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CYBER INTIMATE PARTNER VICTIMIZATION AND ITS ASSOCIATION WITH DEPRESSION AND ALCOHOL USE AMONG HISPANIC EMERGING ADULTS: IDENTIFYING PROTECTIVE FACTORS

A Thesis

by

JORGE I. CANTU

Submitted to the Graduate College of The University of Texas Rio Grande Valley In partial fulfillment of the requirements for the degree of

MASTER OF ART

December 2020

Major Subject: Clinical Psychology

CYBER INTIMATE PARTNER VICTIMIZATION AND ITS ASSOCIATION WITH

DEPRESSION AND ALCOHOL USE AMONG HISPANIC EMERGING

ADULTS: IDENTIFYING PROTECTIVE FACTORS

A Thesis by JORGE I. CANTU

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Dr. Ruby Charak Chair of Committee

Dr. Arthur Cantos Committee Member

Dr. Jason Popan Committee Member

December 2020

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ABSTRACT

Cantu, Jorge I., <u>Cyber Intimate Partner Victimization and its Association with Depression and</u> <u>Alcohol use among Hispanic Emerging Adults: Identifying Protective Factors</u>. Master of Art (MA), December 2020, 127 pp., 42 tables, 34 figures, references, 128 titles.

The advent of modern technology has inadvertently created newer avenues for intimate partner victimization (IPV) to transpire. This study investigated whether among Hispanic emerging adults psychological, sexual, and stalking intimate partner cybervictimization (cyber IPV) types were uniquely associated with depression and alcohol use; whether there were additive effects of cyber IPV types on depression and alcohol use; and to test whether cognitive reappraisal, self-compassion, and flourishing served as protective factors by moderating the unique effect of each cyber IPV type and the effect of cyber IPV multi-victimization on depression and alcohol use.

Participants were 1,129 Hispanic emerging adults in the age range of 18 to 29 years (M = 20.53, SD = 2.44; 72.5% female) attending the University of Texas Rio Grande Valley. Findings indicated that nearly 73% of the sample endorsed at least one type of cyber IPV. Multiple regression analysis showed that psychological, sexual and stalking cyber IPV were uniquely associated with depression and that psychological and sexual cyber IPV were uniquely associated with alcohol use. Additive models showed that exposure to one type of cyber IPV and exposure to three types of cyber IPV were associated to depression. Only exposure to three types of cyber IPV was associated with alcohol use. Cognitive reappraisal and flourishing were

iii

identified as protective factors, but their protective role depended on the association between cyber IPV type and depression and alcohol use.

DEDICATION

To my wife, Samantha Falcon and to my parents Felipe Cantu and Rosario Segura. Thank you for the continuous support and unconditional love.

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This project was made possible through the mentorship and guidance of Dr. Ruby Charak, whose direction, editing, and expertise have shaped this project as well as my career. Also, many thanks to my committee members, Dr. Arthur Cantos and Dr. Jason Popan, for embarking in this project with me and their valuable feedback.

TABLE OF CONTENT

| Page |
|---------------------------------------|
| ABSTRACT iii |
| DEDICATIONv |
| ACKNOWLEGMENTSvi |
| TABLE OF CONTENTSvii |
| LIST OF TABLESxi |
| LIST OF FIGURES xiii |
| CHAPTER I. INTRODUCTION1 |
| Cyber IPV5 |
| Cyber IPV and Mental Health Concerns7 |
| Protective Factors11 |
| Flourishing11 |
| Self-Compassion13 |
| Cognitive Reappraisal15 |
| The Present study17 |
| Aim 118 |
| Aim 218 |
| CHAPTER II. METHOD |

| Data | |
|--|----|
| Participants | |
| Measures | 21 |
| Cyber Intimate Partner Victimization | |
| Flourishing | |
| Self-compassion | |
| Cognitive Reappraisal | |
| Depression | |
| Alcohol Use | |
| Procedure | |
| Data Analyses | |
| Multiple Regression Analyses | |
| Moderation Analyses | |
| CHAPTER III. RESULTS | |
| Descriptive Statistics of Cyber IPV, Mental Health Concerns, and Protective Factors | 29 |
| Cyber IPV, Mental Health Concerns, and Protective Factors Correlation | 29 |
| Cyber IPV Types Unique Effect on Mental Health Concerns | |
| Additive Effect of Cyber IPV Types on Mental Health Concerns | |
| Cyber IPV Types by Protective Factors Interaction Effect on Mental Health | |
| Interaction Effect of Cyber IPV Types and Cognitive Reappraisal on Depression | |
| Interaction Effect of Cyber IPV Types and Cognitive Reappraisal on Alcohol Use | |

| | Interaction Effect of Cyber IPV Types and Self-Compassion on Depression | 34 |
|------------|--|----|
| | Interaction Effect of Cyber IPV Types and Self-Compassion on Alcohol Use | 34 |
| | Interaction Effect of Cyber IPV Types and Flourishing on Depression | 35 |
| | Interaction Effect of Cyber IPV Types and Flourishing on Alcohol Use | 35 |
| | lative Cyber IPV by Protective Factors Interaction Effect | 37 |
| | Interaction Effect of Cumulative Cyber IPV and Cognitive Reappraisal on Depression | 37 |
| | Interaction Effect of Cumulative Cyber IPV and Cognitive Reappraisal on Alcohol Use | 37 |
| | Interaction Effect of Cumulative Cyber IPV and Self-Compassion on depression | 38 |
| | Interaction Effect of Cumulative Cyber IPV and Self-Compassion on Alcohol Use | 38 |
| | Interaction Effect of Cumulative Cyber IPV and Flourishing on Depression | 39 |
| | Interaction Effect of Cumulative Cyber IPV and Flourishing on Alcohol Use | 39 |
| CHAPTER IV | V. DISCUSSION | 41 |
| Uniqu | e effects of cyber IPV types | 41 |
| Additi | ive effects of cyber IPV types | 44 |
| Role o | of protective factors | 45 |
| Presen | nt study's implications | 48 |
| Limita | ations | 50 |

| Implications for research and practice | 51 |
|--|----|
| Summary of major findings | 53 |
| REFERENCES | 54 |
| APPENDIX A | 65 |
| APPENDIX B | 68 |
| APPENDIX C | 85 |
| APPENDIX D | 93 |
| APPENDIX E | |
| BIOGRAPHICAL SKETCH | |

LIST OF TABLES

| Table 1: Cyber IPV Types Unique Effect on Mental Health Concerns 30 |
|---|
| Table 2: Additive Effect of Cyber IPV Types on Mental Health Concerns |
| Table 3: Descriptive Statistics of Cyber IPV, Health Concerns, Protective Factors, and Gender |
| Table 4: Bivariate Correlations of Cyber IPV, Mental Health Concerns, Protective Factors, and Gender |
| Table 5: Interaction Effect of Psychological Cyber IPV and Cognitive Reappraisal on Depression |
| Table 6: Conditional Effects of Psychological Cyber IPV on Depression at Values of Cognitive Reappraisal |
| Table 7: Interaction Effect of Sexual Cyber IPV and Cognitive Reappraisal on Depression |
| Table 8: Conditional Effect of Sexual Cyber IPV on Depression at Values of Cognitive Reappraisal |
| Table 9: Interaction Effect of Stalking Cyber IPV and Cognitive Reappraisal on Depression |
| Table 10: Conditional Effects of Stalking on Depression at Values of Cognitive Reappraisal |
| Table 11: Interaction Effect of Psychological Cyber IPV and Cognitive Reappraisal on Alcohol Use |
| Table 12: Conditional Effects of Psychological Cyber IPV on Alcohol Use at Values of Cognitive Reappraisal |
| Table 13: Interaction Effect of Sexual Cyber IPV and Cognitive Reappraisal on Alcohol Use |

| Conditional Effect of Sexual Cyber IPV on Alcohol Use at Values of Cognitive Reappraisal | 1 |
|---|---|
| Interaction Effect of Stalking Cyber IPV and Cognitive Reappraisal on Alcohol Use | 4 |
| Interaction Effect of Psychological Cyber IPV and Self-Compassion on Depression | 6 |
| Interaction Effect of Sexual Cyber IPV and Self- Compassion on Depression | 8 |
| Interaction Effect of Stalking Cyber IPV and Self-Compassion on Depression | 9 |
| Interaction Effect of Psychological Cyber IPV and Self-Compassion on Alcohol use | 0 |
| Interaction Effect of Sexual Cyber IPV and Self- Compassion on Alcohol Use | 1 |
| Interaction Effect of Stalking Cyber IPV and Self-Compassion on Alcohol Use | 2 |
| Interaction Effect of Psychological Cyber IPV and Flourishing on Depression | 4 |
| Conditional Effects of Psychological Cyber IPV on Depression at Values of Flourishing | 4 |
| Interaction Effect of Sexual Cyber IPV and Flourishing on Depression | 7 |
| Interaction Effect of Stalking Cyber IPV and Flourishing on Depression | 8 |
| Conditional Effects of Stalking on Depression at Values of Flourishing | 8 |
| Interaction Effect of Psychological Cyber IPV and Flourishing on Alcohol Use | 1 |
| Conditional Effects of Psychological Cyber IPV on Alcohol Use at Values of Flourishing10 | 1 |
| | of Cognitive Reappraisal 8 Interaction Effect of Stalking Cyber IPV and Cognitive Reappraisal 8 Interaction Effect of Psychological Cyber IPV and Self-Compassion 8 Interaction Effect of Sexual Cyber IPV and Self-Compassion 8 Interaction Effect of Sexual Cyber IPV and Self-Compassion 8 Interaction Effect of Stalking Cyber IPV and Self-Compassion 8 Interaction Effect of Stalking Cyber IPV and Self-Compassion 9 Interaction Effect of Psychological Cyber IPV and Self-Compassion 9 Interaction Effect of Sexual Cyber IPV and Self-Compassion 9 Interaction Effect of Sexual Cyber IPV and Self-Compassion 9 Interaction Effect of Sexual Cyber IPV and Self-Compassion 9 Interaction Effect of Stalking Cyber IPV and Self-Compassion 9 Interaction Effect of Stalking Cyber IPV and Flourishing 9 Interaction Effect of Stalking Cyber IPV and Flourishing 9 Interaction Effect of Sexual Cyber IPV and Flourishing 9 Interaction Effect of Stalking Cyber IPV and Flourishing 9 Interaction Effect of Stalking Cyber IPV and Flourishing 9 Interaction Effect of Stalking Cyber IPV and Flourishing 9 Interaction Effect of Stalking Cyber IPV and Flourishin |

