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**Relations Among Measures of Personality, Assessment, and Risk Taking****Austin Wyman****Publication Date**

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### **Purpose and Objective**

This project examines the relationship between various domains of risk-taking behavior and seeking professional psychological help (i.e., therapy). Despite research demonstrating that therapy is valuable and effective at improving patients' mental health (Lambert & Vermeersch, 1994), the vast majority of adults in the United States have reservations about seeking professional psychological help. For example, the Center for Disease Control and Prevention (CDC) reports that, in 2019, only 9.5% of adults in the United States received counseling or therapy from a mental health professional (CDC, 2020). It is important for empirical research to evaluate the current state of affairs in mental health and learn why some individuals are averse to therapy and others are drawn to it. This project aims to develop a more comprehensive understanding of the factors (e.g., risk-taking tendencies, personality, and sociological factors) that influence people to seek help in order to model an individual's affinity for psychological treatment. Results will be applied to policymaking and community initiatives to improve underutilization of mental health resources and will aid campaigns in destigmatizing psychological treatment.

### **Background**

Alcohol, sex, drugs: these activities stereotypically define risk-taking behavior but, in reality, only represent a tiny fragment of risk and its broad implications. Risk is the estimation of an adverse outcome occurring as the result of a decision (Smith et al., 2008). Its definition does not necessitate a trade-off between life and death. In fact, any decision in which there is the chance of an adverse outcome qualifies as a risk, no matter how great or small that adversity is. Because of the diverse range of risk-taking behaviors, it is unhelpful to assess risk taking as a single construct. Weber et al. (2002) further classifies risk taking into five broad domains:

financial, health/safety, ethical, recreational, and social. This framework of “domain-specific risk taking” (Weber et al., 2002) expands the stereotypically narrow scope of risk-taking behavior and allows new activities to be regarded as risks.

Under Weber’s framework, any treatment is inherently a risk. When individuals participate in clinical decision making, they weigh the costs of treatment against its benefits before ultimately deciding whether to continue (Smith et al., 2008). This is especially true for psychological treatment, which requires the patient to have a significant amount of vulnerability and openness (Satir, 1987). While research has demonstrated that psychotherapy is valuable and effective, (Lambert & Vermeersch, 1994), seeking professional psychological help is a risk because of its financial, social, and emotional costs.

Some risks are significant enough to discourage individuals from pursuing therapy entirely. These risks of therapy include the risks of judgment from practitioners (Canvin et al., 2007; Lueck, 2019), spending resources (Canvin et al., 2007; Lueck, 2019), lack of practical help (Canvin et al., 2007), perceived weakness (Francis et al., 2006), and public stigma (Corrigan, 2004; Lueck, 2019). Furthermore, specific demographic groups may have a greater risk perception of therapy than other groups. For example, the perceived risk of losing masculinity is greater among men (Parnell & Hammer, 2018), the risk of public stigma is greater among racial minorities, especially Asian-Americans (Sheu & Sedlacek, 2004) and African-Americans (Taylor & Kuo, 2019), and the risk of judgment is greater among individuals with depression and anxiety (Lueck, 2019). High risk perception in clinical decision making serves as a barrier to treatment. Many individuals perceive the risks of therapy as greater than the return (i.e., improved mental health), which discourages them from seeking help.

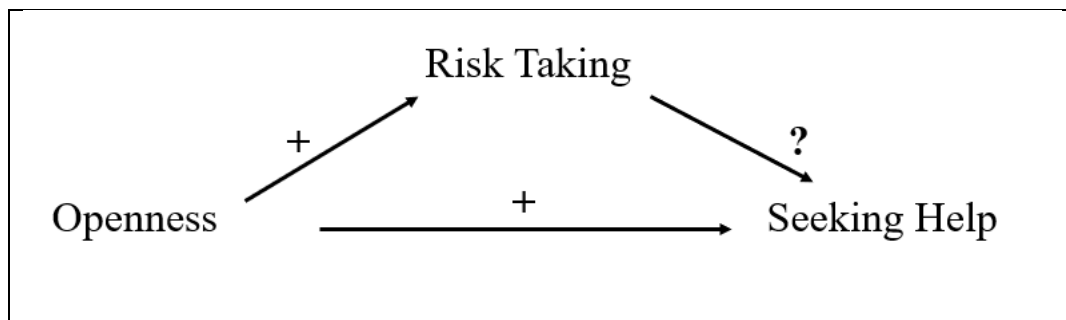
In contrast, many individuals decide to pursue therapy in spite of the risks because they perceive the return as being greater. This risk-return framework of behavior is prolific within populations of business executives (MacCrimmon & Wehrung, 1990), gamblers (Brañas-Garza et al., 2007), and countless other archetypes of “risk takers” in society (Weber & Milliman, 1997). Individuals are considered “risk takers” based on their ability to make decisions in spite of risk outcomes. People pursuing therapy also exhibit this risk-return decision making, suggesting that these individuals can be defined as risk takers as well. This raises the question: do individuals’ risk-taking tendencies predict their willingness to seek professional psychological help?

