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## Thwarted Belongingness and Burdensomeness as Moderators Between Entrapment and Suicide Ideation in College Students

Tupelo Witte

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**Thwarted Belongingness and Burdensomeness as Moderators Between Entrapment and  
Suicide Ideation in College Students**

by

Tupelo Witte

Presented to the Faculty of the

Graduate School of Clinical Psychology

George Fox University in partial fulfillment of the requirements for the degree of

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Newberg, Oregon

**Approval Page**

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**Suicide Ideation in College Students**

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Tupelo Witte

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**Committee Members**

Dr. William Buhrow, PsyD, Committee Chair

Dr. Celeste Jones, PsyD, Member

Dr. Luann Foster, PsyD, Member

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### **Abstract**

College students are amid their search for identity development, desire to meet social expectations, and are juggling stressors that often lead to mental health concerns including suicidality. The integrated motivational-volitional model of suicidal behavior has established a three-phase framework to describe the process of suicidality. Life factors and feelings of defeat lead to entrapment and suicidal ideation followed by suicidal ideation and behaviors, as influenced or intervened by moderating factors. This study used data from the American College Health Association National College Health Assessment III to further investigate the integrated motivational-volitional model and specifically the motivational phase and relationship between entrapment and suicidal ideation in college students. Stepwise linear and hierarchical regressions were conducted using the American College Health Association National College Health Assessment III data from Spring 2021, finding entrapment to predict 15% of the variance in suicidal ideation in this population. Motivational moderators including thwarted belongingness and burdensomeness were not found to be significant moderators between entrapment and suicidal ideation. However, thwarted belongingness accounted for an additional 4% of the variance in the model and burdensomeness accounted for an additional 8% of the variance in the model. This study further confirmed the importance of burdensomeness and belongingness as predictors of suicidality overall. Further research will be helpful to understand the accuracy of the motivational model of the integrated motivational-volitional model and entrapment's role in suicidality.

*Keywords:* suicidality, suicidal ideation, burdensomeness, belongingness, entrapment, college students, risk factors for suicidality, young adult, suicidal thoughts, and behaviors

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## **Thwarted Belongingness and Burdensomeness as Moderators Between Entrapment and Suicide Ideation in College Students**

### **Chapter 1**

The life of a college student often involves excitement, change, identity formation, and purposeful discovery. Alongside transformative memories and experiences, added stressors also occur such as identity development (e.g., need for belonging, differentiation from family), academic and social expectations of college, and in recent years, stressors associated with a global pandemic. In combination with other predisposing factors and contextual variables, these stressors can play a role in the development of mental health concerns such as depression, anxiety, and suicidality (Association for University and College Counseling Center Directions Survey, 2021). In fact, the Centers for Disease Control (2020) identified suicide as the third leading cause of death in young adults in 2020, further demonstrating the importance of continued research into the predictive factors of young adult suicide. Next, the 2021 Association for University and College Counseling Center Directions Survey of over 300 college counseling centers, 32% of college counseling centers reported an increase in clinical service demands in comparison to the year prior. Anxiety was the most common concern, along with stress, depression, trauma, and suicidal thoughts. Up to 11% of students served in college counseling centers reported suicidal thoughts. Another national multi-site study (American College Health Association National College Health Assessment III [ACHA-NCHA III]) surveyed psychosocial factors in college students in Spring of 2022, including a broad sample of college students (not only those involved in college counseling center services). The resulting dataset identified 27.6% of respondents as screening positive for suicidality (American College Health Association

[ACHA], 2022). With almost one third of college students experiencing suicidality, research regarding different models of suicide and implications for prevention and interventions are vital. As a result, the purpose of this study was to explore the relationship of entrapment, thwarted belongingness and burdensomeness with suicidal ideation among college students.