| Table 29: Interaction Effect of Sexual Cyber IPV and Flourishing on Alcohol Use | |
|---|-----|
| Table 30: Conditional Effect of Sexual Cyber IPV on Alcohol Use at Values of Flourishing | 104 |
| Table 31: Interaction Effect of Stalking Cyber IPV and Flourishing on Alcohol Use | 107 |
| Table 32: Conditional Effect of Stalking Cyber IPV on Alcohol Use at Values of Flourishing | 107 |
| Table 33: Interaction Effect of Cumulative Cyber IPV and Cognitive Reappraisal on Depression | 111 |
| Table 34: Conditional Effects of Cumulative Cyber IPV on Depression at Values of Cognitive Reappraisal | 112 |
| Table 35: Interaction Effect of Cumulative Cyber IPV and Cognitive Reappraisal on Alcohol Use | 114 |
| Table 36: Conditional Effects of Cumulative Cyber IPV on Alcohol Use at Values of Cognitive Reappraisal | 115 |
| Table 37: Interaction Effect of Cumulative Cyber IPV and Self-Compassion on Depression | 117 |
| Table 38: Interaction Effect of Cumulative Cyber IPV and Self- Compassion on Alcohol Use | 119 |
| Table 39: Interaction Effect of Cumulative Cyber IPV and Flourishing on Depression | 121 |
| Table 40: Conditional Effects of Cumulative Cyber IPV on Depression at Values of Flourishing | 122 |
| Table 41: Interaction Effect of Cumulative Cyber IPV and Flourishing on Alcohol Use | 124 |
| Table 42: Conditional Effects of Cumulative Cyber IPV on Alcohol Use at Values of Flourishing | 125 |

LIST OF FIGURES

| Figure 1: Association between psychological cyber IPV and depression at different levels of cognitive reappraisal70 |
|--|
| Figure 2: The Johnson-Neyman graph for the model relating depression to psychological cyber IPV, cognitive reappraisal and their interaction71 |
| Figure 3: Association between sexual cyber IPV and depression at different levels of cognitive reappraisal73 |
| Figure 4: The Johnson-Neyman graph for the model relating depression to sexual cyber IPV, cognitive reappraisal and their interaction74 |
| Figure 5: Association between stalking cyber IPV and depression at different levels of cognitive reappraisal76 |
| Figure 6: The Johnson-Neyman graph for the model relating depression to stalking cyber IPV, cognitive reappraisal and their interaction77 |
| Figure 7: Association between psychological cyber IPV and alcohol use at different levels of cognitive reappraisal79 |
| Figure 8: The Johnson-Neyman graph for the model relating alcohol use to psychological cyber IPV, cognitive reappraisal and their interaction |
| Figure 9: Association between sexual cyber IPV and alcohol use at different levels of cognitive reappraisal82 |
| Figure 10: The Johnson-Neyman graph for the model relating alcohol use to sexual cyber IPV, cognitive reappraisal and their interaction |
| Figure 11: Association between stalking cyber IPV and alcohol use at different levels of cognitive reappraisal84 |
| Figure 12: Association between psychological cyber IPV and depression at different levels of self-compassion |

| Figure 13: Association between sexual cyber IPV and depression at different levels of self-compassion | .88 |
|--|-----|
| Figure 14: Association between stalking cyber IPV and depression at Different levels of self-compassion | .89 |
| Figure 15: Association between psychological cyber IPV and alcohol use at different levels of self-compassion | .90 |
| Figure 16: Association between sexual cyber IPV and Alcohol use at different levels of self-compassion | .91 |
| Figure 17: Association between stalking cyber IPV and alcohol use at Different levels of self-compassion | .92 |
| Figure 18: Association between psychological cyber IPV and depression at different levels of flourishing | .95 |
| Figure 19: The Johnson-Neyman graph for the model relating depression to psychological cyber IPV, flourishing and their interaction | .96 |
| Figure 20: Association between sexual cyber IPV and depression at different levels of flourishing | .97 |
| Figure 21: Association between stalking cyber IPV and depression at different levels of flourishing | .99 |
| Figure 22: The Johnson-Neyman graph for the model relating depression to stalking cyber IPV, flourishing and their interaction1 | 100 |
| Figure 23: Association between psychological cyber IPV and alcohol use at different levels of flourishing1 | 102 |
| Figure 24: The Johnson-Neyman graph for the model relating alcohol use to psychological cyber IPV, flourishing and their interaction | 103 |
| Figure 25: Association between sexual cyber IPV and alcohol use at different levels of flourishing | 105 |
| Figure 26: The Johnson-Neyman graph for the model relating alcohol use to sexual cyber IPV, flourishing and their interaction | 106 |
| Figure 27: Association between stalking cyber IPV and alcohol use at different levels of flourishing | 108 |

| 0 | The Johnson-Neyman graph for the model relating alcohol use to talking cyber IPV, flourishing and their interaction |
|---|---|
| - | Association between cumulative cyber IPV and depression t different levels of cognitive reappraisal |
| - | Association between cumulative cyber IPV and alcohol use t different levels of cognitive reappraisal |
| - | Association between cumulative cyber IPV and depression t different levels of self-compassion |
| | Association between cumulative cyber IPV and alcohol use at lifferent levels of self-compassion |
| 0 | Association between cumulative cyber IPV and depression at afferent levels of flourishing |
| | Association between cumulative cyber IPV and alcohol use at afferent levels of flourishing |

CHAPTER I

INTRODUCTION

Intimate partner violence is a public health issue that is significant due to its high rates of prevalence (Carney & Barner, 2012; Smith et al., 2017) and risk of aversive effects on physical and mental health (Dillon et al., 2013; Kaura & Lohman, 2007). In the last decade, the advent of information communication technologies (ICTs, e.g., including social media, text messaging, electronic email, and forums/blogs) have indivertibly resulted in the formation of a new modality to victimize an intimate partner – termed cyber intimate partner victimization (cyber IPV) (Brown & Hegarty, 2018; Caridade, 2019). Extant literature of cyber IPV suggest parallels to traditional intimate partner victimization (face-to-face IPV), including that it is prevalent (Borrajo et al., 2015a; Marganski & Melander, 2018) and associated with deleterious effects on mental health (Lindsay et al., 2016; Wolford-Clevenger et al., 2016; Wood et al., 2020). Analogous to face-to-face IPV, cyber IPV entails the experience of delineated forms of violent behaviors. Empirical evidence indicates that these violent behaviors can be factored into psychological, sexual, and stalking cyber IPV facets (Drouin et al., 2015; Reed et al., 2017; Watkins et al., 2018; Zapor et al., 2017).

Recently, literature on cyber IPV has started to focus on young adults (Caridade, 2019; Trujillo et al., 2020; Watkins et al., 2018). Most studies of cyber IPV on adults in the U.S. consists of predominantly White non-Hispanic samples (e.g., Melander & Hughes, 2018; Sargent et al., 2016), resulting in a dearth of research dedicated to investigating this phenomenon within the U.S. Hispanic population. The prevalence of cyber IPV and its associations with depression and alcohol use in Hispanics is an uncharted area of this form of interpersonal violence. In contrast to cyber IPV literature, Hispanics' face-to-face IPV prevalence and its associations with depression and alcohol use are documented to an extent (Caetano et al., 2005; Gonzalez-Guarda et al., 2009; Schafer et al., 2004; Sullivan et al., 2009). Literature on these areas and their comparison to those of White non-Hispanics, can give insight into the significance of investigating cyber IPV and its associations with depression and alcohol use among this growing ethnic minority group in the United States.

