

The Dark Triad Predicts Suicide Ideation and Aggression in a General Population Sample

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A Master's Thesis Submitted in Partial Fulfillment

of the Requirements for

the Masters of Psychology Degree

Department of Psychology

The School of Arts and Sciences

Rhode Island College

2024

Abstract

The Dark Triad of personality may be related to an increased likelihood of experiencing suicide ideation, and aggression perpetration, which could lead to profound negative impacts in the lives of those high in the Dark Triad traits. Moreover, alcohol use may serve to mediate these relationships. The purpose of this quantitative study is to examine the influence of the Dark Triad of personality on suicide ideation, and external aggression, with additional consideration to the role of alcohol use. A survey was administered to 197 participants via Qualtrics to assess demographic information, Dark Triad traits, alcohol use, interpersonal needs, and external aggression using the Dirty Dozen scale, the Alcohol Use Disorders Identification Test (AUDIT), the Interpersonal Needs Questionnaire (INQ-15), and the Reactive Proactive Aggression Questionnaire (RPAQ). Data were analyzed using a structural equation model in AMOS. Findings suggest that the Dark Triad is significantly related to both interpersonal needs, and external aggression. However, alcohol use was not found to mediate these relationships. Our findings pose important theoretical, and practical implications for the potentially negative outcomes that those high in the Dark Triad may face throughout their lifetime.

Keywords: Dark Triad, suicide ideation, alcohol use, external aggression

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Introduction

Suicide Ideation

The United States (US) has seen a substantial increase in deaths by suicide over the recent years, with a 2.6% increase in suicide completions between 2021 and 2022 alone (CDC, 2023). In fact, according to the Centers for Disease Control and Prevention (CDC), suicide is currently one of the leading causes of death in the US (CDC, 2022; Esang & Ahmed, 2018). Thus, the increase in completed deaths by suicide is of great societal concern. Psychiatrists, psychologists, and others working in the mental health field are making continued efforts to understand the various warning signs that one may display if they are planning to end their life (Tucker et al., 2015). Suicide ideation (SI), otherwise known as suicidal thoughts, is a primary indicator of one's plans to attempt suicide (CDC, 2022). One prominent theory of SI is the Interpersonal-Psychological Theory of Suicide (IPTS; Joiner, 2005; Van Orden et al., 2010). The IPTS theorizes that suicidal thoughts and behaviors are driven by two psychological states: thwarted belongingness and perceived burdensome (otherwise referred to as interpersonal needs; Joiner, 2005; Van Orden et al., 2010). Thwarted belongingness refers to the feeling of being socially alienated from others (Van Orden et al., 2010). This may include feeling alienated from one's family, friends, or people in general (Joiner, 2005; Van Orden et al., 2010). Perceived burdensomeness refers to the belief that one's existence is a burden to others (i.e., family, friends, society; Joiner, 2005; Van Orden et al., 2010). If one perceives themselves as a burden, they may believe that their death is more beneficial to others than their life (Joiner, 2005; Van Orden et al., 2010).

External Aggression

In addition to suicide, in recent years, the US has seen a significant increase in the rates of aggressive and violent acts with the Federal Bureau of Investigation (FBI) reporting 951,270 aggressive or violent offenses perpetrated in 2022 (FBI, 2022). The American Psychological Association (APA) defines aggression as any behavior with the goal of causing physical, or psychological harm to another individual (APA, 2023). Those working in the fields of criminal justice, forensics, and psychology have attempted to understand aggressive behavior, with an overall goal of reducing the rates of aggression. Many of these fields, however, solely address criminality once it has occurred, yet it is equally important to understand what serves as a potential predictor of externally directed aggression.

Literature Review

Alcohol Use, Suicide Ideation, and External Aggression

Given the increased rates of both death by suicide and acts of aggression in the US, research has aimed to understand the antecedents of such behaviors. One approach is to examine one's personality traits, as well as maladaptive coping behaviors, including alcohol use. Various studies have examined the influence of personality traits, and alcohol use on suicide ideation, and external aggression (Harrop et al., 2017; Hsu et al., 2022; Hwang et al., 2014; Jones & Neria, 2015). Other studies have attributed personality traits to an increased likelihood of alcohol misuse (Loose et al., 2018). Despite these known interactions, little research has attempted to examine whether or not alcohol use explains the relationship between personality traits and both suicide ideation, and external aggression.

Personality Traits and Interpersonal Needs

Many studies have examined the influence of personality traits using the Dark Triad model of personality (Chabrol et al., 2015; Harrop et al., 2017; Wang et al., 2023). The Dark Triad model is used to assess personality traits on three dimensions: narcissism, psychopathy, and Machiavellianism (Paulhus & Williams, 2002). Research has focused on finding established links between the Dark Triad and interpersonal needs. One study sought to examine the effects of the Dark Triad on likelihood of experiencing depression and suicide ideation in a sample of 115 American college students (Lster & Dadfar, 2022). Specifically, researchers found that narcissism and psychopathy served as predictors of both depression and suicide ideation (Lester & Dadfar, 2022). Another study sought to understand the role that social alienation has in the relationship between the Dark Triad and suicide ideation (Wang et al., 2023). This study utilized a sample of 1,689 Chinese adolescents, and data were collected in two waves. Results showed statistically significant direct effects between the Dark Triad and suicide ideation, and that social alienation mediated this relationship (Wang et al., 2023). Similar studies have also shown that the Dark Triad personality traits may serve as a predictor of non-suicidal self-injury (NSSI), which is further attributed to increased risk of experiencing the interpersonal needs which are associated with experiencing suicide ideation (Greitemeyer & Sagioglou, 2021; Joiner, 2005).