### **The Integrated Motivational Volitional Model of Suicide**

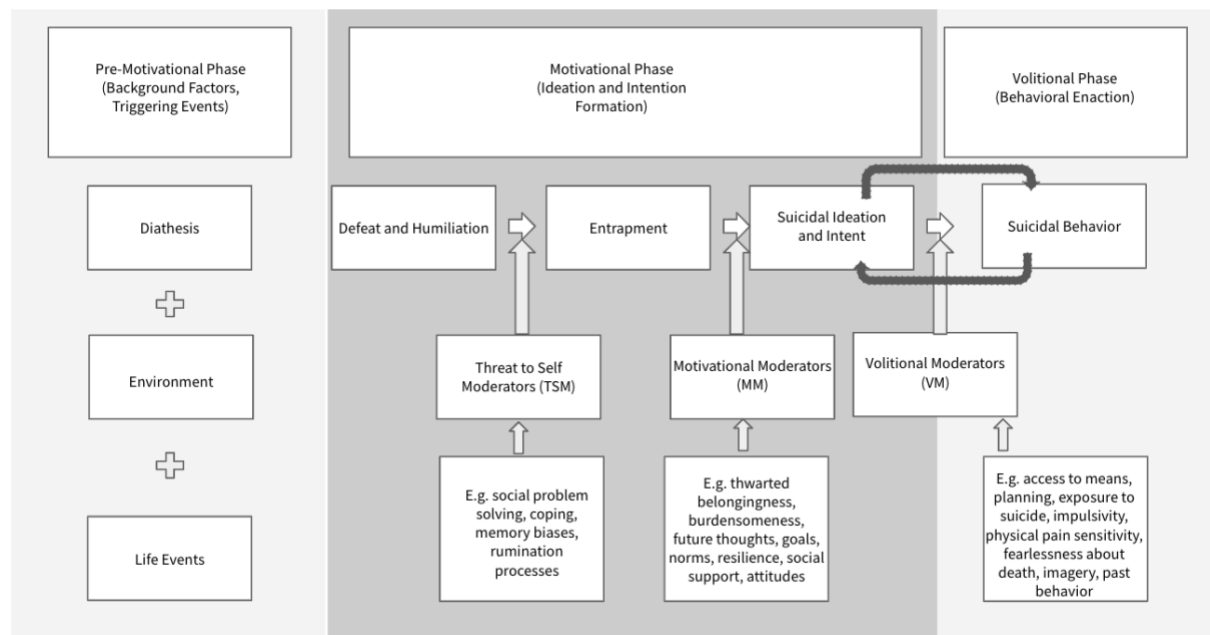
Suicide theorists have explored pathways to suicidality, developing a number of models to explain what predicts suicidality. For instance, perceived burdensomeness, thwarted belongingness, and hopelessness all appear to be strongly connected to suicidality in college students (Bagge et al., 2014). The integrated motivational volitional (IMV) model of suicidal behaviors is one such framework, developed to explain the comprehensive network of factors and pathways to suicidality. The IMV model has three phases—pre-motivational, motivational, and volitional phases—breaking down the precipitants to ideation and behaviors. The present study focuses primarily on the motivational phase, in which the feeling of entrapment leads to suicidality. Entrapment refers to the subjective experience of being trapped in one's circumstances.

This model also posits intervening and influencing factors which decrease or increase someone's risk of suicide, such as thwarted belongingness and burdensomeness. O'Connor (2011) originally described the IMV model, which has since been updated (O'Connor et al., 2016; O'Connor & Kirtley, 2018). Developed concurrently with other second-generation theories of suicide such as the interpersonal theory of suicide (Joiner, 2005) and the three-step theory (3ST; Klonsky & May, 2015), the IMV model differentiates between suicidal ideation and behavior in a manner that previous theories have not. The IMV model builds on prior work from four influential perspectives, including the diathesis–stress model (Schotte & Clum, 1987),

theory of planned behaviour (Ajzen, 2012), Williams' cry-of-pain theory of suicide (Williams, 2001), and the differential activation hypothesis (Teasdale & Dent, 1987) to explore predictive factors and patterns that lead to suicidality. For instance, Dhingra et al. (2016) used structural equation modelling to test the fit of the IMV model and found that it explained 79% of the variance in defeat, 83% of the variance in entrapment, 27% of the variance in suicide attempts, and 61% of the variance in suicidal ideation. Previous studies have set the framework for defining and differentiating the three phases of the IMV model, along with testing the model for validity and reliability. The three different phases of the development of suicidality according to the IMV model, including the pre-motivational phase, the motivational phase, and the volitional phase, are further described below (see Figure 1).

**Figure 1**

*The IMV Model of Suicidal Behavior*



***Pre-Motivational Phase***

The first phase of the IMV model includes background factors and triggering events of suicide, organized into three domains: diathesis (e.g., biological, genetic, cognitive vulnerability, individual differences), environment (e.g., socioeconomic inequality, rapid societal changes, economic recessions), and life events (e.g., negative life events, early life adversity; O'Connor & Kirtley, 2018). For instance, two major factors for increased suicide risk within the premotivational phase are high societal expectations and sensitivity to negative environmental signals. When someone experiences these high societal expectations and is faced with an interpersonal crisis, these dynamics predict feelings of defeat and humiliation, which can lead to further factors in the motivational phase.

***Motivational Phase***

The motivational phase, stemming from Williams' (2001) cry-of-pain hypothesis, describes the progression through three subphases: feelings of defeat and humiliation, feelings of entrapment, and eventual suicidal ideation (O'Connor & Kirtley, 2018). Various types of moderators determine how an individual progresses through the motivational phase.

**Threat-to-Self Moderators.** Following feelings of defeat and humiliation, threat-to-self moderators influence whether one moves into feelings of entrapment. Threat-to-self moderators include an individual's ability to problem solve socially, rumination tendencies, and their memory biases. An inability to effectively problem solve or cope is expected to result in entrapment. Gilbert and Allan (1998) associated defeat and entrapment (components of the social rank theory) with depression, creating multiple scales measuring internal and external entrapment. Entrapment can be defined as being trapped in a situation with an inability to escape

from the stress, or feeling unable to cope from the challenge internally or externally (Stenzel et al., 2020).