Substantive number of Hispanic adults in the U.S. experience face-to-face IPV. Most studies have reported that they have higher intimate partner violence crude prevalence rates than White non-Hispanics (Caetano et al., 2000; Caetano et al., 2005; Clark et al., 2016; Field & Caetano, 2003; Straus & Smith, 1995). In most of these studies, further investigation of the prevalence rate difference found that sociodemographic factors, alcohol use, impulsivity, and family history of violence were attributed to the observed difference. Kantor and colleagues' (1994) findings attest to the effects of ethnic/racial related sociodemographic and psychological factors. In their study, the authors found that the odds of intimate partner violence among Hispanic couples were not statistically different than those of White couples after accounting for norms regarding violence approval, age, and economic stressors. However, findings from Clark and colleagues (2016), and Field and Caetano (2003) contradict the Kantor et al. (1994) findings - and argue that Hispanics disproportionately experience intimate partner violence in comparison to non-Hispanic Whites, irrespective of sociodemographic factors, alcohol use and related problems, and psychosocial variables. Additionally, empirical evidence suggests that Hispanics have disproportionate prevalence rates of depression and alcohol use - compared to White non-

Hispanics (Mendelson et al, 2008; Substance Abuse and Mental Health Service Administration [SAMHSA], 2019). A meta-analytic review assessing the difference in prevalence of depressive symptoms among Latinos and non-Latino Whites found that Latinos reported more depressive symptoms than non-Latino Whites, although the effect size was small (Mendelson et al., 2008). Although Latino comprise a subsection of the Hispanic population, the National Survey on Drug Use and Health conducted by the SAMHSA, reported that alcohol use lifetime prevalence and heavy alcohol use in the past month was higher among White non-Hispanics than Hispanics, while their rates of binge drinking in the past month were similar.

The increased depression prevalence is as well observed in Hispanic victims of intimate partner violence when compared to White non-Hispanic victims. Literature shows that Hispanic victims of intimate partner violence are more susceptible to depression than White non-Hispanics (for a review see Cummings et al., 2013; Gonzalez-Guarda et al., 2009; Montalvo-Liendo et al., 2016; White & Stayen, 2015). For instance, Caetano and Cunradi (2003) found that depression rates among victims were greater for women who identified as Hispanic than White non-Hispanic. The relation of alcohol use with face-to-face IPV across these race and ethnicity appears more complex. Research comparing ethnicities/races differences in this association have predominately concentrated on testing alcohol use as a precursor for victimization (e.g., Schafer et al., 2004). Nevertheless, most of these studies are cross-sectional. Few studies that have investigated differences in alcohol use among Hispanics and White non-Hispanics as an outcome of face-to-face IPV have yielded inconsistent findings. Despite the differences in methodology, and above the conflicting ethnic difference in alcohol use associated to face-to-face IPV, research suggest that victims of intimate partner violence who identify as Hispanics are affected

by alcohol use (Caetano et al., 2000; Caetano et al., 2001; dehu & Lo, 2016; Field & Caetano, 2003; Lacey et al., 2013; Luo et al., 2020; Nowotny & Grave, 2013; Sullivan et al., 2009).

Integrated, studies suggest that Hispanics have distinct cultural, societal, and/or psychological dispositions that affects their risk of face-to-face IPV and its associations to depression and alcohol use. The aforementioned factors may also affect Hispanics association with cyber IPV; hence, the importance on conducting research on this form of violence among this ethnic minority. Furthermore, Hispanics were the largest minority group in the U.S. accounting for approximately 18% of the U.S. population in 2017 (Noe-Bustamante & Flores, 2019). Prevalence studies on Hispanics' ICT usage indicated that 90% below the age of 50 years have access to the internet, 80% use their mobile devices to access the internet, and 65% are active on social media (Brown et al., 2016; Perrin, 2015). Concerningly, research has found that face-to-face IPV increases the risk of cyber IPV (Reed et al., 2016; Sargent, 2016; Zapor et al., 2017). Ultimately, a large segment of the Hispanic population in the U.S., which accounted for nearly one-fifth of the total population, are at risk of cyber IPV and its aversive repercussions of depression and alcohol use.

The present study addresses the gaps in the literature of cyber IPV pertaining to Hispanic emerging adults in the U.S. by investigating the unique and additive associations between forms of cyber IPV and depression and alcohol use among this ethnic minority. Emerging adulthood, ages 18 to 29, is a pivotal developmental phase to study cyber IPV for its experiences of establishing long-term intimate partner relationships, ambivalence about identifying as an adult, lack of fulfillment of being an independent individual, identity exploration, and engaging in risky behavior (Arnett, 2000; Nelson & Barry, 2005). In addition, in an effort to inform development of suitable preventive and psychotherapy interventions to attenuate plausible depression and

alcohol use related to cyber IPV, cognitive reappraisal, self-compassion, and flourishing were investigated to test their protective effect on these associations. Continuing forward mental health concerns will refer to depression and alcohol use.

Cyber IPV

Cyber intimate partner victimization is a unique form of interpersonal victimization. Its domain (i.e., cyberspace) and presentation of violent behaviors differentiate it from face-to-face IPV. These distinctive features of cyber IPV can be illustrated through three aspects. One aspect is the virtually nonexistent physical and social cues that in person interactions may provide (Dehue et al., 2008; Denegri-Knott & Taylor, 2005). A victim's physical reactions to violent cyber IPV behaviors may not have the opportunity to function as deterrents to a partner's perpetration – possibly perpetuating the violent practice (Postmess et al., 1998). In that same vein, perpetrators may be less inhibited in cyber interactions and aggress through cyberspace when they would not otherwise in person (Li, 2006). Another aspect is that communication through ICTs may be permanent. Private messages can be viewed repeatedly or forwarded to a group or made public. In either instance, such actions could cause distress to the victim (Runions et al., 2013; Slonje & Smith, 2008). Lastly, most ICTs are mobile and easy to access – which allows victims of cyber IPV to experience cyber violent behaviors anywhere and at any time, regardless of physical proximity (Runions et al., 2013).

As mentioned, cyber IPV is multifaceted. This form of interpersonal violence entails being a victim of psychological, sexual, or stalking cyber intimate partner violence - including any of their combined multi-victimization (Cantu & Charak, 2020; Trujillo et al., 2020; Watkins et al., 2018). Psychological cyber IPV is defined by being put down, harassed, insulted, or emotionally hurt by an intimate partner publicizing private or personal information about oneself

on social media or group instant/text messaging (e.g., WhatsApp) ICTs – and/or by information received from an intimate partner through ICTs (Leisring & Giumetti, 2014; Watkins et al., 2018). Sexual cyber IPV entails being requested or pressurized to send sexual content of oneself, and/or pressured to engage in sexual acts against one's wishes by an intimate partner via ICTs. In addition, it includes receiving unsolicited sexual content via ICTs from an intimate partner (Watkins et al., 2018; Zweig et al., 2013). Finally, stalking cyber IPV includes having one's ICTs and accounts accessed by an intimate partner without permission and/or being monitored by an intimate partner through ICTs and devices, such as a global positioning system ([GPS] Schnurr et al., 2013; Watkins et al., 2018).

Empirical evidence supports constructing cyber IPV as a multifaceted form of interpersonal violence – factoring it into psychological, sexual, and stalking cyber IPV types. However, the construct of cyber IPV in the literature is not uniform. Reviews on cyber IPV convey it is a complex form of intimate partner violence with varied terms, definitions, behaviors, and constructs (Brown & Hegarty, 2018; Gámez-Guadix et al., 2018). An aspect of this complexity can be observed in the varied ways cyber IPV instruments have termed and conceptualized this form of violence (Brown & Hegarty, 2018; Gámez-Guadix et al., 2018). For example, Borrajo and colleagues' (2015b) *Cyber Dating Abuse Questionnaire* gauges cyber dating abuse as a two-dimensional form of violence, namely, direct aggression and monitoring/ control. Direct aggression comprises 10 behaviors that pertain to psychological violence and one that pertains to sexual violence, whereas monitoring/control was made up of nine behaviors that pertained to stalking. Relatedly, in the *Partner Cyber Abuse Questionnaire*, partner cyber abuse is assessed as a unidimensional form of violence (Wolford-Clevenger et al., 2016). The Partner Cyber Abuse Questionnaire comprises nine behaviors that pertain to psychological violence or stalking. The present study concurs with the notion of delineating and assessing cyber IPV as psychological, sexual, and stalking forms of victimization. This is consistent with studies that have provided evidence of the independence of these types of cyber IPV (Drouin et al., 2015; Reed et al., 2017; Watkins et al., 2018; Zapor et al., 2017).

Cyber IPV and Mental Health Concerns

Cyber IPV types appear to be prevalent among Hispanic adults. Cantu and Charak (2020) corroborate this notion. In their study, the authors investigated cyber IPV in Hispanic emerging adults and found that slightly more than half of the sample experienced psychological cyber IPV; 25% endorsed sexual cyber IPV; and about 63% reported being stalked by an intimate partner through ICTs. In addition, about a third and one-fifth of Hispanic participants stated they had experienced two types and all three types of cyber IPV, respectively. Curry and colleagues (2020) as well demonstrate the cyber IPV prevalence among the ethnic minority. In their study, the authors examined cyber IPV on a sample of primarily Hispanic participants (86%) and reported that about 68% were victims of at least one cyber IPV behavior related to psychological victimization. To the best of my knowledge, to date only Cantu and Charak (2020) have examined psychological, sexual, and stalking and multi-victimization of these cyber IPV types and their association with mental health exclusively among Hispanic emerging adults.

