts, but this association was not

observed. Predictions regarding suicidal behavior among sexual minorities is further complicated by the limited data collected on sexual identity among individuals who have died by suicide (see Haas & Lane, 2015 for a brief review).

Building upon previous literature regarding suicidal thoughts and behaviors (e.g., Joiner, 2005; Klonsky & May, 2015; Van Orden et al., 2008), the current study findings offer support for paying attention to family rejection, internalized homophobia, and the ITS Constructs as important factors in suicide risk assessment among sexual minority males. For example, our study lends additional support for risk factors for suicidal thoughts and behaviors related to parental rejection and internalized stigma (e.g., rejection sensitivity, negative parental reactions; D'Augelli et al., 2005). Furthermore, our study also further found a high rate of suicidal history among sexual minority males, as 46.9% in our sample reported prior suicide attempts, and to some extent, further validates the need for evaluation of personal experiences related to sexual identity in assessing suicide. Given the findings of our study, mental health professionals may probe for additional information regarding family relationship history and identity development and integration, in addition to ITS constructs (e.g., feeling like a burden, social isolation) when assessing for suicide risk for this population.

The current findings also offer support for internalized homophobia and rejection from one's primary caregiver as possible intervention targets aimed at reduction in suicidal ideation in gay and bisexual men, and internalized homophobia and suicidal ideation that is future oriented. At present, there is limited intervention research focused on internalized homophobia, and future research should aim to fill this gap. Acceptance and Commitment Therapy (ACT) has some initial support as a possible treatment for

internalized homophobia (Yadavaia & Hayes, 2012). This protocol consists of six to ten ACT sessions, and results showed a reduction in distress and thought interference in patients' lives, though self-stigma thoughts did not decrease in frequency.

Cognitive Behavior Therapy (CBT) is one possible intervention to address cognitive distortions related to sexual orientation and has been adapted (e.g., Affirmative CBT) for treatment with sexual minorities (see Craig et al., 2013, for a complete review and case study example). The overarching theme of Affirmative CBT is to strengthen the therapeutic alliance by the clinician helping the client develop all aspects of their identity and confronting their (the clinician's) own biases (Pachankis & Goldfried, 2013). Further, therapy is intended to focus on the development of appropriate support systems, examine the influence and face the impact of stigma/prejudice, reduce the client's shame about their identity, and demonstrate respect for the lifestyle of the client (Harrison, 2000). CBT has also been suggested as a possible intervention for family relationships and stigma arising from parents of LGBTQ+ children by challenging cognitive distortions related to their children's identity, and it can include exposure to certain provocative topics and the development of more effective communication (Willoughby & Doty, 2010).

The findings from the current study should be interpreted with a number of limitations in mind. First, comparisons of our two data sources indicate significant differences between community and Amazon's mTurk participants on all primary continuous variables except Thwarted Belongingness (see Table 2). While we were unable to determine causes for this discrepancy, future research may uncover other factors that relate to increases in suicidal thoughts and behaviors for this population. Further, our exclusive use of self-report measures can result in common method variance

(Podsakoff et al., 2003) and, in extension, possible inflated correlations between constructs because we used similar methods of data collection (e.g., self-report; Campbell & Fiske, 1959). Our study sample was also primarily White, thereby limiting the generalizability of our findings to sexual minority men from different racial and ethnic identity groups. In a similar vein, future studies should also seek more explicit measures of social support that are tailored to specific identities (e.g., support groups, religious organizations, etc.). Our sample also lost a large amount of data through the usage of quality assurance questionnaires and inconsistent responding measures. While a large proportion of participants were excluded from the data, confidence in the validity of our collected data is increased through our use of quality assurance questions and a measure of response inconsistency (e.g., Meade & Craig, 2012). Another limitation was the use of cross-sectional data such that the results may not be capturing the true direction of the relationship within the models and cannot speak to causality. Further related to our data being cross-sectional and not longitudinal, we may not be fully capturing capability for suicide as it was immediately prior to their last suicide attempt as it may have changed over time (e.g., therapeutic intervention, lifestyle change). One method that may help overcome this limitation would be the use of ecological momentary assessments which have been successful in capturing the fluctuations of a construct over time and in the context of other factors (e.g., mood and substance use; Shiffman, 2009).