**Motivational Moderators.** Once a person is experiencing entrapment, another set of moderating factors influence whether or not they develop suicidal ideation (O'Connor & Kirtley, 2018). Motivational moderators include thwarted belongingness, burdensomeness, future thoughts, goals, norms, resilience, social support, and attitudes. For instance, belongingness, connectedness, and an ability to have positive future thinking can decrease the likelihood of progression to suicidal ideation. Conversely, burdensomeness to others, a lack of social support (thwarted belongingness), and diminished resilience can increase the likelihood one will advance to suicidal ideation. This study will focus particularly on the motivational moderators of thwarted belongingness and burdensomeness.

***Thwarted Belongingness.*** Research on college students has indicated that belongingness, with family, peers, and academic institutions, plays a significant role in suicidal ideation (Ploskonka & Servaty-Seib, 2015). Thwarted belongingness is a well-known construct within the interpersonal theory of suicide (Van Orden et al., 2010; Van Orden et al., 2012), defined as involving loneliness and “the absence of reciprocal care” (Chu et al., 2017, p. 3). Studies regarding thwarted belongingness have recognized disconnection from others and absence of social support as predictors of grief, sometimes resulting in suicidal thoughts or behaviors (Gautam & Nagle, 2016). The relationship between thwarted belongingness and suicide ideation were assessed through the Interpersonal Needs Questionnaire with young adults, finding a positive relationship between thwarted belongingness and suicidal ideation (Van Orden et al., 2012).

***Burdensomeness.*** Burdensomeness is another important motivational moderator hypothesized by the IMV model to increase the likelihood of suicidal ideation (O'Connor & Kirtley, 2018). Whether or not one is truly considered a burden is not as relevant as whether one perceives themselves as burdensome (Gautam & Nagle, 2016). Burdensomeness is also an established construct within the interpersonal theory of suicide, referring to self-hate and self-sacrificial perceptions related to feelings that one's death would be more beneficial than continuing to live (Chu et al., 2017).

***Suicidal ideation and intent.*** Within the motivational phase, entrapment leads to suicidal ideation and intent. Suicidal ideation and intent are separated from suicidal behaviors that are discussed in the volitional phase, a characteristic of this and other second-generation theories of suicide. The American Psychological Association (APA) defines suicidal ideation as "thoughts or preoccupation with killing oneself" (APA, 2022, "Suicide is a Serious Public Health Problem" section). It is estimated that 12.3 million adults in the US experienced serious suicidal ideation in 2021 (Centers for Disease Control and Prevention, 2022). Mortier et al. (2018) completed a meta-analysis and found that about one in four college students experience suicidal ideation.

### ***Volitional Phase***

Once a person is experiencing suicidal ideation, volitional moderators determine whether or not they will develop suicidal behaviors (O'Connor & Kirtley, 2018). Volitional moderators include access to means, acquired capability, physical pain tolerance, past suicidal behaviors, exposures to suicide, or suicidal behaviors in the past, all of which are theorized to increase one's likelihood of progression to suicidal behavior.

### ***IMV Model in College Students***

Little research has explored the application of the IMV model with college students specifically, a population with elevated suicide risk related to the factors outlined above. Siddaway et al. (2015) used meta-analysis up through August of 2013 to summarize the results of 40 studies exploring perceptions of defeat and entrapment, and how these may lead to suicidal ideation. Results indicated there was a large effect size, and defeat and entrapment were correlated with psychiatric disorders. Since then, a few authors have continued to explore entrapment and its relationship to suicidal ideation among other variables that impact the relationship, finding small to moderate relationships between entrapment and suicidal ideation (Tucker et al., 2016; Taylor et al., 2011).

Given the identity development challenges occurring in the college population (e.g., need for belonging, differentiation from family), as well as elevated academic and social expectations, and recent societal stressors, the current study seeks to explore specifically how social motivational moderators (thwarted belongingness and burdensomeness) are currently moderating the relationship between entrapment and suicidal ideation in college students. The aim of the current study is to explore the application of the motivational phase of the IMV model in college students, exploring the predictors and moderators of suicidality using a multi-site national dataset of college students.

### **Hypotheses**

1. Entrapment will be positively related to suicidal ideation in college students.
2. Thwarted belongingness will moderate the relationship between entrapment and suicidal ideation in college students.
3. Burdensomeness will moderate the relationship between entrapment and suicidal ideation in college students.

## **Chapter 2: Methods**

The current study used archival data from the ACHA-NCHA III (ACHA, 2021). The survey is designed to evaluate college students across the United States regarding overall physical, mental, and emotional health and wellness, including questions measuring overall well-being, resilience, and suicidality. The ACHA-NCHA III data is collected nationally twice per year (fall and spring). The data from this survey was made available through a request to the American College Health Association. The mean response proportion was 13%. George Fox University Human Subjects Review Committee approved the use of this data.

### **Participants**

The current study will use the Spring 2021 data, which included the responses of 96,489 college students from 137 university institutions. We used a subset of 65,355 participants ages 18–24 years ( $M = 20.50$ ,  $SD = 1.73$ ) who completed all of the items of interest to the present study (see Table 1 for demographics).