Despite the dearth of research on Hispanics, literature on cyber IPV conveys that these forms of victimization are pervasive among young adults. As an illustration, Zapor and colleagues (2017) conducted a study on college students to examine gender difference in the prevalence of lifetime psychological cyber IPV in current dating relationships and found that 74% of male participants and 72% of female participants reported being victims of at least one act of technology-mediated dating violence. Within a sample of 342 undergraduate students, it

was reported that one out of five students were victims of online harassment perpetrated by a dating partner (Lindsay et al., 2016). Another study investigating sexting, including coercing a partner to send sexually explicit photos of themselves, found that 20% of the sample reported being coerced into it (Drouin et al., 2015). In addition, Reed and colleagues (2015) found that among university students in a dating relationship 30% endorsed being victims of electronic intrusion in the past year. Extant studies of cyber intimate partner violence multi-victimization, presently, only include Cantu and Charak (2020) and Trujillo and colleagues (2020). In the latter study, multi-victimization of psychological, sexual, and stalking cyber IPV were examined among lesbian, gay, and bisexual emerging adults (LGB). Their results showed that about 17% of LGB adults endorsed two types of cyber IPV and 29% reported all three types of cyber IPV (Trujillo et al., 2020). Practically only a couple of studies have addressed multi-victimization of cyber IPV types. Identifying multi-victimization is significant to comprehend how cyber intimate partner violence presents in victims - and to study how these differential presentations affect health.

It is evident that the dearth of studies on cyber IPV in Hispanics, as mentioned above, would render a lack research on its association with alcohol use and depression among the ethnic minority – but it is important to underscore this deficit to promote research development in these areas. Nonetheless, Cantu and Charak (2020) allude to the relation of cyber IPV types and depression among Hispanics. The authors found that psychological and sexual cyber IPV were uniquely associated to depression – stalking cyber IPV was not. Prior studies on young adults have established an association between cyber IPV and depression and alcohol use. Drouin et al. (2015) investigated cyber sexual coercion victimization among young adults and found that it was associated with an increase in symptoms of depression. Moreover, Sargent and colleagues

(2016) conducted a study that examined the relation between cybervictimization and depressive symptoms among first-year college students in a romantic relationship and found an association between the two. Bennett and colleagues (2011) found that alcohol use was associated with dating partner electronic victimization in female college students. Watkins and colleagues (2018) as well discovered a positive correlation between cyber IPV types and alcohol use. The notion that victimization is associated with depression is consistent with Beck's *cognitive theory of depression* (Beck, 1967). Beck stated that a stressful life event can lead an individual to develop a negative self-schema. Individuals that have negative self-schemas are inclined to engage in negative information processing biases that can cause depression. In addition, evidence suggests victims of interpersonal violence cope with the emotional distress induced by the traumatic event by consuming alcohol. This practice is in line with the *self-medication hypothesis*, which asserts individuals use alcohol or drugs to manage negative affective and mood states (Khantzian, 1997).

Literature on cyber IPV's association to mental health concerns in adults has mainly found simple effects (Drouin et al., 2015; Sargent et al, 2016; Watkins et al., 2018; Wolford-Clevenger et al., 2016). These results are due to the statistical models employed (i.e., correlation or simple regression analysis) to analyze relationships - and the fact that studies either assess cyber IPV as a single facet form of violence or investigate only one form of cyber IPV of the proposed three. Only a small number or studies have found unique effects of cyber IPV types on mental health concerns after holding alternative forms of cyber IPV constant; however, majority of the studies do not investigate psychological, sexual, and stalking cyber IPV concurrently (e.g., Borrajo & Gámez-Guadix, 2016). Caution must be exercised when interpreting these types of results as these studies do not take into account the potential effects of other types of cyber IPV –

even though literature has found cyber IPV to be a three factor form of violence and that they tend to co-occur (Cantu & Charak, 2020; Reed et al., 2017; Trujillo et al., 2020). Studies that investigate the effect of a cyber IPV without accounting for the other types risk overestimating the effect of a particular cyber IPV type.

In a similar vein, acknowledging that victims of cyber intimate partner violence are often multi-victimized, only Cantu and Charak (2020) and Trujillo and colleagues (2020) have studied the additive effects of cyber IPV types among emerging adults. The former study found that among Hispanics an increase of cyber IPV types was associated with an increment in depression. In the latter study, LGB emerging adult's alcohol use was associated to experiencing all three types of cyber IPV as opposed to one or two types. Interpersonal violence research has widely used the additive effect model to examine the association between health and multi-victimization (Sabina& Straus, 2008; Senn & Carey, 2010; Stoicescu et al., 2019). An additive effect of multi-victimization aligns with the cumulative risk theory, which posits that accumulation of different forms of victimization increase the risk and effect of an aversive outcome (Rutter, 1979). A feature of the additive effect model is that it weighs all victimization types equally in effecting health outcomes.

Acknowledgment that cyber IPV types may have unique effects, and that victims of cyber intimate partner violence are multi-victimized, is warranted to recognize presentations of cyber IPV and their associations with mental health concerns among Hispanic emerging adults. Assessing cyber IPV through these notions would produce more detailed research so social and individual practices can manage this form of violence and attenuate related deleterious effects.

Protective Factors

Flourishing

The subject of wellbeing has a long history dating back to ancient Greek philosophy. Ethical philosophers have vastly theorized on what constitutes a good life. As a result, the field has conceived two main perspectives: hedonism and eudaimonism (Ryan & Deci, 2001). The hedonic perspective attributes wellbeing to attainment of pleasure and enjoyment, and it is understood as a subjective state of happiness. The eudaimonic perspective maintains that wellbeing is achieved through realizing one's true nature. Initial psychological empirical research on wellbeing mostly focused on subjective wellbeing (hedonism) (Ryff, 2014). These research endeavors measured happiness, life satisfaction, and positive and negative affect as determinants (Huta & Waterman, 2014; Ryan & Deci, 2001). Despite the large work on subjective wellbeing, arguments against the hedonic view have been contended. Eudaimonic theorist state that not all pleasures that a person experiences produce wellbeing; some outcomes may cause destructive consequence to the individual (Ryan & Deci, 2001). Early psychological interest in the eudaimonic perspective of wellbeing could be viewed in the humanistic (Maslow, 1968), existential (Frankl, 1959), developmental (Erikson, 1959), and personality (Allport, 1961) works on positive human functioning. These seminal works have led to the extant empirical research on eudaimonic wellbeing. Ryff (1989) addressed the neglect of essential features and the unfounded theory of subjective wellbeing and developed a model of psychological wellbeing that underscored features including, self-acceptance, positive relations with others, autonomy, environmental mastery, and personal growth. Ryan and colleagues (2008) conceptualized wellbeing as being composed of autonomy, competence, and relatedness, pursuit of intrinsic goals and values, personal growth, relationships and community contributions, and evoking

motivation. Ultimately, the predominant view of wellbeing is that it is ascribed to complex interactions of psychological, personality, and social characteristics that depict a form of flourishing (psychological and social prosperity).

Reviews on how psychosocial flourishing associates to health (Jeste et al., 2015; Ryff, 2014) have elucidated on the notable influence wellbeing has on depression and alcohol use (Keyes, 2005; Low, 2011; McGaffin et al., 2015; Ryff, 2014). Low (2011) investigated the extent of flourishing in first year college students and its relation to depression. Of the sample, 69.1% were determined to be flourishing, 29.0% were moderately mentally healthy, and 1.9% were languishing. Furthermore, 12.2% of those who were flourishing, 41.1% who were moderately mentally healthy, and 75% who were languishing were categorized as having symptoms of depression. Statistically significant differences between these groups were observed. In sum, young adults who exhibit flourishing are less likely to be depressed than those who are languishing. In a longitudinal study, patients attending a residential based alcohol and drug abuse treatment program had their mental health wellbeing evaluated at admittance, 3month and 12-month post discharge follow-up with relation to their substance use status (McGaffin et al., 2015). Preliminary analysis indicated that flourishing was negatively correlated to substance use. During the admittance phase (baseline), flourishing (21.9%) and languishing (23.8%) rates among patients were relative. At post-treatment follow-ups, those former patients who exercised abstinence after being discharged experienced significantly better mental health wellbeing than those who continued to use alcohol and drugs. Statistically significant differences evidenced that for those patients flourishing increased and languishing decreased at the followup phases.

Self-compassion

Eastern philosophy, particularly Buddhism, have vastly theorized about analyzing and understanding the essence of the self. Many of the concepts from Buddhism have been investigated among researchers interested in the self-processes (e.g., Gallagher & Shear. 1999; Rubin, 1996). One important construct in Buddhist philosophy relevant to the self-processes is self-compassion. Empirical psychological research in the West have produced extensive work on empathy and compassion for others; however, only recently have psychologist from the West begun to theorize and investigate self-compassion and its engendering of psychological wellbeing. In the existing literature, self-compassion has been defined as being compassionate and caring towards oneself in the face of suffering or perceived inadequacy (Bennett-Goleman, 2001; Brach, 2003; Neff, 2003a).