Gay and bisexual men are at particular risk for increased suicidal thoughts and behaviors (e.g., Wang et al., 2014), possibly relating to societal expectations of gender roles and masculinity (e.g., Herek & McLemore, 2013). To this end, the current study aimed to offer a better understanding of risks associated with suicidal thoughts and

behaviors for gay and bisexual men. A primary goal for the current study was to identify the interplay of various factors (e.g., family rejection, internalized homophobia, ITS constructs) in predicting suicidal thoughts and behaviors within this at-risk population in order to better inform clinical interventions in addressing this mental health concern. While the current study is not without limitations, the study models offer a foundation for identifying casual factors for suicidal thoughts and behaviors among gay and bisexual men, thereby informing future research and offering groundwork for interventions to address and alleviate potential causal factors (e.g., internalized homophobia).

APPENDIX A – USM IRB Approval Letter

Office of
Research Integrity

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

118 COLLEGE DRIVE #5125 • HATTIESBURG, MS | 601.266.6576 | USM.EDU/ORI

NOTICE OF INSTITUTIONAL REVIEW BOARD ACTION

The project below has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy to ensure:

- The risks to subjects are minimized and reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI via the Incident template on Cayuse IRB.
- The period of approval is twelve months. An application for renewal must be submitted for projects exceeding twelve months.
- FACE-TO-FACE DATA COLLECTION WILL NOT COMMENCE UNTIL USM'S IRB MODIFIES THE DIRECTIVE TO HALT NON-ESSENTIAL (NO DIRECT BENEFIT TO PARTICIPANTS) RESEARCH.

PROTOCOL NUMBER: IRB-20-267
PROJECT TITLE: Internalizing and Externalizing Correlates among Sexual Minorities
SCHOOL/PROGRAM: School of Psychology, Psychology
RESEARCHER(S): Brian Bulla, Joye Anestis

IRB COMMITTEE ACTION: Approved
CATEGORY: Expedited
7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

PERIOD OF APPROVAL: June 5, 2020

Donald Sacco Jr.

Donald Sacco, Ph.D.
Institutional Review Board Chairperson

APPENDIX B – Consent Form (Amazon's mTurk)

ORI | Office of Research Integrity

INSTITUTIONAL REVIEW BOARD

STANDARD (ONLINE) INFORMED CONSENT

STANDARD (ONLINE) INFORMED CONSENT PROCEDURES

The Project Information and Research Description sections of this form should be completed by the Principal Investigator before submitting this form for IRB approval. Use what is given in the research description and consent sections below when constructing research instrument online.

Last Edited July 20th, 2017

Today's date:		
PROJECT INFORMATION		
Project Title: Internalizing and Externalizing Correlates among Sexual Minorities		
Principal Investigator: Brian Bulla	Phone: 336.964.0796	Email: brian.bulla@usm.edu
College: University of Southern Mississippi	Department: Psychology	

RESEARCH DESCRIPTION

1. **Purpose**:

The purpose of this study is to garner an understanding of the cognitive, behavioral, and emotional correlates among gay and bisexual men.

2. **Description of Study:**

You are being invited to take part in a research study about cognitive, behavioral, and emotional correlates among gay and bisexual men. Participation in this study is limited to gay and bisexual men. If you volunteer to take part in this study, you will be one of about 500 people to do so.

Participation in this study will take place via online interaction. This study will take approximately 60 minutes to complete. During the course of this study, you will be asked to complete a series of questions that ask about aspects of your life history, social experiences, personality, and behavior. Questionnaires will also include quality assurance checks that will ensure participants are answering questions thoughtfully and carefully. Failure to pass these quality assurance checks will result in forfeiture of incentives for participation..