**Table 1***Sample Demographics by Termination Status*

Variable	Category	Percentage
Gender	Agender	0.2%
	Genderfluid	0.4%
	Genderqueer	0.4%
	Intersex	0.0%
	Man	27.5%
	Non-binary	2.0%
	Trans man	0.3%
	Trans woman	0.1%
	Woman	68.6%
	Identity not listed	0.4%
Ethnicity	European American	52.5%
	Hispanic/Latino	13.6%
	Multiracial	12.9%
	Asian American	15.9%
	Middle Eastern/North African	1.0%
	Black/African American	2.9%
	American Indian/Alaska Native	0.4%
	Native Hawaiian/Pacific Islander	0.2%
	Identity not listed	0.6%
Sexual Orientation	Asexual	1.1%
	Bisexual	12.3%
	Gay	2.0%
	Lesbian	2.0%
	Pansexual	2.2%
	Queer	2.0%
	Questioning	3.3%
	Straight	74.6%
	Identity not listed	0.5%

***ACHA-NCHA III***

The ACHA-National College Health Assessment (ACHA-NCHA) is a national research survey organized by the American College Health Association (ACHA) who described that the survey is used:

to assist college health service providers, health educators, counselors, and administrators in collecting data about their students' habits and behaviors on the most prevalent health topics. The ACHA-NCHA now provides the largest known comprehensive data set on the health of college students, providing the college health and higher education fields with a vast spectrum of information on student health. (ACHA, 2021, p. 1)

The NCHA-ACHA III was designed to investigate the health and wellness of college students through questions regarding sexual health, exercise, nutrition and weight, and campus involvement and belongingness. The assessment simultaneously evaluates their needs and the imminent risks they may be experiencing, including sexual abuse and sexual health, alcohol use, tobacco use, or other drug use, suicidality, and how safe they feel on their campus. The 200-question confidential survey generally takes around 30 min to complete and involves both dichotomous and Likert-type response scales. The NCHA-ACHA III has been tested for reliability and validity through the comparison of its questions to other existing questionnaires.

**Measures*****Suicidal Behaviors Questionnaire, Revised***

The Suicidal Behaviors Questionnaire (SBQ-R) was originally a 34-item self-report survey developed to assess frequency and severity of suicidal behaviors, and prior history of suicide attempts (Linehan, 1981). This survey has also been developed into a four-item version (Linehan & Nielsen, 1981; Linehan et al., 1983). Osman et al. (2001) found scores on the SBQ-R

within clinical and non-clinical samples to be higher for suicidal subgroups than nonsuicidal subgroups. A logical regression analysis demonstrated the ability of the SBQ-R to predict suicide-related behaviors (Osman et al., 2001). A Cronbach's alpha reliability estimate was calculated (see Table 2).

### ***Selected ACHA-NCHA III Items for Entrapment***

In order to measure entrapment, items were drawn from the ACHA-NCHA III that approximated entrapment using the Stenzel et al., (2020) definition which describes entrapment as the “feeling of being entrapped in a situation with no possibility to escape from or to cope with internal and/or external stressors” (p. 2). Two items were drawn from the Connor–Davidson Resilience Scale (Vaishnavi et al., 2007). “I am able to adapt when changes occur,” and “I tend to bounce back after illness, injury, or other hardships,” and three items was drawn from the Diener Flourishing Scale- Psychological Well-Being dimension (Diener et al., 2010), “I’m optimistic about my future,” “I am competent and capable in the activities that are important to me,” and “I am engaged and interested in my daily activities.” These selected items were then reverse scored. Because the Connor–Davidson Resilience Scale items are measured on a 4-point Likert scale, and the Diener Flourishing Scale- Psychological Well-Being dimension items are measured on a 7-point Likert scale, item scores were then transformed into *z*-scores. Finally, *z*-scores were summed to create an entrapment estimate. A Cronbach's alpha reliability estimate was calculated (see Table 2).

### ***Selected ACHA-NCHA III Items for Thwarted Belongingness***

Thwarted belongingness was defined using the Chu et al. (2017) definition, “loneliness and the absence of reciprocal care” (p. 3). Within the ACHA-NCHA III dataset, responses from the UCLA Three-Item Loneliness Scale (Russell et al., 1978) were used to approximate thwarted

belongingness. These items were, “How often do you feel you lack companionship?,” “How often do you feel left out?,” and “How often do you feel isolated from others?” These items were rated on a 3-point Likert scale (*hardly ever*, *some of the time*, and *often*). A Cronbach’s alpha reliability estimate will be calculated (see Table 2).

### ***Selected ACHA-NCHA III Items for Burdensomeness***

Burdensomeness was defined using the Chu et al. (2017) definition for perceived burdensomeness which says, “particularly the incorrect mental calculation that individuals make regarding their death being worth more than their life to others” (p. 3). Within the ACHA-NCHA III dataset, two items from the Diener Flourishing Scale- Psychological Well-Being dimension (2010) were used, “I lead a purposeful and meaningful life,” and “I am a good person and live a good life.” These items were rated on a 6-point Likert scale from *strongly disagree* to *strongly agree*. Finally, one item from Kessler 6 - Screening for Serious Mental Illness was used (Kessler et al., 2002), “During the past 30 days, how often did you feel worthless?,” which was rated on a 5-point Likert scale from *none of the time* to *all of the time*. Because of the differences in rating scales for these items, item scores were transformed into z-scores then summed to create a burdensomeness estimate. A Cronbach’s alpha reliability estimate was calculated (see Table 2).