Personality Traits and Alcohol Use

While personality dimensions have been related to suicide ideation, they have also been related to many maladaptive behaviors including increased alcohol use (Jauk & Dieterich, 2019; Nnam et al., 2021; Pechorro et al., 2019). One recent study attempted to understand the effect that the Dark Triad has on alcohol use (Nnam et al., 2021). Using a sample of 264 undergraduate students, a survey which measured the Dark Triad traits, as well as alcohol consumption was

utilized. Results from this study revealed that students possessing traits of Machiavellianism, and psychopathy were more prone to hazardous alcohol intake (Nnam et al., 2019). Related studies have placed specific emphasis on understanding the relationship between narcissism, and alcohol use (Welker et al., 2018). This study obtained a sample of 345 college-aged students who completed a survey which assessed both vulnerable, and grandiose narcissism, as well as alcohol use (Welker et al., 2018). Multiple regression analyses suggested that grandiose narcissism served to predict alcohol consumption, and alcohol-related problems. It was also found that vulnerable narcissism was positively correlated with alcohol-related problems (Welker et al., 2018). Taken together, these studies demonstrate the relationship between the Dark Triad personality traits and alcohol use.

Alcohol Use, and Interpersonal Needs

In addition to personality traits, increased alcohol use has been shown to serve as another likely predictor of suicide ideation (Esang & Ahmed, 2018; Hsu et al., 2022). According to the Alcohol Rehab Guide, an increase in alcohol consumption is related to approximately 1/3 of suicide-related deaths (Alcohol Rehab Guide, 2022). Moreover, various studies have solely examined if increased alcohol consumption serves as a potential predictor of suicide ideation (Amiri & Behnezhad, 2020; Esang & Ahmed, 2018; Hsu et al., 2022). One recent study obtained data by examining medical records of individuals who had received outpatient treatment for alcohol use disorder (AUD), yielding an overall sample of 136 Taiwanese individuals over the age of 20 (Hsu et al., 2022). Analyses revealed that those who reported more alcohol use may be at an increased risk of experiencing suicide ideation (Hsu et al., 2022). A similar study completed a meta-analysis to reveal the effect that alcohol use has on likelihood of suicide attempt and completion (Amiri & Behnezhad, 2020). Having evaluated a total of 196 studies, the

meta-analysis indicated that alcohol use serves as a major risk factor for suicide attempt, and completion (Amiri & Behnezhad, 2020).

Personality Traits and External Aggression

While studies have examined the relationship between the Dark Triad and interpersonal needs, other studies have examined the relationship between the Dark Triad and externalized aggression (Jones & Neria, 2015; Pailing et al., 2014, Okano et al., 2016). Previous studies have identified that the Dark triad dimensions: narcissism, Machiavellianism, and psychopathy are related to an increased likelihood of acting aggressively towards others (Jones & Neria, 2015). One study attempted to examine the link between narcissism and aggression through a meta-analysis (Kjærvik & Bushman, 2021). Researchers were able to obtain 437 studies with a total of 123,043 participants. Results from the meta-analysis concluded that narcissism was related to multiple forms of aggression, including physical, and verbal (Kjærvik & Bushman, 2021). Machiavellianism has been previously associated with increased violence (Pailing et al., 2014). Further, psychopathy has been previously related to aggressive behaviors such as intimate partner violence (Okano et al., 2016), as well as verbal, and indirect aggression (Thomson et al., 2018).

Alcohol Use, and External Aggression

In addition to the Dark Triad traits, increased alcohol use has been widely examined as a predictor of aggression towards others. According to the Alcohol Rehab Guide, between 15% to 40% of aggressive crimes are committed following the consumption of alcohol (Alcohol Rehab Guide, 2022). Due to these high rates of alcohol-related crime, many studies have aimed to codify these statistics throughout recent decades. One study attempted to examine how alcohol dependence correlates with aggressive tendencies (Hwang et al., 2014). For example, researchers

conducted a cross-sectional study using a sample of 90 males, who were all seeking treatment for internet addiction, or alcohol dependence in South Korea. Results suggested that individuals who are dependent on alcohol were higher in impulsivity, and higher in aggressive expression compared to a control group (Hwang et al., 2014). Similar studies have identified associations between alcohol dosage and aggressive behaviors, indicating that a higher dose is correlated with a higher likelihood of aggression (Duke et al., 2010).

The Current Study

Little is known about the effects of both the Dark Triad and alcohol use on interpersonal needs (perceived burdensome (PB) and thwarted belongingness (TB)) versus external aggression. The current study aimed to investigate the influence of the Dark Triad personality traits and interpersonal needs, as well as external aggression. The research also sought to understand the role that alcohol use plays in these relationships. This study contributes to what is known regarding the IPTS and external aggression, as well as the potential implications of increased alcohol use on certain personality dimensions. The following hypotheses were used to guide the current study:

H1: Direct effects will exist between the Dark Triad and interpersonal needs.

H2: Direct effects will exist between the Dark Triad and external aggression.

H3: Alcohol use will mediate the effect of the Dark Triad on interpersonal needs and external aggression.