The literature surrounding the direct relationship between risk taking and seeking professional psychological help is limited. Research has demonstrated a significant, positive relationship between openness to experience and risk-taking behavior across multiple measures of personality and risk taking (McGhee et al., 2012; de Vries et al., 2009; Nicholson et al., 2005). For example, Nicholson et al. (2005) examined the relationship between big-five personality and domain-specific risk taking and found that trait openness had the strongest correlations among personality domains. Research has further shown a significant, positive relationship between openness and seeking professional psychological help, also using a variety of personality measures (Komiya et al., 2000; Kakhnovets, 2011; Banerjee, 2015). From these two relationships, it can be understood that openness has a significant role in both risk-taking behavior and pursuing therapy. However, it is still unknown what effect risk taking has on pursuing therapy. Risk-taking tendencies may act as a mediator within the relationship between openness and seeking help (see Figure 1 below). These known relationships, along with the

nature of therapy as a risk, suggest further examination of the relationship between risk taking and pursuing therapy.

**Figure 1**

*Diagram of the theoretical relationship between risk taking and seeking professional psychological help*



The aim of the present study is to explore the relationship between various risk-taking domains and individuals' willingness to seek professional psychological help in a hybrid student and community sample. The hybrid sample is important to account for extraneous variables like socioeconomic, education level, and cohort effects with age. While the literature discusses reasons that individuals avoid therapy (Corrigan, 2004; Sheu & Sedlacek, 2004; Francis et al., 2006; Canvin et al., 2007; Lueck, 2019; Taylor & Kuo, 2019), there is a gap in our understanding of what conversely attracts individuals to therapy. I will examine the impact of other demographic variables (e.g., age, gender, religion, and geography) on seeking help, in order to further identify individuals' affinity for psychological treatment. This study is important as prior research is limited and findings would help inform clinicians and policymakers on how to aid populations that underutilize mental health resources.

The present study is exploratory in nature and proposes no hypothesis regarding the association between risk-taking domains and seeking help. Instead, the study is guided by a clear purpose: understanding the nature of therapy as a risk and its relation to individuals' risk-taking tendencies. The goal of this project is to explore what motivates some individuals to pursue therapy, but not others, in order to improve utilization of mental health resources and help destigmatize psychological treatment. To achieve this, I will examine (a) the direct relationship between risk-taking domains and seeking help, (b) the mediator effect of risk taking on the established relationship between openness and seeking help, and (c) the hierarchical relationship between multiple factors (e.g., risk-taking domains, personality, religion, family mental health attitudes, and other demographic variables) on seeking help in order to construct a comprehensive model of individuals' attitudes toward pursuing therapy.

## **Methods**

### **Participants and Procedures**

The present study will recruit participants from two sample populations. The first sample will consist of 250 students at the University of Notre Dame, recruited using the university's SONA system. The second, more representative sample will consist of 500 participants from across the United States, recruited using the online data collection platform Prolific. All participants will receive a self-report questionnaire, containing approximately 350 questions, which should be completed within one hour-long session. The questionnaire will begin with a set of demographic questions regarding age, gender, race/ethnicity, religion, geographical origin, socioeconomic status, and education. Afterwards, it will include a barrage of measures that assess domain risk perception and risk taking, willingness to pursue therapy, and personality. Lastly, the questionnaire will ask several questions about the participants' parents, specifically

their religious beliefs and attitudes toward mental health. The study will be described to participants as investigating the “relations among measures of personality, assessment, and risk taking” (RAMPART).