### Chapter 3: Results

#### Descriptives and Normality

The relationship between entrapment and suicidal ideation was explored using correlational analysis. Thwarted belongingness and burdensomeness were tested as moderators using linear regression analysis with moderation effects. All analyses were conducted using RStudio and JASP (R Core Team, 2022; JASP Team, 2023). Descriptives for study variables are provided in Table 2. All raw scores were converted into  $z$ -scores.

**Table 2**

*Descriptive Statistics for Raw Scores*

	<i>M</i>	<i>SD</i>	Min	Max	$\alpha$
Suicidal ideation	1.67	0.92	1.00	5.75	0.85
Entrapment	2.47	0.89	1.00	6.20	0.78
Thwarted belongingness	1.91	0.62	1.00	3.00	0.81
Burdensomeness	2.45	1.03	1.00	6.33	0.70

*Note.* Coefficient alpha reported is standardized coefficient alpha.

#### Hypothesis 1: Entrapment Predicts Suicidal Ideation

Linear regression was conducted to determine the accuracy with which entrapment predicted suicidal ideation. Regression results indicated that the overall model significantly predicted suicidal ideation,  $F(1, 65353) = 11489.85, p < .001, R^2 = .15$ . Entrapment was a statistically significant predictor of suicidal ideation,  $b = .40, 95\% \text{ CI} = [0.40, 0.41], p < .001$ , accounting for 15% of the variance of suicidal ideation in college students.

### Hypothesis 2: Thwarted Belongingness as Moderator

Hierarchical linear regression was conducted to determine the accuracy with which thwarted belongingness moderated the relationship between entrapment and suicidal ideation. The first model consisted of entrapment as an isolated predictor and reflects the analysis of Hypothesis 1. The second model, consisting of entrapment and thwarted belongingness as predictors, explained 4% more of the variance in suicidal ideation,  $F(1, 65352) = 7837.03, p < .001, R^2 = .19, F\Delta = 3558.72, R^2\Delta = .04, p < .001$ . The third model, in which the interaction term between entrapment and thwarted belongingness was added as a predictor, explained 1% more of the variance in suicidal ideation,  $F(1, 65351) = 5448.06, p < .001, R^2 = .20, F\Delta = 540.695, R^2\Delta = .01, p < .001$ . Thwarted belongingness did not moderate the relationship between entrapment and suicidal ideation, but it was found to have additional predictive utility, accounting for 4% more of the variance than entrapment alone.

**Table 3**

*Coefficients for Thwarted Belongingness as Moderator*

Predictor	$\beta$	95% CI ( <i>LL, UL</i> )	<i>t</i>	Partial <i>r</i>
Entrapment	.28	0.28, 0.29	73.12***	.28
Thwarted belongingness	.23	0.22, 0.23	59.61***	.23
Interaction	.08	0.07, 0.08	23.25***	.09

\* $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

### Hypothesis 3: Burdensomeness as Moderator

Hierarchical linear regression was conducted to determine the accuracy with which burdensomeness moderated the relationship between entrapment and suicidal ideation. The first model consisted of entrapment as an isolated predictor and reflects the analysis of Hypothesis 1. The second model, consisting of entrapment and burdensomeness as predictor, explained 8% more of the variance in suicidal ideation,  $F(1, 65352) = 9788.26, p < .001, R^2 = .23, F\Delta = 6877.67, R^2\Delta = .08, p < .001$ . The third model, in which the interaction term between entrapment and burdensomeness was added as a predictor, explained < 1% more of the variance in suicidal ideation,  $F(1, 65351) = 6637.28, p < .001, R^2 = .23, F\Delta = 258.26, R^2\Delta = .00, p < .001$ . Therefore, burdensomeness did not moderate the relationship between entrapment and suicidal ideation, but it was found to have additional predictive utility, accounting for 8% more of the variance than entrapment alone.

**Table 4**

*Coefficients for Burdensomeness as Moderator*

Predictor	$\beta$	95% CI ( <i>LL, UL</i> )	<i>t</i>	Partial <i>r</i>
Entrapment	.05	0.04, 0.06	9.04***	.04
Burdensomeness	0.42	0.41, 0.43	77.67***	.29
Interaction	0.06	0.03, 0.04	16.07***	.06

\* $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

**Exploratory Analysis**

With thwarted belongingness and burdensomeness having predictive properties, exploratory analysis was conducted to assess the variance when they were simultaneously added to the model. A two-step hierarchical regression was conducted, with the first step being entrapment by itself and the second step adding in thwarted belongingness and burdensomeness to the regression (alongside entrapment). When thwarted belongingness and burdensomeness were added in the second step, they accounted for 10% more of the variance,  $F(1, 65351) = 7373.82, p < .001, R^2 = .25, F\Delta = 4521.12, R^2\Delta = 0.10, p < .001$ . The three variables together predicted a total of 25% of the variance.