Neff (2003a) conceptualized self-compassion as comprised of three distinct, yet interrelated components that are practiced during the experiences of suffering and failure. Each component has two parts, the presence of one construct and the refutation of another. The three components of self-compassion include: (1) self-kindness versus self-judgment, (2) common humanity versus isolation, and (3) mindfulness versus overidentification. Self-kindness involves extending empathy, caring, and understanding towards all aspect of oneself. People who are self-kind would agree with the fact that they are imperfect without dejection; moreover, they are inclined to view their worth as unconditional. People that engage is self-kindness are not deprecative, demeaning, nor critical towards themselves. They do not relentlessly judge their negative feelings, thoughts, or behaviors. Common humanity details recognizing the connectedness and relatedness between humans. That sense of inadequacy, committing mistakes, and failing are shared human conditions. Personal weaknesses are viewed through a broad,

comprehensive perspective. Life's hardships are deemed to be universal constants in life. Through these views people feel connected rather than disconnected when going through a state of suffering. Exhibiting common humanity would negate any idea of isolation that emerges from believing that hardships or personal inadequacies are abnormal and should not happen. Lastly, Neff (2003a) characterized mindfulness as holding one's painful, present thoughts and feelings in attention and transparent awareness rather than overidentifying with them. Mindfulness involves recognizing the one is suffering to be able to employ compassion towards one's self. It is the ability to consider one's own experiences with greater objectivity and perspective. Mindfulness protects against overidentification. When people engage in overidentification, they are inclined to exaggerate and ruminate on their negative thoughts and emotions. Overidentification, thus, distorts the reality of their predicament.

Self-compassion has been proposed as an alternative concept of a healthy attitude towards the self, in contrast to self-esteem (Neff, 2003b). William James, a founding father of Western psychology, articulated that self-esteem is the state of perceived competence in areas deemed important (James, 1890). Cooley (1902) adds that our self-worth as well derives from perceptions of how we are perceived by others. Neff (2003b) suggests self-compassion may produce many of the psychological benefits that have been associated with high self-esteem, but with lesser adverse byproducts, including narcissism and lack of concern for others due to overemphasis on evaluating and liking one's self (Damon, 1995; Seligman, 1995), distortions in selfknowledge (Sedikkides, 1993), increased prejudice towards out-groups (Aberson et al, 2000), and violence and aggression towards people who are perceived to threaten the ego (Baumenister et al., 1996). Self-compassion permits the experience of positive emotions towards oneself without the need to defend or uphold one's self-concept, primarily because self-compassion is

not based on the performance evaluation of self and others (Neff, 2003b). Higher levels of selfcompassion have been associated with greater life satisfaction, emotional intelligence, social connectedness, and mastery goals (Neff, 2003b, Neff et al., 2005; Neff et al., 2007).

Empirical work has evinced that self-compassion also engenders mental health through the amelioration of depressive symptoms and reduction in alcohol use (Krieger et al, 2013; MacBeth & Gumley, 2012; Moeller & Crocker, 2009; Neff et al., 2007; Rendon, 2007) In a meta-analysis study, MacBeth and Gumley (2012) investigated the association between selfcompassion and symptoms of depression, and found a mean effect size of r = -.51 suggesting that self-compassion is inversely related to symptoms of depression. Krieger and colleagues (2013) provided evidence that in outpatients with depression, self-compassion was negatively related to the symptoms. In addition, patients with depression reported significantly lower levels of selfcompassion than individuals with no symptoms of depression. In a similar vein, an increase of self-compassion over a 1-month period was associated with a decrease in symptoms of depression (Neff et al., 2007). Furthermore, in a study investigating the association of self-image goals, and goals related to self-compassion with heavy episodic alcohol use and alcohol related problems among undergraduate college students, self-image goals were found to be associated to alcohol related problems but goals relating to high self-compassion were not (Moeller & Crocker, 2009). Relatively, Rendon (2007) found that in college students' self-compassion was negatively correlated with alcohol use.

Cognitive Reappraisal

Emotional theorist widely agree that individuals could exert considerable control over which emotions they have and when they have them through an array of emotion regulation strategies (Gross, 1998). Underlying the premise that emotion regulation strategies are

distinguish by their intervention at a particular time along the unfolding emotional response is the emotion-generative process model (Gross, 2001). The emotion-generative process model conceives that an emotion begins with an evaluation of emotion cues. When attended to and evaluated in certain ways, emotions trigger a coordinated set of response tendencies that involve experiential, behavioral, and physiological systems (Gross & John, 2003). Once these response tendencies arise, they may be modulated in various ways. An antecedent-focused emotion regulation strategy is a broad level form of modulating the response tendencies (Gross & John, 2003). A specific emotion regulation strategy categorized as antecedent-focused is cognitive reappraisal. Cognitive reappraisal is a form of cognitive alteration that involves construing a potentially emotion-eliciting situation in a way that changes its emotional impact (Lazarus & Alfert, 1964). Cognitive reappraisal intervenes before the emotion response tendencies arise, meaning it can alter the entire subsequent emotion trajectory.

Consider this as an example, a student fails a series of exams and thinks he is a failure, as a result he feels dejected. Recognizing his gross emotional state, he decides to reevaluate his perceptions about the significance of his failed exams. He conceives that rather than thinking he is a failure he will view it as a challenge to better himself, as a result, he feels calm and optimistic. In this example, the student is known to have exercised cognitive reappraisal to shift from a negative emotional response to a positive emotional response by altering his perception on the meaning of failing his exams. This emotion regulation strategy aims to reduce the experiential and behavioral outcomes of negative emotions when used to regulate a negative emotion. Gross and John (2003) demonstrated through discrete studies that cognitive reappraisal was predictive of greater positive emotion and lesser negative emotion; reappraisal is associated with better interpersonal functioning, and that wellbeing was positively related to reappraisal.

An area of interest has been the use of cognitive reappraisal as a protective factor for depression and alcohol abuse (D'Avanzato et al., 2013; Dryman & Heimberg, 2018; Rodriguez et al., 2019). A study on the cognitive reappraisal frequency differences among individuals with current versus remitted depression elucidates the potential protective influence of the emotion regulation strategy (D'Avanzato et al., 2013). The study's findings indicated that individuals with current major depressive disorder reported less frequent cognitive reappraisal than individuals with remitted depression. In a systematic review conducted by Dryman and Heimberg (2018) to understand the relations between depression and cognitive reappraisal, research largely indicated that depression was negatively associated to cognitive reappraisal. In addition, a short-term cognitive reappraisal intervention to reduce alcohol consumption and alcohol related problems in undergraduate students that were regular drinkers found that at follow-up participants that learned cognitive reappraisal techniques reduced their alcohol consumption and alcohol related problems compared to participants in the control group (Rodriguez et al., 2019).

The Present Study

The present study aimed to examine how cyber IPV types and their multi-victimization affect depression and alcohol use. And to investigate whether cognitive reappraisal, selfcompassion, and flourishing would act as protective factors in these associations among Hispanic emerging adults. This study is an extension of Cantu and Charak (2020). It examines the unique and additive associations of cyber IPV types with depression using a large sample size, and for the latter aim, an appropriate coding system for the cumulative cyber IPV multi-categorical variable. Additionally, the study expands on research by investigating cyber IPV's relation with alcohol use and assessing potential protective factors for these health concerns.

Aim 1

Literature has demonstrated associations between psychological, sexual, and stalking cyber IPV and depression (Cantu & Charak, 2020; Sargent et al., 2016) and alcohol use (Bennette et al., 2011; Trujillo et al., 2020). In addition, studies suggest that the protective factors being studied (i.e., cognitive reappraisal, self-compassion, flourishing) are negatively associated with depression (D'Avanzato et al., 2013; Low, 2011; MacBeth & Gumley, 2012) and alcohol use (McGaffin et al., 2015; Rendon, 2007; Rodriguez et al., 2019). With that being said, aim 1 is two-fold. The first part intends to investigate whether cyber IPV types are uniquely associated to depression and alcohol use. Contingent on the literature findings, it is hypothesized the psychological, sexual, and stalking would be uniquely associated with depression and alcohol use (H1a). The second part of aim one is to independently test each protective factor as a moderator for the unique association between a cyber IPV type and depression and alcohol use – it is hypothesized that protective factors would attenuate these mental health concerns in victims of cyber IPV (H1b).

Aim 2

Aim 2 would first assesses the additive effect of cyber IPV types on depression and alcohol use. Cantu and Charak (2020) and Trujillo and colleagues (2020) indicated that cyber IPV multi-victimization was associated with heightened risk of depression and alcohol use. Additionally, interpersonal violence studies have found that exposure to multiple types of victimization increases the risk of negative health outcomes (Sabina & Straus, 2008; Senn & Carey, 2010). It was hypothesized that cyber IPV types will have an accumulating effect on depression and alcohol use, in that, with every addition of a victimization type there will be a statistically significant increase in depression and alcohol use scores (H2a). Lastly, the study will

further assess the moderating effect of each protective factor on the association between cumulative exposure to cyber IPV and depression and alcohol use. It is hypothesized that protective factors will reduce these mental health concerns across exposure to a single form of cyber IPV and multiple types (H2b).

CHAPTER II

METHOD

Data

The data analyzed to conduct the study derives from a preexisting dataset pertaining to a larger research project titled: Stressful Life Events and Emotional Experiences (STEER; PI: R. Charak). The STEER research project examines different patterns of lifetime exposure to childhood adversities, and partner aggression and victimization in adulthood in face-to-face/in-person and online technology-based communications (e.g., phones, e-mails, or social medial) among college students. Additionally, it investigates the dynamic role of distinct potential risk and protective factors in the associations between lifetime exposure to maltreatment, partner violence, and psychological problems.