## **Measures**

### *Risk Taking*

Risk taking will be assessed using the Domain-Specific Risk-Taking (DOSPERT) scale, which is a measure of risk perception and risk-taking tendencies across factor-analytically derived domains (Weber et al., 2002; Blais & Weber, 2006). The present study will use the revised form of the scale, which is shortened and more applicable to samples of diverse age, culture, and educational level (Blais & Weber, 2006). The revised form is divided into two assessments. The first part of the scale assesses risk-taking behavior within five domains: ethical, financial, health/safety, recreational, and social. Each domain contains six self-report items (30 items total) that are rated on a 7-point Likert scale, ranging from “extremely unlikely” (1) to “extremely likely” (7). The second part of the scale assesses risk perceptions within the five domains. This section also consists of 30 self-report items rated on 7-point Likert scale, ranging from “not risky at all” (1) to “extremely risky” (7). Both risk taking and risk perception scales will be included in the present study. Additionally, individuals’ overall risk-taking behavior will be assessed by taking participants’ average score among all five domains.

### *Help-Seeking Attitudes*

Participants will complete three measures to assess their attitudes regarding mental health and seeking psychological or psychiatric treatment: the Attitudes Toward Seeking Professional Psychology Help Scale Short Form (ATSPPH-SF: Fischer & Farina, 1995), Inventory of

Attitudes Toward Seeking Mental Health Services (IASMHS: Mackenzie et al., 2004), and Barriers to Help Seeking Scale (BHSS: Mansfield et al., 2005).

First, the Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPH) is a standardized measure of individuals' help-seeking attitudes (Fischer & Turner, 1970). The study will be using the shortened, unidimensional form of the scale, the ATSPPH-SF (Fischer & Farina, 1995), which significantly improves upon internal consistency (Fischer & Farina, 1995), test-retest reliability, construct validity and incremental validity (Elhai et al., 2008), at the cost of reduced dimensional knowledge. The measure contains 10 self-report items that are rated on a 4-point Likert scale, ranging from "agree" (1) to "disagree" (4).

Next, the IASMHS is an adaptation and extension of the ATSPPH that is both multidimensional and internally consistent (Mackenzie et al., 2004). Using factor analysis, the inventory identifies three factors: Psychological Openness, Help-seeking Propensity, and Indifference to Stigma. This three factor structure has also been recreated by other confirmatory factor analysis (Hyland et al., 2015). Furthermore, the inventory also demonstrates strong concurrent validity and construct validity (Hyland et al., 2015). The IASMHS contains 24 self-report items (8 items per factor) that are rated on a 5-point Likert scale, ranging from "disagree" (0) to "agree" (5). All three IASMHS subscales will be included in the study; however, the Indifference to Stigma factor will be evaluated primarily as a measure of "Stigma," not "Seeking Help."

Lastly, the BHSS is a multidimensional measure that assesses individuals' attitudes toward commonly observed barriers to mental health treatment (Mansfield et al., 2005). The scale contains five factor-analytically derived subscales: Need for Control and Self-Reliance, Minimizing Problem and Resignation, Concrete Barriers and Distrust of Caregivers, Privacy, and



Emotional Control. This scale contains 31 self-report items that are rated on a 5-point Likert scale, ranging from “disagree” (1) to “agree” (6). However, the five items on the Privacy subscale will be included from the study because they only apply to professionals and practices that involve physical touch, reducing the scale to 26 self-report items. Additionally, the BHSS demonstrates high internal consistency among factors, and high criterion and convergent validity (Mansfield et al., 2005).

### *Stigma Attitudes*

Stigma attitudes will be measured using two scales: the Brief-Version of the Internalized Stigma of Mental Illness Scale (ISMI-10: Boyd et al., 2014) and the aforementioned Indifference to Stigma subscale (Mackenzie et al., 2004).