## **Chapter 4: Discussion**

Suicidality exists among college students, continuing to be a point of concern within colleges and college counseling centers. There are a variety of models offered to support greater understanding of the roots of suicidality, informing how to go about intervention, prevention, and postvention. The IMV model specifically breaks down suicidality into three separate phases, with the initial revolving around biology, stressful events, and diathesis. The second phase (specific focus of this study) includes defeat leading to entrapment, and entrapment leading to suicidal ideation, with motivational moderators supporting or hindering the relationship between entrapment and suicidal ideation. The third phase includes the progression from suicidal ideation to suicidal behaviors, including volitional moderators that hurt or hinder the relationship between ideation and behaviors. The purpose of this study was to explore the application of the motivational phase of the IMV model in a national college student population, specifically examining the relationship between entrapment and suicidal ideation. The second and third hypotheses explored thwarted belongingness and burdensomeness as moderators of the relationship between entrapment and suicidality.

### **Entrapment as a Predictor of Suicide**

Concurrent with the IMV model, this study revealed that entrapment significantly predicted suicidal ideation in the college students studied. Entrapment accounted for 15% of the variance in the current model which aligns with the findings of Tucker et al. (2016) who found small-moderate relationships between entrapment and suicidal ideation, and Taylor et al. (2011) who found a moderate correlation between entrapment to suicidal ideation. However, others have questioned the role of entrapment and its impact on suicidal ideation. O'Connor & Portzky

(2018) described the relationship between suicidal ideation and entrapment as transdiagnostic and were unable to find any direct evidence of the relationship between suicidal ideation and entrapment. They also questioned whether entrapment is a culturally sensitive construct and its relevance among gender binaries. So, while the IMV model offers strong implications for entrapment, more research regarding its role and how it is defined would be helpful to gain a greater understanding of its relationship to suicidal ideation.

Entrapment as a variable of suicidality appears to be a direct way to describe an individual's experience with having no other option but to consider how they may go about harming or killing themselves. However, the pure definition of entrapment and other variables of suicidality have often been confused or used interchangeably, such as with defeat and hopelessness (Oakey-Frost et al., 2022). With the current state of the IMV model, entrapment seems to be more difficult to define and measure, leading to questioning of what its purpose is compared to defeat and humiliation, or why it belongs as a predictor, but hopelessness does not. When considering the IMV model, perhaps entrapment's role holds more significance as a moderator of other relationships to suicidal ideation than it does as a direct predictor. Similarly, the process of defeat leading to entrapment may be better described as leading to hopelessness, or defeat may more clearly lead to other variables like burdensomeness or belongingness. By breaking down these phases of the IMV model and solidifying the order of variables and direct predictors, prevention and intervention can lean into the significant concepts and push back from moving into the volitional phase of the model.

While thwarted belongingness and burdensomeness did not practically moderate the relationship between entrapment and suicidal ideation in this sample (it was only a 1% difference), they each accounted for 4% and 8% more of the variance (respectively) in suicidal

ideation, thus having more predictive properties than entrapment. When thwarted belongingness was added to the model, 19% of the variance was accounted for. When burdensomeness was added to the model, 23% of the variance was accounted for. These findings agreed with prior research in college and in-patient psychiatric populations, finding that burdensomeness and thwarted belongingness are significant predictors and of suicidal ideation when other variables are involved (Lockman & Servaty-Seib, 2016; Forkmann & Teismann, 2017; Kyron et al., 2019). Results of this study found thwarted belongingness and burdensomeness did play a role in suicidal ideation, further emphasizing the need for social support and connection in college students. Since thwarted belongingness and burdensomeness showed to have predictive properties in regard to suicidal ideation, of suicidal ideation, this study may have further confirmed aspects of the interpersonal theory (more so than the IMV model), which says thwarted belongingness and perceived burdensomeness are predictive of suicidal ideation (Joiner, 2005). Further research could assess this by considering thwarted belongingness and burdensomeness as stand-alone predictors, removing entrapment from the model altogether. By having awareness of the impact of these on college students, universities and counseling centers can target their intervention and prevention efforts with interventions focusing on social connection and engagement, as well as a better understanding of what theories are most applicable to college populations.

### **Implications**

Given the impacts of thwarted belongingness and burdensomeness, these findings suggest that college students involved in community and social supports may be less likely to engage in suicidal ideation and potential eventual behaviors. These findings underscore the importance of embodied student life opportunities, such as ensuring that structured social opportunities and

groups are available for students to become involved in. Maintaining healthy student organizations, affinity groups, intramural sports, and other student life programs may be an important protective factor, bolstering belongingness and connecting an individual to a community to protect against burdensomeness. In regard to entrapment, findings support the importance of counseling center availability with a consistent staff, a university crisis hotline and student wellness opportunities as contributors to student emotional and physical safety. Opportunities for confidential counseling on campus may provide a unique opportunity for students to communicate and process what stressors are taking place, helping to avoid feelings of being trapped or stuck in their situation.

### **Limitations and Future Directions**

One limitation of the study is the use of archival data from a large national dataset used by participating colleges to explore student health within each college and as compared to a randomly selected national comparison group. While the dataset is the largest of its kind, providing strong generalizability in terms of sampling, some of the variables studied were approximated using extant items from the existing survey. Specifically, measures of entrapment, burdensomeness, and thwarted belongingness used in this study were not established and validated for this purpose. Regardless, Cronbach's alphas ranged from .70 to .85, meaning the extracted items were reliable as measurements for these various items. Future research would benefit from using established and validated measures for each of the variables. It is possible that more variance in suicidal ideation would be predicted by the variables if they were measured using established and validated measures.