3. **Benefits:**

You will receive no direct benefit from your participation in this study other than a better understanding of behavioral science research and knowledge about how such research is conducted. You will received $4 for completion of the survey and passing the quality assurance checks.

4. **Risks:**

Participation in this study involves no risks beyond those that you may experience in your everyday life. However, you may find some of the questions we ask (or some procedures we ask you to do) to be stressful or embarrassing. You may choose not to answer any questions that you find uncomfortable without penalty. You can also decide to end your participation in the study at any time for any reason. You may contact the principal investigator, Brian Bulla (brian.bulla@usm.edu), or the faculty supervisor, Dr. Joye Anestis (joye.anestis@usm.edu), via email if you have any questions.

5. **Confidentiality:**

Your information will be combined with information from other people taking part in the study. When we write up the study to share it with other researchers, we will write about the combined information. You will not be identified in any published or presented materials. This study is anonymous. That means that no one, not even members of the research team, will know that the information you gave came from you.

We will make every effort to prevent anyone who is not on the research team from knowing that you gave us information or what that information is. The information that you give us will only be identified with a code number. That code number will not appear on this consent form. Therefore, there will be no way to link this form to your information making your participation totally anonymous. While we will make every effort to keep your data secure, any time data are transmitted over the Internet, the possibility of interception is theoretically possible. However, as we noted above, there is no way that they will be able to know that the data was yours since we ensure that your name is never written on any data form. We also ensure that your data can never be traced back to your name. As such, no matter who looks at your data, no one will ever be able to know that it was yours. As such, we want you to feel completely comfortable answering all questions as honestly as possible.

6. **Alternative Procedures:**

If you decide to take part in the study, it should be because you really want to volunteer. There will be no penalty and you will not lose any benefits or rights you would normally have if you choose not to volunteer. No one on the research team will behave any differently toward you if you choose not to participate in the study. You can stop at any time during the study and still keep the benefits and rights you had before volunteering. Additionally, if you feel uncomfortable answering any questions, you are certainly in your rights to refuse to answer any question

7. **Participant's Assurance:**

This project has been reviewed by the Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations.

Any questions or concerns about rights as a research participant should be directed to the Chair of the IRB at 601-266-5997. Participation in this project is completely voluntary, and participants may withdraw from this study at any time without penalty, prejudice, or loss of benefits.

Any questions about the research should be directed to the Principal Investigator using the contact information provided in Project Information Section above.

CONSENT TO PARTICIPATE IN RESEARCH

Consent is hereby given to participate in this research project. All procedures and/or investigations to be followed and their purpose, including any experimental procedures, were explained to me. Information was given about all benefits, risks, inconveniences, or discomforts that might be expected.

The opportunity to ask questions regarding the research and procedures was given. Participation in the project is completely voluntary, and participants may withdraw at any time without penalty, prejudice, or loss of benefits. Unless described above and agreed to by the participant, all personal information is strictly confidential, and no names will be disclosed. Any new information that develops during the project will be provided if that information may affect the willingness to continue participation in the project.

Questions concerning the research, at any time during or after the project, should be directed to the Principal Investigator with the contact information provided above. This project and this consent form have been reviewed by the Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research participant should be directed to the Chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5116, Hattiesburg, MS

39406-0001, 601-266-5997.

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Check this box if you consent to this study, and then click "Continue." (Clicking "Continue" will not allow you to advance to the study, unless you have checked the box indicating your consent.)

If you do not wish to consent to this study, please close your browser window at this time.

ORI | Office of Research Integrity

INSTITUTIONAL REVIEW BOARD

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3. **Benefits:**

You will receive no direct benefit from your participation in this study other than a better understanding of behavioral science research and knowledge about how such research is conducted. If you choose to do so, you may opt in (provide valid email address) to be entered into a drawing for one of twenty-five $10 gift cards upon completion of the survey and passing the quality assurance checks.