The Internalized Stigma of Mental Illness (ISMI) Scale is a multidimensional measure of subjective, internalized experience with stigma about mental health and mental illness (Ritsher et al., 2003). The original scale contained 29 self-report items assessing five factor-analytically derived subscales: Alienation, Stereotype Endorsement, Perceived Discrimination, Social Withdrawal, and Stigma Resistance. It demonstrated high internal consistency and test-retest reliability (Ritsher et al., 2003); however, the authors wanted to create a more concise version of the scale while maintaining these valuable psychometric properties (Boyd et al., 2014). The ISMI-10 contains 10 self-report items rated on a 4-point Likert scale, ranging from “strongly disagree” (1) to “strongly agree” (4). While the brief scale does lose its dimensional knowledge, it effectively maintains the internal consistency of the original scale (Boyd et al., 2014).

### *Personality*

Personality domains will be measured using the Faceted Inventory of the Five-Factor Model (FI-FFM), which is a hierarchical measure of personality that is factor-analytically

derived (Naragon-Gainey et al., 2009; Watson, Nus, & Wu, 2019). The inventory targets the traditional Big Five traits: extraversion, agreeableness, conscientiousness, openness, and neuroticism. The FI-FFM distinguishes itself from other five-factor models with its inclusion of 22 subscales, or facets, within the Big Five. There are five facets within extraversion, conscientiousness, and neuroticism; four within agreeableness, and three within openness. The inventory consists of 207 self-report items that are rated on a 5-point Likert scale, ranging from “strongly disagree” (0) to “strongly agree” (4). The FI-FFM domain and facet scales demonstrate good internal consistency, moderate to strong discriminant validity, and high retest reliability and convergent validity (Watson, Nus, & Wu, 2019).

### *Invulnerability*

Lastly, invulnerability was measured using the Adolescent Invulnerability Scale (AIS: Duggan et al., 2000), which assesses individuals’ subjective vulnerability to physical and social/psychological risks. Despite the scale’s name, its items are clearly generalizable to populations beyond adolescent age. It contains 20 self-report items (12 items for Danger Invulnerability and 8 for Psychological Invulnerability) that are rated on a 5-point Likert scale, ranging from “strongly disagree” (1) to “strongly agree” (5). The AIS has also demonstrated strong internal consistency and construct validity, even compared to similar constructs like risk taking and optimistic bias (Lapsley & Hill, 2010).

### **Data Analysis**

In the present study, I will employ three primary statistical analyses to verify and investigate data with the purpose of understanding the relationship between risk-taking domains and seeking help.

First, I will observe the direct relationship between risk-taking behavior and seeking help by conducting eighteen linear regressions. This analysis will be conducted in three phases, each phase consisting of six linear regressions. The first phase will observe each DOSPERS domain (ethical, financial, health/safety, recreational, social, and overall risk-taking behavior) as the independent variable and ATSPPH-SF help-seeking attitudes as the dependent variable. The second phase will repeat this process, but using the IASMHS instead of the ATSPPH-SF. Lastly, the third phase will repeat using the BHSS. All eighteen regressions will control for gender, given that men and women seek help unequally (Mansfield et al., 2005).

Second, I will observe the mediator effect of risk-taking behavior on the relationship between Openness and help-seeking attitudes. This analysis will also involve three phases. The first phase will be conducting mediation analyses with FI-FFM Openness as the independent variable, ATSPPH-SF help-seeking attitudes as the dependent variable, and DOSPERS overall-risk taking behavior as the mediating variable. The following two phases will repeat this process but with IASMHS and BHSS help-seeking attitudes respectively.

Lastly, I will construct a model of individuals' attitudes toward pursuing therapy using a five-stage hierarchical regression with help-seeking attitudes as the dependent variable. Stage 1 will include the following demographic variables: age, gender, race/ethnicity, religion, geographical origin, socioeconomic status, and education; stage 2 will add family mental health attitudes and family religion; stage 3 will add stigma attitude measures; stage 4 will add FI-FFM personality domains and AIS invulnerability; and stage 5 will add DOSPERS risk-taking domains. This analysis will be conducted three times, once for each help-seeking attitudes measure.

Data cleaning and variable analysis will be conducted in IBM SPSS Statistics (Version 26) Software. Regressions and other exploratory data analysis will be conducted in RStudio (Version 4.1.1.) Software.

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