In addition, this data was also taken during the Spring of 2021, in the midst of the COVID-19 pandemic. Results and responses may be limited due to the hybrid format of

universities at the time, and student participation potentially being lower than in the past. The college experience was deeply impacted during this time of uncertainty, and the responses may reflect this. More research on entrapment and its impact on suicidality and cultural sensitivity should be conducted, with future research benefitting from continued exploration of validity of the IMV model, specifically in college populations.

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Williams, J. (2001). *The cry of pain*. Penguin.

## Curriculum Vitae

Tupelo Witte  
817-707-1511 | [twitte20@georgefox.edu](mailto:twitte20@georgefox.edu) | Tigard, OR

### Education

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**George Fox University** / Newberg, OR

M.A. in Clinical Psychology

May 2022

Psy.D Clinical Psychology

Expected May 2025

**The University of Mary Hardin-Baylor** / Belton, TX

B.S. Psychology

May 2020

### Clinical Experience

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#### Practicum Student Counselor

*University of Portland Health and Counseling Center, Portland, OR* August 2022 - Present

Supervisor: Dr. Clay Hartmann, Ph.D

- Established rapport with clients using psychodynamic and interpersonal modalities
- Utilized psychodynamic therapy interventions for clients
- Maintained caseload of about 8-10 clients a week
- Created BIRP Notes and intake reports for clients
- Engaged in weekly peer consultation
- Facilitated intake sessions and write ups
- Attended weekly supervision with a licensed psychologist
- Participated in weekly time-limited psychodynamic didactic trainings

#### Assessment Clinic Trainee

*Dr. Shaun Davis, Psy.D Supplemental Assessment Clinic, Newberg, OR*

May 2022 -

Present

Supervisor(s): Dr. Shaun Davis, Psy.D & Stephanie Burkhard, M.A.

- Conducted assessments, scored assessments, and wrote reports across the lifespan for a variety of diagnostic determinations
- Met competency in assessments to continue to use in future clinical work
- Engaged in consistent supervision with a licensed psychologist as needed for cases
- Coordinated assessment batteries and report writing with a masters level clinician/intern
- Facilitated feedback sessions with each patient assessed

#### Behavioral Health Crisis Consultation Team

*Providence Medical System Behavioral Health, Newberg, Oregon,*

January 2022 - Present

Supervisor(s): Dr. Bill Buhrow, Psy.D, Dr. Mary Peterson, Ph.D, & Dr. Luann Foster, Psy.D

- Trained in risk assessment through the Risk Assessment course

- Evaluated and assessed suicidal, homicidal, or threat to self and others patients for in-patient or out-patient treatment
- Experienced interprofessional collaboration navigating mental health systems
- On call schedule to respond to psych emergency type issues within the Emergency Department

### **Practicum Student Counselor**

*George Fox University Health and Counseling Center, Newberg, OR* August 2021 - May 2022

Supervisor(s): Dr. Bill Buhrow, Psy.D & Dr. Luann Foster, Psy.D

- Established rapport with clients using humanistic modalities
- Utilized cognitive behavioral therapy and acceptance and commitment therapy interventions for clients
- Maintained caseload of about 10-12 clients a week
- Engaged in program development of an ADHD psychoeducation and support group
- Created SOAP Notes and intake reports for clients
- Facilitated intake sessions and write ups
- Attended weekly supervision with a licensed psychologist
- Participated in weekly didactic trainings

### **Interactive Screening Program (ISP) Counselor**

*Providence Medical System Behavioral Health, Oregon*

May 2021 - May 2022

Supervisor: Dr. Jeri Turgesen, Psy.D

- Gained work experience using an evidence-based approach to address unmet mental health needs and suicidality among healthcare professionals in Oregon
- Responded promptly to anonymous questionnaires through an online base and provided mental health resources for healthcare workers
- Participated in the program development of ISP in the Providence system and partnership with the American Foundation for Suicide prevention
- Collaborated within the large organization alongside team of 8 people
- Actively engaged in real-time consultation, weekly group supervision, and around 3-5 hours of response time per week

### **Pre-Practicum Pseudo-Therapist**

*George Fox University, Newberg, OR*

February 2021 - April 2021

Supervisor: Dr. Aundrea Paxton, Psy.D

- Worked with analogue-clients for one hour a week implementing person-centered modalities
- Wrote intake reports and weekly SOAP notes for clients
- Attended weekly peer supervision in lab groups of 5 people and professional supervision in clinical teams

### **Professional Training and Workshops**

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#### **Clinical Team**

*George Fox University, Newberg, OR*

August 2020 - Present

- Presented 1-2 deidentified client cases per semester to a group of 6-7 peers, and 1 licensed psychologist

- Participated in weekly consultation with peers on their cases

Meyer, G & Mihura, J. (2022). Introduction to R-PAS: Rationale, Administration, Coding, and Interpretation.