These hypotheses were pre-registered on AsPredicted.com via the following web address:

<https://aspredicted.org/>

Methods

Participants

A sample of 197 individuals (71.07% F, 27.41% M, 1.52% unknown) were recruited for participation in this study based on Kline's (1998) criteria for an adequate sample size in a path analysis. It is suggested that an appropriate sample size should be 20 times the number of parameters in the path analysis (Kline, 1998). The current study used 10 parameters (see the figure at the end of this section). Thus, a sample of 197 individuals was obtained. Participants in this study consisted of adult members from the general population and were recruited through the Prolific website. Participants were paid \$3.00 for completion of this study.

Design

A survey design was used due to the personal information that this study gathered about participants. Moreover, variables in this study are not able to be manipulated experimentally; therefore, the use of a survey allowed for this study to measure traits, and subsequently test a causal model specified before data collection.

Measures

Demographic Questionnaire

A brief demographic questionnaire was utilized to obtain relevant demographic information. Such information includes that about participant's age, biological sex, gender identification, and level of education. Sample questions include, "What is your age?" and "With what gender do you identify with?"

Personality Traits

One's personality traits were operationalized using the Dark Triad model of personality. Dark Triad personality traits were measured using the Dirty Dozen measure (Jonason & Webster, 2010). Participants completed the Dirty Dozen measure by rating 12 statement items on a scale

from 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items include “I tend to want others to admire me” and “I have used deceit or lied to get my way”. Studies have found adequate support for the internal consistency of the Dirty Dozen measure (Cronbach’s $\alpha = 0.83$; Jonason & Webster, 2010).

Alcohol Use

Alcohol use was measured using the Alcohol Use Disorders Identification Test (AUDIT; Saunders et al., 1993). The AUDIT asks various self-report style questions to gauge a sense of the responder’s frequency, and severity of alcohol consumption (Saunders et al., 1993). Participants responded to the 10-item questionnaire by rating statements on various scales. Sample items include “how often do you have six or more drinks on one occasion?” and “how often do you have a drink containing alcohol?”. Studies have reported support for the internal consistency of the AUDIT (Cronbach’s $\alpha = 0.96$; Noorbakhs et al., 2018).

Interpersonal Needs

Interpersonal Needs as they relate to the ITPS were assessed using the Interpersonal Needs Questionnaire (INQ-15; Van Orden et al., 2012). Participants responded to the INQ by rating 15 items on a scale from 1 (*Not at all true for me*) to 7 = (*Very true for me*). 9 items relate to thwarted belongingness (TB), and 6 items relate to perceived burdensome (PB). Sample items include “These days, I think I am a burden on society” and “These days, I feel disconnected from other people”. The adequate internal consistency of the INQ has been supported by various studies for both TB (Cronbach’s $\alpha = 0.85$) and PB (Cronbach’s $\alpha = 0.89$).

External Aggression

Acts of external aggression towards others were measures using 9 items from the Reactive-Proactive Aggression Questionnaire (RPAQ; Raine et al., 2006). Participants were

asked to respond to 9 items on a scale from 0 (*never*) to 2 (*often*). Sample items include “How often have you used physical force to get others to do what you want?” and “How often you yelled at others when they have annoyed you?”. Multiple studies have reported sufficient support for the internal consistency of the RPQ (Cronbach’s $\alpha = 0.90$; Raine et al., 2006).

Procedures

This survey was be administered online through Qualtrics. This method was used due to the convenience of completing a survey electronically. First, participants were provided with a consent form to allow participants the informed decision as to whether they wish to participate in the current study. Questions in this survey were not forced choice, therefore participants were able to skip any questions they did not feel comfortable responding to. Participants were able to discontinue their participation in this study at any time.

Once consent was given, participants were presented with a brief demographic questionnaire, and four instruments in a randomized order to control for order effects. To ensure participant confidentiality, researchers did not collect any identifiable information, such as names, email addresses, or phone numbers. Moreover, all data were stored under double password protection and are only accessible to the researchers. The demographic questionnaire asked participants to state their age, biological sex, and gender. Participants were then asked to complete the Dirty Dozen scale (DD; Jonason & Webster, 2010), the Alcohol Use Disorders Identification Test (AUDIT; Saunders et al., 1993), the Interpersonal Needs Questionnaire (INQ-15; Van Orden et al., 2012), and the Reactive-Proactive Aggression Questionnaire (RPAQ; Raine et al., 2006).

The estimated time to complete this survey was no longer than 20 minutes. All participants were provided \$3 through Prolific to compensate for their participation in this study.

Statistical Analysis

Statistical analyses were performed using AMOS. Descriptive statistics and path modeling (Kline, 2018) will estimate how personality dimensions predict alcohol use, interpersonal needs, as well as external aggression. The path model in Figure 1 presents the full model. The decision was made a-priori that if a path in the full model is not different from zero, it will be fixed to that value in a restricted model. In the full model, we tested whether alcohol use explains the relationship between the Dark Triad and interpersonal needs versus external aggression.

Results

A structural equation model was utilized to assess associations between the Dark Triad, alcohol use, suicide ideation, and external aggression. The full and respecified models are presented in Appendix A. The parameter estimates for the full and respecified models are presented in Appendix B.

Full Model

The full model was specified from the Interpersonal-Psychological Theory of Suicide (IPTs; Joiner, 2005). However, two reasons led us to reject the adequacy of the full model. First, alcohol use was predicted to mediate the effect of the Dark Triad on interpersonal needs and external aggression. However, the Dark Triad was not reliably associated with alcohol use and predicted on 2% of the variance in the alcohol construct ($\beta = .16, p = .10$). In addition, alcohol use did not predict interpersonal needs ($\beta = .11, p = .20$) or external aggression ($\beta = .13, p = .12$), which fails to support hypothesis three. However, the Dark Triad reliably predicted interpersonal needs ($\beta = .20, p = .02$), and external aggression ($\beta = .61, p < .001$), ultimately supporting

hypotheses one and two. The full model explained approximately 6% of the variance in interpersonal needs, and 41% of the variance in external aggression.