4. **Risks:**

Participation in this study involves no risks beyond those that you may experience in your everyday life. However, you may find some of the questions we ask (or some procedures we ask you to do) to be stressful or embarrassing. You may choose not to answer any questions that you find uncomfortable without penalty. You can also decide to end your participation in the study at any time for any reason. You may contact the principal investigator, Brian Bulla (brian.bulla@usm.edu), or the faculty supervisor, Dr. Joye Anestis (joye.anestis@usm.edu), via email if you have any questions.

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We will make every effort to prevent anyone who is not on the research team from knowing that you gave us information or what that information is. You will be asked to provide an email address in order to be entered into the $10 gift card drawing. Your email address will appear in the database initially, but will be separated from other data in order to prevent identifying material being linked to your data. The information that you give us will only be identified with a code number. That code number will not appear on this consent form. Therefore, there will be no way to link this form to your information making your participation totally anonymous. While we will make every effort to keep your data secure, any time data are transmitted over the Internet, the possibility of interception is theoretically possible. However, as we noted above, there is no way that they will be able to know that the data was yours since we ensure that your name is never written on any data form. We also ensure that your data can never be traced back to your name. As such, no matter who looks at your data, no one will ever be able to know that it was yours. As such, we want you to feel completely comfortable answering all questions as honestly as possible.

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If you do not wish to consent to this study, please close your browser window at this time.

Debriefing Form

Thanks so much for your help today. Now that we are done with the study, I'd like to tell you a little bit more about what we were looking for. The current study is about how life experiences, thoughts, and emotions influence suicidal thoughts and behaviors.

In general, we expected that rejection from one's primary caregiver because one's sexual minority status would result in greater negative perceptions of one's self, greater social isolation, and more negative emotional experiences. Further, we expected that these factors would impact one's suicidal thoughts and behaviors.

During the study, you were asked to answer a number of questions that may have been distressing and difficult to answer. You were also asked to share information regarding any prior experiences with suicide. We understand that this is a personal and sensitive topic to discuss, and we want to reassure you that the information you have provided is confidential and no identifying information is linked to your responses. If you are experiencing distress due to involvement in the current study, we encourage you to reach out to the National Suicide Hotline (1.800.273.8255). Further resources can be obtained from The Trevor Project, which offers crisis intervention and suicide prevention phone service available 24/7 (1.866.488.7386, https://www.thetrevorproject.org).

Once again, thanks so much for your participation today. Your involvement is greatly appreciated. If you have any questions, please email the investigator in charge of this study, Brian Bulla (brian.bulla@usm.edu), or his faculty advisor, Joye Anestis, Ph.D. (joye.anestis@usm.edu).

Additional related research:

Cramer, R. J., Burks, A. C., Stroud, C. H., Bryson, C. N., & Graham, J. (2015). A moderated mediation analysis of suicide proneness among lesbian, gay, and bisexual community members. *Journal of Social and Clinical Psychology*, *34*(7), 622–641. doi: 10.1521/jscp.2015.34.7.622

Hill, R. M., & Pettit, J. W. (2012). Suicidal ideation and sexual orientation in college students: The roles of perceived burdensomeness, thwarted belongingness, and perceived rejection due to sexual orientation. *Suicide and Life-Threatening Behavior*, *42*(5), 567–579. doi: 10.1111/j.1943-278X.2012.00113.x

Puckett, J. A., Woodward, E. N., Mereish, E. H., & Pantalone, D. W. (2015). Parental rejection following sexual orientation disclosure: Impact on internalized homophobia, social support, and mental health. *LGBT Health*, *2*(3), 265–269. doi: 10.1089/lgbt.2013.0024

APPENDIX E – Recruitment Advertisement

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