May 2022

Liebscher, B. & Vaiz, L. (2021). May It Be Well With Your Soul: Antiracism, Spiritual Freedom, and Wellness

October 2021

Wilson, E. (2021). Erotic Transcendence: Integrating Faith with What's New in Sex Research.

October 2021

Ackerman, C. (2021). Gender Diverse Clients: Therapy and Intervention Readiness Assessments.

March 2021

Kwee, J. (2021). Saying 'Yes' to your Embodied Life: An Invitation for Psychotherapists.

February 2021

Steward, J. (2020). Complex PTSD: Advanced Case Conceptualization, Assessment, and Treatment Approaches in Trauma Populations.

November 2020

Lee, J. (2020). Examining the Role of Neuropsychology Within the Pediatric Cancer Setting.

October 2020

## Teaching Experience

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### Graduate School of Clinical Psychology Teaching Assistant

*George Fox University, Newberg, OR*

January 2022 - May 2022

- Assisted with grading and class preparation for Social Psychology and Family Therapy
- Supported students with assignment questions and as needed consultation
- Attended weekly meetings and worked alongside 3 other teaching assistants

### Graduate School of Clinical Psychology Writing Coach

*George Fox University, Newberg, OR*

September 2021 - December 2021

- Mentored 2 first year students
- Offered writing assistance through weekly meetings and consultation as needed

### Supplemental Instructor

*The University of Mary Hardin-Baylor, Belton, TX*

August 2019 - January 2020

- Designed and administered weekly study sessions for undergraduate students in General Psychology
- Mentored students and offered tutoring outside of class and sessions
- Promoted sessions with marketing strategies
- Developed sessions alongside team of 6 people

## Volunteer Experience

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### Ending Violence Against Children (evac) Intern

ygap, Melbourne, VIC, Australia      June 2019 - July 2019

- Facilitated an accelerator for entrepreneurs dedicated to stopping child violence
- Hosted a showcase event following the accelerator
- Documented pre/post reports, case studies, and event information
- Worked in a community space alongside a small team of 12 people
- Gained experience working in a diverse workplace

### Young Life Leader

Mid-Tex Young Life, Belton-Temple, TX      2017 - 2020

- Received leadership training over the course of six weeks
- Organized and facilitated weekly meetings (known as “club”)
- Coordinated biweekly meetings with team of 20 leaders
- Assisted other leaders in their ministry as Team Leader
- Formed meaningful relationships with high school students

### High School Small Group Leader

Vista Community Church, Temple, TX      2016 - 2020

- Weekly meetings with a group of 10-20 high school girls.
- Discussed biblical theology and built relationships
- Mediated conflicts taking place within group
- Facilitated meetings with a team of 2 other small group leaders

## Assessments

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- Wechsler Memory Scale 4th Edition (WMS-IV)
- Wechsler Adult Intelligence Scale 4th Edition (WAIS-IV)
- Wisconsin Card Sorting Test (WCST)
- House Tree Person Test (HTP)
- Roberts Apperception Test 2nd Edition (Roberts-2)
- Delis-Kaplan Executive Functioning System (DKEFS)
- California Verbal Learning Test 3rd Edition (CVLT)
- Test of Memory Malingering (TOMM)
- Conners' Continuous Performance Test 3rd Edition (CPT-3)
- Wechsler Intelligence Scale for Children Fifth Edition (WISC-V)
- Wechsler Individual Achievement Test Fourth Edition (WIAT-IV)
- Minnesota Multiphasic Personality Inventory Second and Third Edition (MMPI-2; MMPI-3)
- Millon Clinical Multiaxial Inventory (MCMI)
- 16 Personality Factors (16PF)
- Psychological Assessment Inventory (PAI)
- Rorschach Performance Assessment System (R-PAS)



### Relevant Coursework

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- Family Therapy
- Cognitive Assessment for Adults
- Personality Assessments
- Clinical Foundations
- Cognitive Behavioral Therapy
- Integrative Approaches
- Lifespan Development
- Ethics for Psychologists
- Essentials of Diversity
- Cognitive Assessment for Children
- Psychodynamic Psychotherapy
- Multicultural Psychotherapy
- Substance Abuse
- Group Psychotherapy
- Neuropsychology
- Trauma Treatment

### Academic Honors and Acknowledgements

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- |  |             |
|--|-------------|
| ● Provost's Honor Roll                   | 6 semesters |
| ● Dean's Honor Roll                      | 1 semester  |
| ● Child and Adolescent Track Scholarship | Spring 2021 |

### Activities and Leadership

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- |  |             |
|--|-------------|
| ● Child and Adolescent Psychology Student Interest Group Facilitator | 2021 – 2022 |
| ● Student Wellness Committee   | 2020 – 2021 |
| ● Young Life <b>Team Leader</b>                                      | 2018 – 2020 |
| ● Psi Chi National Honor Society <b>President</b>                    | 2019 – 2020 |
| ● First Year Council Member  | 2016 – 2017 |

### Professional Memberships

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- |   |                |
|---|----------------|
| ● American Psychological Association Member | 2021 – Current |
|---|----------------|