Overall, although the chi square measure of fit and the Root Mean Square Error of Approximation were adequate, the fact that the Dark Triad was unrelated to the mediator predicted from theory led us to reject the adequacy of the full model to reproduce (i.e., fit) the variance and covariances of constructs in the model ($\chi^2(22) = 37.88, p = .02$; RMSEA = .06, 90% CI [.025, .093]; CFI = .97).

Respecified Model

Because alcohol use was not predicted by the Dark Triad, and because it did not predict aggression or alcohol use, it was dropped from the respecified model. Table 3 presents the parameter estimates for the respecified model.

The Dark Triad reliably predicted interpersonal needs ($\beta = .24, p = .01$) and external aggression ($\beta = .63, p < .001$), in continued support of hypotheses one and two. Approximately 6% of the variance in interpersonal needs and 39% of the variance in aggression was predicted by the Dark Triad construct and these values are similar to those from the full model. Given that the primary focus of this research was to explain variance in cognition associated with interpersonal needs, neither the full nor the restricted model adequately fit the data ($\chi^2(13) = 30.67, p = .004$; RMSEA = .083, 90% CI [.045, .122]; CFI = .96).

Post-Hoc Correlations

A series of Pearson's r correlations were computed to assess the linear relationships between variables. First, a correlation test was run to identify which Dark Triad trait was most strongly correlated with interpersonal needs. Of the three Dark Triad traits, psychopathy was found to be the most highly correlated with interpersonal needs, $r(189) = .27, p < .001$.

Additional correlations were computed to assess which Dark Triad trait was most strongly correlated with each component of the IPTS: perceived burdensome, and thwarted belongingness. Of the three Dark Triad traits, psychopathy was most strongly correlated with both perceived burdensome, $r(191) = .21, p < .01$, and thwarted belongingness $r(194) = .26, p < .001$.

A series of Pearson's r correlations were computed to assess the linear relationships between variables. A correlation test was run to identify which Dark Triad trait was most strongly correlated with external aggression. Of the three Dark Triad traits, Machiavellianism was found to be the most highly correlated with external aggression, $r(192) = .37, p < .001$. Additional correlations were run to assess which Dark Triad trait was most strongly correlated with each component of the RPAQ aggression measure: proactive aggression and reactive aggression. Of the three Dark Triad traits, Machiavellianism was most strongly correlated with both proactive aggression $r(193) = .34, p < .001$, and reactive aggression, $r(194) = .38, p < .001$.

Discussion

The present research explored the relationships between the Dark Triad and interpersonal needs as they relate to suicide ideation, as well as external aggression. The current study also aimed to understand whether alcohol use mediated these relationships. The results of this study provide supporting evidence to suggest that the Dark Triad is attributed to increased suicide ideation, and external aggression.

The current study considered the Dark Triad, which consists of narcissism, psychopathy, and Machiavellianism, as a potential indicator of higher interpersonal needs, as well as an increased chance of exhibiting external aggression perpetration. Our findings indicate that those who scored higher on the Dark Triad may experience higher levels of interpersonal needs, which

supports hypothesis one. This finding supports previous literature which suggests that the Dark Triad is related to suicide ideation (Chabrol et al., 2015; Lester & Dadfar, 2022; Wang et al., 2023). This finding may be best explained by feelings of perceived burdensome and thwarted belongingness, which have been identified in those high in the Dark Triad (Harrop et al., 2017).

The Dark Triad

An additional meaningful finding in the current study recognized that the Dark Triad is associated with increased aggression towards others, which is consistent with hypothesis two. This finding represents earlier demonstrations of the Dark Triad and external aggression, as previous research has identified that the Dark Triad traits predict physical, verbal, indirect (Thomson et al., 2019), and dispositional aggression (Jones & Neira, 2015). Other studies have reported associations between the Dark Triad, and intimate-partner violence (Okano et al., 2016). This finding may be best explained by the reduced gray matter in certain areas of the brain, including dorsolateral prefrontal cortex, that has been identified in those high in the Dark Triad (Myznikov et al., 2024), and has been further associated with impulsivity, and aggressive tendencies (Zhang et al., 2019). Moreover, those high in the Dark Triad have been identified as having empathic deficits (Heym et al., 2019), which serves to further explain the current study's findings.

Alcohol Use

Although hypotheses one and two were supported by the data, our results do not show that alcohol use mediates the relationship between the Dark Triad and interpersonal needs, or the relationship between the Dark Triad and external aggression. Thus, hypothesis three was not supported. Our interpretation of this finding is that frequency and intensity of alcohol use is commonly underreported in alcohol use-based surveys (Boniface et al., 2014; Livingston &

Callinan, 2015). The underreporting of alcohol use may reflect the known stigma surrounding higher alcohol use (Johnston, 2022), which may explain why alcohol use did not have meaningful effects in the current study. Furthermore, our sample consisted of 96.08% of individuals from United Kingdom (UK), and 2.45% of individuals from the US. Attitudes, laws, and beliefs surrounding alcohol use differ greatly throughout the world, especially between America and Europe (Labhart et al., 2017). Thus, cultural differences regarding drinking patterns in Europe, combined with having a large UK sample may account for the lack of support the current study found regarding the effects of alcohol use.