Participants

The initial sample consisted of 1,153 college-going Hispanic emerging adults enrolled in psychology courses at the University of Texas Rio Grande Valley. The inclusionary criteria for the present study were (i) self-identify as being of Hispanic heritage; (ii) an age within the range of 18-29 year; and (iii) in a current intimate partner relationship or have been in the past. One participant was deleted for not stating their age. An additional 23 participants were deleted for providing inconsistent responses and/or having missing data on variables of interest. The final effective sample consisted of 1,129 Hispanic emerging adults (72.5% female, n = 819) within an age range of 18-29 years (M = 20.53, SD = 2.44) who were at the time of the study in an intimate

partner relationship or have been in the past (63.1%, n = 712). Participants primarily identified as White (74%, n = 836), less than 1% identified as American Indian/Alaskan Native (n = 7), African American/Black (n = 4), Asian (n = 3), and Native Hawaiian/other Pacific Islander (n =1), for each race, and 24.6% (n = 278) selected "Other." Majority of participants classified themselves as undergraduate sophomores (30.5, n = 344), 27.2% (n = 307) indicated they were undergraduate juniors, 21.8% (n = 246) identified themselves as undergraduate freshman, 19.5% (n = 220) stated they were undergraduate seniors, and 1.1% (n = 12) self-classified themselves as graduate students. The household income of 30.5% (n = 344) of the participants was US\$19,999 and below, 16.3% (n = 184) had an income between US\$20,000 and US\$29,999, 11.7% (n =132) reported an income between US\$30,000 and US\$39,999, 10.5% (n = 119) reported and income in the range of US\$40,000 to US\$49,999, 9.1% (n = 103) indicated their household income was within US\$50,000 and US\$59,999, 5.3% (n = 60) had an income between US\$60,000 and US\$69,999, and 16.6% (n = 187) had an income of US\$70,000 or more.

Measures

Cyber Intimate Partner Victimization

The Cyber Aggression in Relationship Scale (CARS; Watkins et al., 2018) is a 34-item instrument used to assess victimization and perpetration of psychological, sexual, and stalking aggression among intimate partners transpiring in the past year or prior to the past year. In the present study, only the psychological, sexual, and stalking victimization subscales were used to assess lifetime forms of cyber IPV. Psychological cyber IPV was assessed through five items (e.g., *my partner sent threatening or harassing messages to me via text or social media*). Sexual cyber IPV was assessed via four items (e.g., *my partner pressured me to send sexual or naked photos of myself to him or her*). Stalking cyber IPV was assessed through eight items (e.g., *my*

partner checked my phone to see who I was talking to or texting without my permission).

Frequency of victimization was rated on 8-point Likert scale with responses ranging from 0 (*This has never happened*) to 6 (*More than 20 times*) referring to victimization that occurred in the past year, and response 7 (*Not in the past year, but did happen before*) referring to victimization that occurred prior to the past year. Confirmation of psychological, sexual, and stalking as factors of intimate partner cyber aggression using item factor analysis provides evidence for the construct validity of CARS (Watkins et al., 2018). Moreover, each subscale has adequate convergent and discriminant validity. The Cronbach's alpha for psychological, sexual, and stalking cyber IPV subscales in the present study were a = .66, .66, and .79, respectively.

A dichotomous variable was created for each form of cyber IPV denoting victimization within the lifetime. Participants that endorsed responses 1-7 were coded as 1 – indicating the presence of a specific type cyber IPV in their lifetime. Those that endorsed response 0 were coded as 0 – indicating the absence of a specific cyber IPV type. To realize the additive effect analysis of cyber IPV types, three pairwise variables comparing adjacent groups of cumulative cyber IPV membership were coded (sequential coding): no victimization (0) vs. one cyber IPV type (1); one type (0) vs. two cyber IPV types (1); and two types (0) vs. three cyber IPV types (1).

Flourishing

The Flourishing Scale (FS; Diener et al., 2010) is an eight-item measure used to assess subjective social and psychological well-being. Major aspects of social and psychological functioning (e.g., *My social relationships are supportive and rewarding* and *I lead a purposeful and meaningful life*) were measured on a 7-poin Likert scale (1 = Strongly disagree to 7 = *Strongly disagree*). Items responses were summed to provide a FS total score. Scores range from

8 to 56. A high score represents an individual with several psychological resources and strengths. The psychometrics of the FS are adequate (Diener et al., 2010). The scale was shown to have good internal consistency and moderately high temporal reliability. The FS has adequate construct validity (Diener et al., 2010). Established measures of well-being converged significantly the FS with strong correlation coefficients of .78 and .73. internal consistency of FS for the present study was a = .93.

Self-compassion

The Self-Compassion Short Form (SC-SF; Raes et al., 2011) is a 12-item assessment of an individual's ability to hold's one feelings of suffering with a sense of warmth, connection and concern. The SC-SF has six subscales, namely, self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identification. SC-SF items were rated on a 5-point Liker scale ranging between 1 (*Almost never*) to 5 (*Almost always*). The present study obtained the SC-SF total score to use as an overall sense of self-compassion. To compute the total score, selfjudgment, isolation, and over-identification items were reverse coded. Thereafter, responses were summed. SC-FC scores range from 5-60. Higher scores are associated with greater ability to exercise compassion towards self. Reliability analysis showed that the SC-SF had a near perfect correlation (r = .98) with the full Self-Compassion Scale (Raes et al., 2011). Confirmatory factor analysis established construct validity for the scale through identification of a general higherorder self-compassion factor and six second-order factors corresponding to the six facets of selfcompassion (Raes et al., 2011). In the present study, the internal consistency for the selfcompassion scale was a = .61.

Cognitive Reappraisal

The Emotion Regulation Questionnaire (ERQ; Goss & John, 2003) is a 10-item scale designed to measure respondents' tendency to regulate their emotions in two ways: (1) cognitive reappraisal and (2) expressive suppression. In the present study, only cognitive reappraisal was utilized. Respondents answered each item on a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Items that constructed cognitive reappraisal were summed to create that emotion regulation facet. Cognitive reappraisal scores range from 7 to 42. High scores on cognitive reappraisal suggest greater capacity to alter cognitions to regulate emotion. The ERQ has been shown to establish adequate construct validity for the cognitive reappraisal subscale (Gross & John 2003). Validity findings indicated that cognitive reappraisal converged with perceived regulation success, reinterpretation, repair, negative mood regulation, and rumination. In addition, it discriminated with Big Five's personality dimensions of neuroticism and extraversion, and converged with openness, agreeableness, and conscientiousness. Cognitive reappraisal Cronbach's alpha for the present study was a = .89.

Depression

The Patient Health Questionnaire (PHQ; Kroenke & Spitzer, 2002) is a nine-item instrument that screens for depression as characterize by the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM*-5; American Psychiatric Association, 2013) criteria. Frequency of depressive symptoms (e.g., *little interest or pleasure in doing things*) experienced in the past two weeks were rated on a 4-point Likert scale (0 = Not at all; 1 = Several days; 2 =*More than half the days*; and 3 = Nearly every day). Responses were summed to provide a PHQ-9 total score. Scores range from 0 to 27. Consistent with prior research, a cut-off score of 10 was used to indicate elevated depression (Kroenke et al., 2001). Increase in PHQ-9 depression severity is associate with deteriorating functionality in primary care patients; hence, demonstrating adequate construct validity. In the present study the Cronbach's alpha for depression was a = .89.

Alcohol Use

The Alcohol Use Disorder Identification Test (AUDIT; Babor et al., 2001) is a ten-item assessment used to screen hazardous and harmful alcohol use, and dependence symptoms. AUDIT items are rated on 5-point and 3-point Likert scales; however, values of the scales differ depending on what the items measure. Item 1 measures frequency of alcohol use on a 5-point Likert scale (0 = Never to 4 = 4 or more times a week). Item 2 measures alcohol consumption in a typical day of drinking on a 5-point Likert scale (0 = 1 or 2 to 4 = 10 or more). Items 3-8 were assessed on a 5-point Likert scale (0 = Never to 4 = Daily or almost daily). Item 3 measures frequency of heavy drinking, items 4-6 assess alcohol dependence symptoms in the past year, and item 7 and 8 measure harmful alcohol use in the past year. Item 9 and 10 assess harmful alcohol use on a 3-point Likert scale (0 = No, 2 = Yes, but not in the past year, 4 = Yes, during the past year). Responses were summed to provide an AUDIT total score. AUDIT scores range between 0 to 40. The AUDIT manual recommends a cut-off score of 8 to identify problematic alcohol use. Studies on the reliability of AUDIT have reported that it has high internal consistency (Fleming et al., 1991; Hays et al., 1995). Prior research has found AUDIT to be associated with drinking consequences, attitudes towards drinking, vulnerability to alcohol dependence, negative mood states, and reasons for drinking – establishing construct validity (Bohn et al., 1995). Moreover, AUDIT is a good measure to identify alcohol-related disorders as well as hazardous use (Piccinelli et al., 1997). AUDIT's Cronbach alpha for the present study was a = .84

Procedure

Participants were recruited through the SONA system, an automated participation pool management software that assists researchers with setting up studies, recruitment, and managing course credits or paid participation. On average it took students 45 minutes to complete the whole survey. Participants who completed the online survey were granted course credit if enrolled in the General Psychology course, and students enrolled in other Psychology courses were granted extra credit at the discretion of their instructors. Alternative research activities were available for students who did not want to take the survey to avoid coercion. Data collection for the present study was conducted between Spring 2016 and Fall 2019. The Institutional Review Board at the University of Texas Rio Grande Valley approved the research protocol.