Limitations and Future Directions

Although the present results clearly support the notion that the Dark Triad is related to both interpersonal needs and external aggression, it is appropriate to address several limitations. First, the use of a self-report survey serves as a potential limitation of this study, especially given the sensitive nature of certain survey topics. It is entirely possible that participants may have overreported, or underreported their experiences in their responses, which would result in inaccuracies in the data. Future studies should attempt to gather non-self-report data in order to investigate this relationship as accurately as possible. Second, the use of a cross-sectional study design limits this study as we are limited in the number of generalizations that we are able to make. Because data were only collected at one point in time, it becomes challenging to generalize findings to a variety of other situations. Researchers should attempt to examine these variables in relation to one another longitudinally in future studies. Finally, the matter of causality remains a limitation of this study, because although associations between variables were identified, we are unable to conclude that the Dark Triad directly causes one's level of interpersonal needs, or external aggression.

Despite these limitations, results from the present study suggest several theoretical and practical implications. To our knowledge, this is the first study to explore the relationship between the Dark Triad, and both interpersonal needs as well as external aggression in the same study. The findings from the present study improve our understanding of how the Dark Triad correlates to interpersonal needs, and external aggression. Future studies should seek to explore the potential biological, social, and environmental explanations for these relationships. Considering the continual increases in the suicide rate, as well as the rate of aggressive behavior, research on the correlation between the Dark Triad and interpersonal needs, as well as external aggression should continue in the future, as there are many remaining unknown factors surrounding this topic.

In terms of practical implications, findings from this study shed light on the importance of understanding the potential outcomes that those possessing the Dark Triad traits may face. The interpersonal needs which are associated with suicide ideation often put individuals at an increased risk of suicide attempt (Harmer et al., 2023; Klonsky et al., 2016). Thus, not only is the Dark Triad related to these interpersonal needs, but the Dark Triad can be further related to the occurrence of suicide attempt. Additionally, considering the Dark Triad is associated with external aggression, those higher in the Dark Triad may face involvement with the justice system, or imprisonment during their lifetime as a result of such aggression (Brugués & Caparrós, 2022). Taken together, these findings suggest that interventions, and treatments should be easily available to individuals who are high in the Dark Triad to prevent the occurrence of a suicide attempt or imprisonment due to aggression perpetration. Mental health professionals should be aware of the potentially harmful influence that the Dark Triad can have on individual's thoughts and behaviors.

The present research contributes to a growing body of evidence supporting the potentially harmful, and dangerous behaviors associated with the Dark Triad. The current study provides clear support for the idea that the Dark Triad is positively related to both interpersonal needs, and external aggression. Considering the increasing rates of both suicidality and aggression in the US, research on this topic should continue in the future. We hope that this research will serve to guide further investigation of the implications of the Dark Triad as well as bring awareness to the matters of suicide and of aggression.

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Appendix A: Models

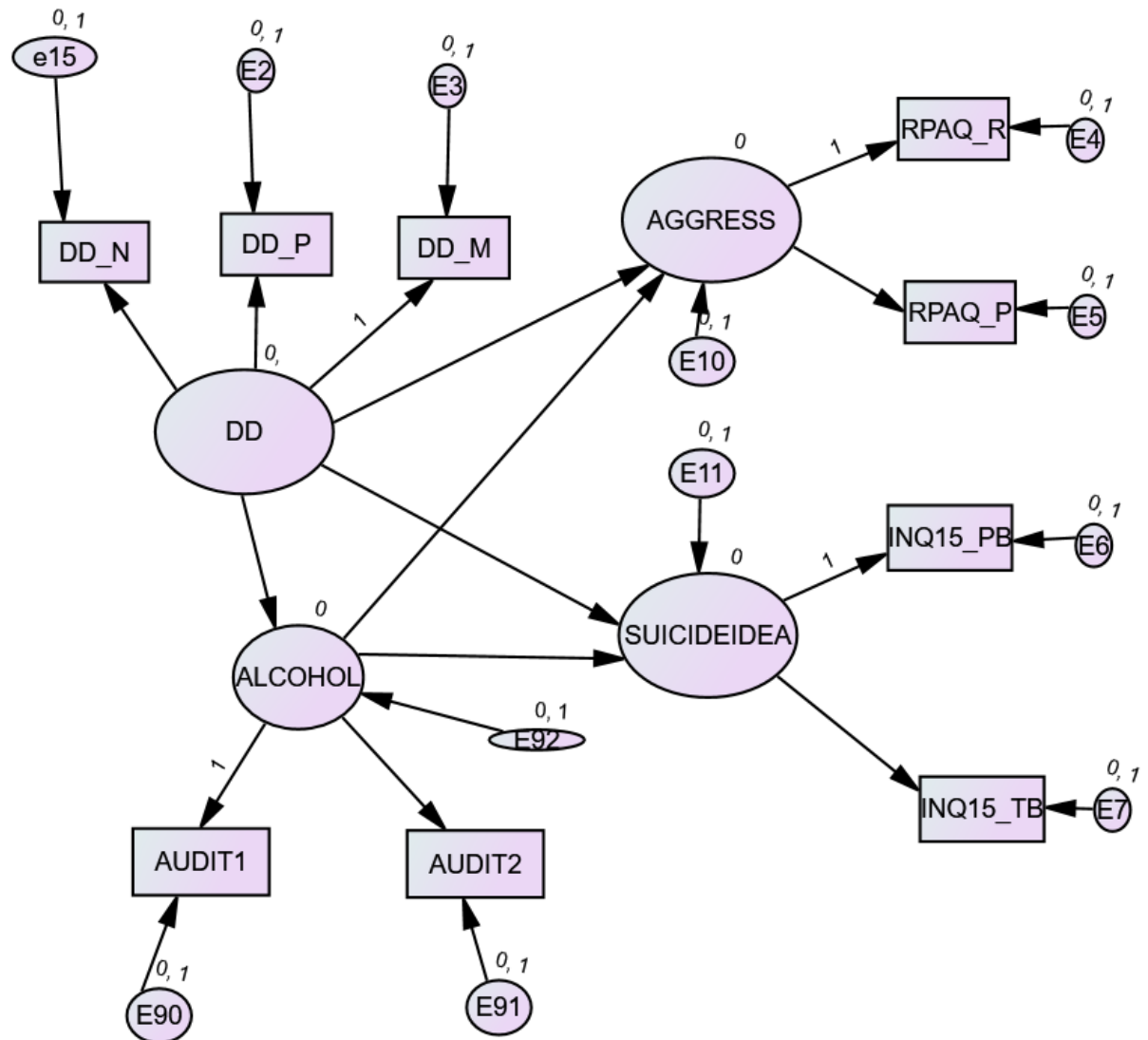


Figure 1. Full Structural Equation Model

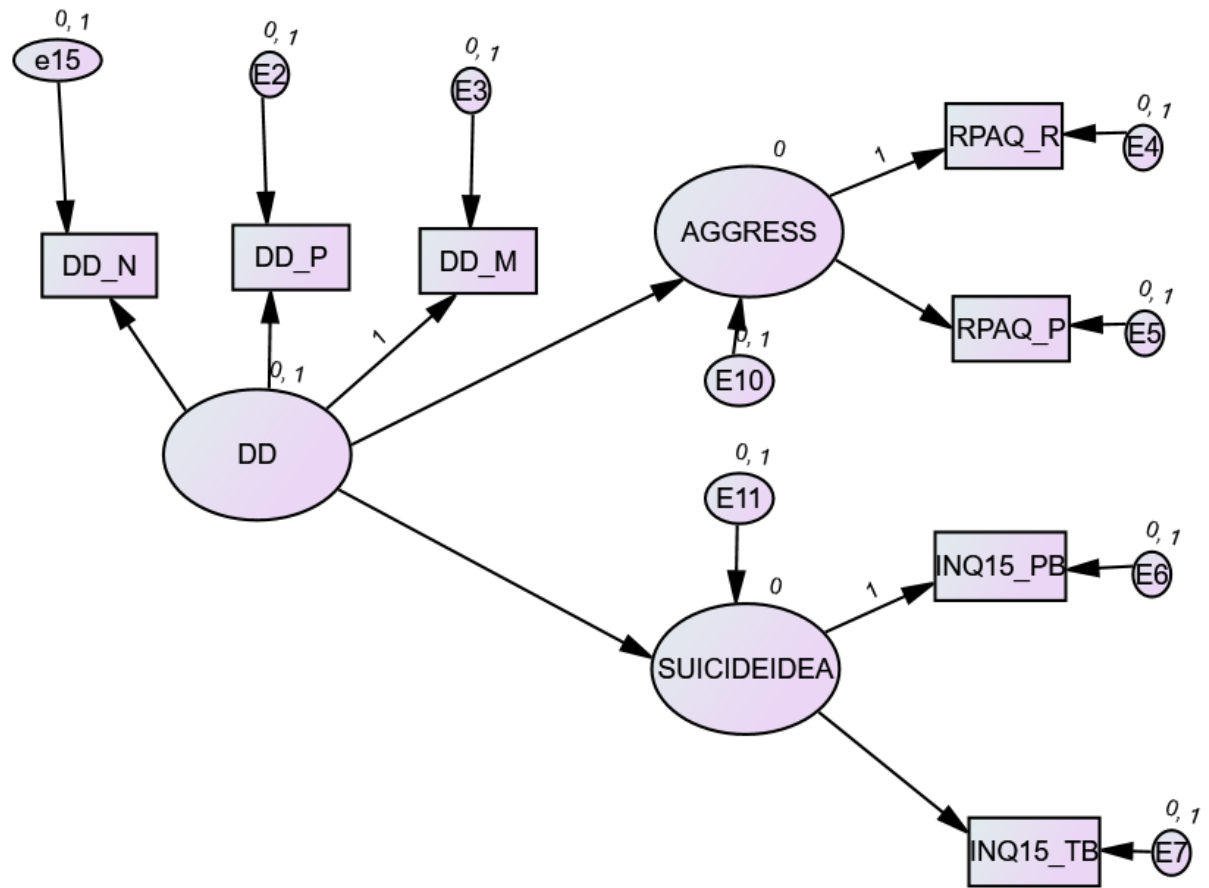


Figure 2. Restricted Structural Equation Model

Appendix B: Tables**Table 1***Full Model of the Dirty Dozen, Alcohol Use, Suicide Ideation, and Aggression*

| | Unstandardized | Standardized | Probability |
|------------------------|----------------|--------------|-------------|
| DT and Alcohol | 0.058 | 0.16 | 0.1 |
| Alcohol and SI | 0.282 | 0.11 | 0.2 |
| Alcohol and Aggression | 0.071 | 0.13 | 0.12 |
| DT and SI | 0.189 | 0.2 | 0.02 |
| DT and Aggression | 0.118 | 0.61 | <.001 |