Data Analyses

Analyses were conducted using SPSS version 25 (IBM Corp., 2017). First, descriptive statistics were the first analysis performed to observe the distributions of cyber IPV types, depression, alcohol use, cognitive reappraisal, self-compassion, flourishing, and demographic details. Second, bivariate correlations were conducted to examine the interrelations between cyber IPV types and multi-victimization, depression, alcohol use, protective factors, and binary gender. Lastly, four linear multiple regression analysis were conducted.

Multiple Regression Analyses

First, two regression models investigated the unique associations of the three cyber IPV types with depression and alcohol use. Cyber IPV types were entered as predictor variables in both models and each mental health concern was entered into a separate model as the dependent variable. Second, two regression models examined the additive effect of cyber IPV types on depression and alcohol use. The three pairwise groups of cumulative cyber IPV membership

(i.e., no victimization vs. one cyber IPV type, one type vs. two cyber IPV types, and two types vs. three cyber IPV types) were entered as predictor variables in both models and each mental health concern was entered into a separate model as the dependent variable. Binary gender was entered as a covariate for all four models.

Moderation Analyses

PROCESS macro for SPSS (Hayes, 2017) was used to run a series of linear regression moderation models. One set of independent moderation models examined the unique interaction effect between a cyber IPV type and a protective factor on a mental health concern, after accounting for the effects of the other two cyber IPV types and binary gender. In each model a cyber IPV type was entered as an independent variable, a protective factor was entered as a moderator, a mental health concern was entered as a dependent variable, and the alternative cyber IPV types and binary gender were entered as covariates – 18 unique interaction effect models were run in total. The remaining set of separate moderation/interaction models investigated the interaction effects between cyber IPV multi-victimization (i.e., two and three types of cyber IPV) and a protective factor on a mental health concern, after controlling for binary gender. To realize these moderation analyses, first, a composite variable (i.e., cumulative cyber IPV) was created by summing the three different types of cyber IPV experienced. Cumulative cyber IPV ranged from 0 (no cyber IPV) to 3 (three types of cyber IPV). The cyber IPV multi-categorical variable was thereafter entered as the predictor variable and coded using the indicator coding system. No victimization was the reference group for one to three types of cyber IPV. Next, a protective factor was entered as the moderator. After that, a mental health concern was entered as the dependent variable. Lastly, binary gender was added as a covariate -6 cumulative exposure to cyber IPV interaction effect models were run in total. Simple slopes

analysis and Johnson-Neyman technique (JN) were employed to examine significant interaction effects. In simple slope analysis 'low', 'moderate', and 'high' level of moderator variable are created using mean and ±1 SD from the mean. These variables are then included in separate models, along with an interaction term consisting of the revised moderator variable and the predictors. Although this method yields results which are easy to interpret, the points are arbitrary. The JN technique is a more complex approach that solves for the values of moderator for which the effect of predictor on dependent variable becomes significant (Carden et al., 2017). Unlike simple slopes analysis, JN technique provides information on all values of the moderator. Both analyses were conducted using PROCESS macro and graphs were created using SPSS software. Linear regression assumptions were verified and met before conducting regression analyses.

CHAPTER III

RESULTS

Descriptive Statistics of Cyber IPV, Mental Health Concerns, and Protective Factors

Descriptive statistics showed rates of cyber IPV types ranged between 23.8%-62.4%. Victimization of one to three forms of cyber intimate partner violence were between 17.3% to 32%. About 40% percent of the sample obtained an elevated depression score when using the PHQ-9 cut off score. About 16% of participants scored in the hazardous alcohol use range. Table 3 in Appendix A presents means scores for protective factors and further detailed statistics of study variables.

Cyber IPV, Mental Health Concerns, and Protective Factors Correlations

Bivariate correlations indicated the three forms of cyber IPV positively correlated with depression ($r_{range} = .13 - .17$, p < .001) and alcohol use ($r_{range} = .14 - .19$, p < .001). Binary gender was also correlated with depression (r = .12, p < .001) and alcohol use (r = -0.91, p < .01) – with female participants reporting greater depression scores, and males reporting greater alcohol use. Statistically significant correlations between protective factors, depression, and alcohol use varied. Cognitive reappraisal was negatively associated with depression (r = -.08, p < .05) but not with alcohol use. Similarly, self-compassion was negatively associated with depression (r = -.35, p < .001) and alcohol use (r = -.09, p < .01). Table 4 in Appendix A presents the correlation matrix.

Cyber IPV Types Unique Effect on Mental Health Concerns

Results of the multiple linear regression analysis demonstrated that the models testing for the unique effects of psychological, sexual, and stalking cyber IPV after accounting for binary gender and other types of cyber IPV were associated with depression and alcohol use. Psychological, sexual, and stalking cyber IPV were uniquely associated with depression. Psychological cyber IPV had the greatest variance in depression scores, followed by sexual cyber IPV then stalking cyber IPV. Additionally, only psychological and sexual cyber IPV were uniquely associated with alcohol use. Sexual cyber IPV had the greatest variance in alcohol use scores, thereafter, it was psychological cyber IPV. Refer to Table 1 for coefficients.

Table 1

| Variable | R^2 | F | df | В | SE | t | β |
|-------------------------|-------|----------|---------|------|-----|------|--------|
| Depression | | | | | | | |
| Total Model | .05 | 15.82*** | 4, 1124 | | | | |
| Psychological Cyber IPV | | | | 1.57 | .41 | 3.80 | .12*** |
| Sexual Cyber IPV | | | | 1.18 | .46 | 2.59 | .08** |
| Stalking Cyber IPV | | | | .83 | .42 | 1.96 | .06* |
| Alcohol Use | | | | | | | |
| Total Model | .07 | 19.98*** | 4, 1124 | | | | |
| Psychological Cyber IPV | | | | 1.16 | .30 | 3.90 | .13*** |
| Sexual Cyber IPV | | | | 1.54 | .33 | 4.67 | .14*** |
| Stalking Cyber IPV | | | | .52 | .31 | 1.70 | .06 |

Cyber IPV Types Unique Effect on Mental Health Concerns

Note. IPV = intimate partner victimization. Binary gender was held constant for both depression and alcohol use models. Binary gender was associated to depression (B = 1.56, SE = .41, p < .001) and alcohol use (B = -1.03, SE = .30, p < .010). *p < .05. ** p < .01. ***p < .001

Additive Effect of Cyber IPV Types on Mental Health Concerns

The multiple linear regression models examining the additive effects of cyber IPV types after holding binary gender constant were significantly associated with depression and alcohol

use. However, additive effects, that is incremental associations to depression and alcohol use with every additional exposure to a cyber IPV type, were not observed. The model with depression as the dependent variable, indicated that exposure to one type of cyber IPV was associated with depression against no cyber IPV; there was no evidence for an association between exposure to two types of cyber IPV with depression, against one cyber IPV type; and exposure to three types of cyber IPV was associated with depression when compared to two types. In the model with alcohol use as the dependent variable, only the association between exposure to three types of cyber IPV with alcohol use, against two types, was found. There was no evidence for an association between exposure to three types of cyber IPV with alcohol use, against two types, was found. There was no evidence for an association between alcohol use and exposure to one type of cyber IPV compared to no cyber IPV and two types compared to one type. Table 2 presents complete regression coefficients.

Table 2

| | | | | | ~~~ | | 0 |
|-----------------------|-------|----------|---------|------|-----|------|---------|
| Variable | R^2 | F | df | В | SE | t | β |
| Depression | | | | | | | |
| Total Model | .06 | 16.47*** | 4, 1124 | | | | |
| One Type Cyber IPV | | | | 1.99 | .52 | 3.84 | .14*** |
| Two Types Cyber IPV | | | | .34 | .50 | .69 | .03 |
| Three Types Cyber IPV | | | | 1.47 | .55 | 2.66 | .09** |
| Alcohol Use | | | | | | | |
| Total Model | .07 | 19.63*** | 4, 1124 | | | | |
| One Type Cyber IPV | | | | .55 | .38 | 1.47 | .053 |
| Two Types Cyber IPV | | | | .57 | .36 | 1.58 | .062 |
| Three Types Cyber IPV | | | | 2.14 | .40 | 5.40 | .176*** |

Additive Effect of Cyber IPV Types on Mental Health Concerns

Note. IPV = intimate partner victimization. Binary gender was held constant for both depression and alcohol use models. Binary gender was associated to depression (B = 1.55, SE = .41, p < .001) and alcohol use (B = -1.02, SE = .30, p < .010). *p < .05. ** p < .01. ***p < .001

Cyber IPV types by Protective Factor Interaction Effects on Mental Health Concerns Interaction Effect of Cyber IPV types and Cognitive Reappraisal on Depression