Table 2*Full Model: Percentage of Variance in Latent Construct Explained*

| | R^2 |
|------------------|-------|
| Alcohol Use | 0.02 |
| Suicide Ideation | 0.06 |
| Aggression | 0.41 |

Table 3*Parameter Estimates for the Restricted Model*

| | Unstandardized | Standardized | Probability |
|-------------------|----------------|--------------|-------------|
| DT and SI | 0.22 | 0.24 | 0.01 |
| DT and Aggression | 0.13 | 0.63 | <.001 |

Table 4*Respecified Model: Percentage of Variance in Latent Constructs Explained*

| | R^2 |
|------------------|-------|
| Suicide Ideation | .06 |
| Aggression | 0.39 |

Table 5*Post-Hoc Correlations*

| Variable | <i>n</i> | <i>M</i> | <i>SD</i> | 1 | 2 | 3 | 4 | 5 |
|---------------------|----------|----------|-----------|--------|--------|--------|--------|---|
| 1. Narcissism | 197 | 2.65 | 1.24 | - | | | | |
| 2. Psychopathy | 197 | 2.23 | 1.1 | .43** | - | | | |
| 3. Machiavellianism | 196 | 2.12 | 1.13 | .63** | 0.63** | - | | |
| 4. Suicide Ideation | 190 | 2.68 | 1.15 | 0.16* | 0.27** | 0.17* | - | |
| 5. Aggression | 194 | 0.3 | 0.23 | 0.29** | 0.32** | 0.37** | 0.22** | - |

Note: * $p < .05$. ** $p < .01$

Appendix C: Survey

Instructions: Please answer each of the following questions to the best of your ability.

Demographic Questionnaire

1. What is your age? _____
2. What is your biological sex?
 1. Male
 2. Female
3. With what gender do you identify with?
 1. Woman
 2. Man
 3. Transgender
 4. Non-binary
 5. Other
4. What is your level of education?
 1. Less than high school
 2. High school
 3. Some college
 4. College
 5. Advanced degree

The Dirty Dozen Scale (DD)

Please use the following scale to rate how true each of the following statements are for you. Select the most appropriate answer (1 = Strongly Disagree; 7 = Strongly Agree)

1. I tend to lack remorse.
2. I tend to be callous or insensitive.
3. I tend to manipulate others to get my way.
4. I tend to want others to admire me.
5. I tend to want others to pay attention to me.
6. I tend to seek prestige or status.
7. I tend to expect special favors from others.
8. I tend to exploit others towards my own end.
9. I have used deceit or lied to get my way.
10. I have used flattery to get my way.
11. I tend to be unconcerned with the morality of my actions.
12. I tend to be cynical.

The Alcohol Use Disorders Identification Test (AUDIT)

Please use the following scale to rate how true each of the following statements is for you.

Select the most appropriate answer.

1. How often do you have a drink containing alcohol?
 0. Never
 1. Monthly or less
 2. 2-4 times a month
 3. 2-3 times a week
 4. 4 or more times a week
2. How many drinks containing alcohol do you have on a typical day when you are drinking?
 0. 1 or 2
 1. 3 or 4
 2. 5 or 6
 3. 7, 8, or 9
 4. 10 or more
3. How often do you have six or more drinks on one occasion?
 0. Never
 1. Less than monthly
 2. Monthly
 3. Weekly
 4. Daily or almost daily
4. How often during the last year have you found that you were not able to stop drinking once you had started?
 0. Never
 1. Less than monthly
 2. Monthly
 3. Weekly
 4. Daily or almost daily

5. How often during the last year have you failed to do what was normally expected of you because of drinking?
 0. Never
 1. Less than monthly
 2. Monthly
 3. Weekly
 4. Daily or almost daily
6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?
 0. Never
 1. Less than monthly
 2. Monthly
 3. Weekly
 4. Daily or almost daily
7. How often during the last year have you had a feeling of guilt or remorse after drinking?
 0. Never
 1. Less than monthly
 2. Monthly
 3. Weekly
 4. Daily or almost daily
8. How often during the last year have you been unable to remember what happened the night before because of your drinking?
 0. Never
 1. Less than monthly
 2. Monthly
 3. Weekly
 4. Daily or almost daily
9. Have you or someone else been injured because of your drinking?
 0. No
 1. Yes, but not in the last year
 2. Yes, during the last year

10. Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?

- 0. No
- 1. Yes, but not in the last year
- 2. Yes, during the last year

Interpersonal Needs Questionnaire (INQ-15)

Please use the following scale to rate how true each of the following statements are for you.

Select the most appropriate answer (1 = Not at all true for me; 7 = Very true for me)

1. These days the people in my life would be better off if I were gone
2. these days the people in my life would be happier without me
3. These days I think I am a burden on society
4. These days I think my death would be a relief to the people in my life
5. These days I think the people in my life wish they could get rid of me
6. These days I think I make things worse for the people in my life
7. These days, other people care about me
8. These days, I feel like I belong
9. These days, I rarely interact with people who care about me
10. These days, I am fortunate to have many caring and supportive friends
11. These days, I feel disconnected from other people
12. These days, I often feel like an outsider in social gatherings
13. These days, I feel that there are people I can turn to in times of need
14. These days, I am close to other people
15. These days, I have at least one satisfying interaction every day

The Reactive-Proactive Aggression Questionnaire (RPAQ)

Please use the following scale to rate how true each of the following statements are for you. Select the most appropriate answer (0 = Never; 1 = Sometimes, 2 = Often)

How often have you...

1. Yelled at someone when they have annoyed you
2. Had fights with others to show who was on top
3. Damaged things because you felt mad
4. Became angry or mad when you don't get your way
5. Used physical force to get others to do what you want
6. Felt better after hitting or yelling at someone
7. Threatened and bullied someone
8. Hit others to defend yourself
9. Yelled at others so they would do things for you

Appendix D: Informed Consent

Rhode Island College Institutional Review Board

Approval #: _____

Expiration date: _____

Participant's Initials: _____

Document version: _____

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CONSENT DOCUMENT**Rhode Island College****Personality and Behavior**

You are being asked to participate in a research study about how personality traits influence behavior. Participation in this study is voluntary and it is anticipated that you would be involved for 20 minutes. You are being recruited because you have accessed the Prolific Web Site where individuals volunteer for participation in research studies. Please read the entire consent form before deciding whether or to participate.

If you are under 18 years of age you may not participate.

Chloe Stanfa, a graduate student in the Psychology program at Rhode Island College is conducting this research in collaboration with the faculty advisor Dr. Thomas Malloy, a professor at Rhode Island College.

Why this Study is Being Done (Purpose)

The purpose of this study is to understand how one's personality dimensions influence various interpersonal behaviors, and feelings about oneself. Please read the following information carefully and ask the researcher if there is anything that is not clear, or if you would like more information.

What You Will Have to Do (Procedures)

Participating in this study is voluntary and it is expected to take no more than 20 minutes. This research involves you reading questions about yourself and answering to the best of your ability. Questions about your personality, alcohol use, and various interpersonal behaviors will be asked. Attention checks will be administered throughout the survey to ensure attentiveness. Attention checks are used to ensure that participants are reading through each question and responding thoughtfully and accurately. The survey will be administered through the online site Prolific.

Risks or Discomforts

You may find that answering some questions is upsetting. Some questions are sensitive and ask about feelings towards yourself and feelings of loneliness. You can skip any questions you don't want to answer, and you can stop the survey at any time. The risks for participating in this study



Rhode Island College Institutional Review Board

Approval #: _____

Expiration date: _____

Participant's Initials: _____

Document version: _____

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are higher than what you would experience during your typical daily activities. If for any reason you experience any discomfort due to your participation, you should contact The United Way <https://www.unitedway.org/find-your-united-way/> where you can gain access to support where you live. Those who choose to access the United Way can expect to find available resources in their area to support them if they find participating in this study to be upsetting. More information about available mental health resources can be found here:

<https://www.211unitedway.org/search-category/mental-health-treatment-and-support/>. The United Way also offers resources to assist those who may be dealing with substance use, more information can be found here: <https://www.unitedwayri.org/get-help/2-1-1/opioid-addiction-recovery/>

For participants living in the United States, the Substance Abuse and Mental Health Services Administration (SAMHSA) offers a free national helpline for those seeking mental health support. The national helpline phone number can be found here: <https://www.samhsa.gov/find-help/national-helpline>

For participants living in England, Mind offers free helplines for those seeking mental health support. The helpline phone numbers can be found here: <https://www.mind.org.uk/information-support/guides-to-support-and-services/crisis-services/helplines-listening-services/>

Benefits of Being in the Study

Being in this study will not benefit you directly.

Compensation

To thank you for your time, you will receive \$3 through Prolific. Participants who fail attention checks will not receive compensation.

Deciding Whether to be in the Study

Being in the study is your choice to make. Nobody can force you to be in the study. You can choose not to be in the study, and nobody will hold it against you. You can change your mind and end participation in the study at any time, and you do not have to give a reason. If you decide to quit, nobody will hold it against you. Please note that if a participant fails attention checks, they will not be compensated for their participation.

How Your Information will be Protected

Because this is a research study, results will be summarized across all participants and shared in reports that we publish and presentations that we give. Your name will not be used in any reports. We will take several steps to protect the information you give us so that you cannot be identified. Instead of using your name, your information will be given a code number. The information will reside on the Prolific server which is secured. The data will be downloaded to laboratory computers which are password protected. Only members of the research team will have access to data files. The only time I would have to share information from the study is if it

is subpoenaed by a court, or if you are suspected of harming yourself or others. In this case, I would have to report it to the appropriate authorities. Also, if there are problems with the study, the records may be viewed by the Rhode Island College review board responsible for protecting the rights and safety of people who participate in research. The information will be kept for a minimum of three years after the study is over.

Who to Contact

If you think you were treated badly in this study, have complaints, or would like to talk to someone other than the researcher about your rights or safety as a research participant, please contact the Institutional Review Board at IRB@ric.edu.

Statement of Consent

I have read and understand the information above. I am choosing to be in the study “Personality and Behavior.” I can change my mind and quit at any time, and I don’t have to give a reason, and realize I will not receive payment unless I complete the study, and pass attention checks. I will contact the researcher with any questions that come up later. I am at least 18 years of age.

By continuing to the study, you are consenting to participate. If you do not consent, please do not continue.

Appendix E: Recruitment

Description of the Study on the Prolific Participant Recruitment Platform

PERSONALITY AND BEHAVIOR

To participate in this study, you must be at least 18 years of age, and be an English-speaking resident of either the United States of America, or the United Kingdom. You will be asked questions about your personality traits, frequency of alcohol use, interpersonal behaviors, and feelings about yourself. The questions you will be asked include topics that may not be commonly discussed with people in your everyday life. This survey will take approximately 20 minutes to complete, and participants will be compensated in the amount of \$3 via the Prolific site.