Independent unique effect models testing the interaction effect of a cyber IPV and cognitive reappraisal on depression, after controlling for other cyber IPV types and binary gender, were statistically significant. Interaction of psychological cyber IPV by cognitive reappraisal was negatively associated with depression (B = -.15, p < .01). The product of sexual cyber IPV and cognitive reappraisal had a negative effect on depression (B = -.13, p < .05). In addition, the interaction between stalking cyber IPV and cognitive reappraisal was negatively associated with depression (B = -.10, p < .05). Results of simple slope analyzes indicated that psychological cyber IPV was associated with depression at low (B = 2.79, p < .01) and moderate (B = 1.66, p < .01) levels of cognitive reappraisal, but not at high level of cognitive reappraisal (B = .52, p = .34). Sexual cyber IPV was associated with depression at low (B = 2.14, p < .01) and moderate (B = 1.12, p < .01) levels of cognitive reappraisal, but not at high level of cognitive reappraisal (B = .52, p = .34). Lastly, stalking cyber IPV was associated with depression at low (B = 2.14, p < .01) and moderate (B = 1.62, p < .01) and moderate (B = .86, p < .05) levels of cognitive reappraisal, but not at high level of cognitive reappraisal (B = .09, p = .89). Lastly, stalking cyber IPV was associated with depression at low (B = 1.62, p < .01) and moderate (B = .86, p < .05) levels of cognitive reappraisal, but not at high level of cognitive reappraisal (B = .09, p = .89). Lastly, stalking cyber IPV was associated with depression at low (B = 1.62, p < .01) and moderate (B = .86, p < .05) levels of cognitive reappraisal, but not at high level of cognitive reappraisal, but not at high level of cognitive reappraisal (B = .11, p = .84).

Using the JN technique, results of significant interaction models suggested that the association between psychological cyber IPV and depression was not statistically different from 0 at values of cognitive reappraisal greater than 34.94. The association between sexual cyber IPV and depression were not statistically different from 0 at values of cognitive reappraisal greater than 31.55. And the association between stalking cyber IPV and depression was not statistically different from 0 at values of cognitive reappraisal greater than 31.55. And the association between stalking cyber IPV and depression was not statistically different from 0 at values of cognitive reappraisal greater than 30.36. Refer to Appendix B for complete regression coefficients and visual graphs (interaction effects and JN). For

psychological cyber IPV model, conditional effects and visual graphs see Tables 5-6 and Figures 1-2. For sexual cyber IPV model, conditional effects and visual graphs see Tables 7-8 and Figures 3-4. Lastly, for stalking cyber IPV model, conditional effects and visual graphs see Tables 9-10 and Figures 5-6.

Interaction Effect of Cyber IPV Types and Cognitive Reappraisal on Alcohol Use

All unique effect models of the interaction of a cyber IPV by cognitive reappraisal had a statistically significant effect on alcohol use, after holding constant alternative cyber IPV types and binary gender. The interaction between psychological cyber IPV and cognitive reappraisal was negatively associated with alcohol use (B = -.10, p < .01). Sexual cyber IPV by cognitive reappraisal had a negative interaction effect on alcohol use (B = -.12, p < .01). The interaction effect of stalking cyber IPV and cognitive reappraisal on alcohol use was nonsignificant (B = -.02, p = .59). Results of simple slope analyzes indicated that psychological cyber IPV was associated with alcohol use (B = 1.99, p < .01) and moderate (B = 1.20, p < .01) levels of cognitive reappraisal, but not at high level of cognitive reappraisal (B = .42, p = .29). And sexual cyber IPV was associated with alcohol use at low (B = 2.45, p < .01) and moderate (B = 1.52, p < .01) levels of cognitive reappraisal, but not at high level of cognitive reappraisal (B = .42, p = .29). And sexual cyber IPV was associated with alcohol use at low (B = 2.45, p < .01) and moderate (B = 1.52, p < .01) levels of cognitive reappraisal, but not at high level of cognitive reappraisal (B = .59, p = .20).

Using the JN technique, results of significant interaction models indicated that the association of psychological cyber IPV with alcohol use was not significantly different than 0 at values of cognitive reappraisal greater than 35.13. Additionally, the association of sexual cyber IPV with alcohol use were not significantly different than 0 at values of cognitive reappraisal greater than 35.85. Complete regression coefficients and visual graphs can be found in Appendix B. For psychological cyber IPV model, conditional effects and visual graphs see Tables 11-12

and Figures 7-8. For sexual cyber IPV model, conditional effects and visual graphs see Tables 13-14 and Figures 9-10. And for stalking cyber IPV model and interaction effect visual graph see Table 15 and Figure 11.

Interaction Effect of Cyber IPV types and Self-compassion on Depression

Models investigating the unique interaction effect of a cyber IPV and self-compassion on depression were statistically significant, when holding alternative cyber IPV types and binary gender constant. However, there was no significant interaction effect of a cyber IPV and selfcompassion on depression. In all moderation/interaction models, self-compassion had a negative main effect on depression. See Appendix C for regression coefficients and interaction effect visual graphs. For psychological cyber IPV model and interaction effect visual graph see Table 16 and Figure 12. For sexual cyber IPV model and interaction visual graph see Table 17 and Figure 13. Lastly, for stalking cyber IPV model and interaction effect visual graph see Table 18 and Figure 14.

Interaction Effect of Cyber IPV Types and Self-compassion on Alcohol Use

Models examining the unique interaction effect of a cyber IPV and self-compassion on alcohol use were statistically significant, when holding alternative cyber IPV types and binary gender constant. Yet, no significant interaction effect of a cyber IPV and self-compassion was found on alcohol use. Additionally, self-compassion did not have a main effect on alcohol use in any of the models. For regression coefficients and interaction effect visual graphs see Appendix C. For psychological cyber IPV model and interaction effect visual graph see Table 19 and Figure 15. For sexual cyber IPV model and interaction visual graph see Table 20 and Figure 16. And for stalking cyber IPV model and interaction visual graph see Table 21 and Figure 17.

Interaction Effect of Cyber IPV Types and Flourishing on Depression

Unique effect models testing the interaction effect of a cyber IPV and flourishing on depression, after accounting for alternative cyber IPV types and binary gender, were statistically significant. The interaction between psychological cyber IPV and flourishing was negatively associated with depression (B = -.11, p < .01). Sexual cyber IPV by flourishing did not have an interaction effect on depression (B = -.03, p = .59). Lastly, the interaction between stalking cyber IPV and flourishing was negatively associated with depression (B = -.10, p < .01). Results of simple slope analyzes indicated that psychological cyber IPV was associated with depression at low (B = 2.46, p < .01) and moderate (B = 1.46, p < .01) levels of flourishing, but not at high level of flourishing (B = .46, p = .38). Moreover, stalking cyber IPV was associated with depression at low (B = 1.76, p < .01) and moderate (B = .86, p < .05) levels of flourishing, but not at high level of flourishing (B = .04, p = .94).

Using the JN technique, results of significant interactions indicated that the association between psychological cyber IPV and depression was not significantly different than 0 at values of flourishing greater than 50.76. The effect of stalking cyber IPV on depression was not significantly different than 0 at values of flourishing greater than 46.39. Complete regression coefficients and visual graphs can be found in Appendix D. For psychological cyber IPV model, conditional effects and visual graphs see Table 22-23 and Figure 18-19. For sexual cyber IPV model and interaction effect graph see Table 24 and Figure 20. For stalking cyber IPV model, conditional effects and visual graphs see Table 25-26 and Figure 21-22.

Interaction Effect of Cyber IPV Types and Flourishing on Alcohol Use

Overall, models of unique interaction effects of a cyber IPV and flourishing on alcohol use were statistically significant, when holding alternative cyber IPV types and binary gender constant. The product of psychological cyber IPV and flourishing had a negative interaction effect on alcohol use (B = -.10, p < .01). Sexual cyber IPV by flourishing interaction was negatively associated with alcohol use (B = -.20, p < .01). Additionally, the interaction of stalking cyber IPV and flourishing was negatively associated with alcohol use (B = -.11, p < .01). Results of simple slope analyzes indicated that psychological cyber IPV was associated with alcohol use at low (B = 2.01, p < .00) and moderate (B = 1.14, p < .01) levels of flourishing, but not at high level of flourishing (B = .28, p = .29). Sexual cyber IPV was associated with alcohol use at low (B = 2.96, p < .01) and moderate (B = 1.24, p < .01) levels of flourishing, but not at high level of flourishing (B = .48, p = .32). And stalking cyber IPV was associated with alcohol use at low level of flourishing (B = 1.51, p < .01), but not at moderate (B = .54, p = .08) and high (B = .43, p = .29) levels of flourishing.

JN technique results of significant interaction models suggested that the association between psychological cyber IPV and alcohol use was not statistically different than 0 at values of flourishing greater than 50.45. The association between sexual cyber IPV and alcohol use was not statistically different than 0 at values of flourishing greater than 48.35. And the association between stalking cyber IPV and alcohol use was not statistically different than 0 at values of flourishing greater than 45.07. Complete regression coefficients and visual graphs can be found in Appendix D. For psychological cyber IPV, conditional effects and visual graphs see Tables 27-28 and Figures 23-24. For sexual cyber IPV mode, conditional effects and visual graphs see Tables 29-30 and Figures 25-26. For stalking cyber IPV model, conditional effects and visual graphs see Tables 31-32 and Figures 27-28.

Cumulative Cyber IPV by Protective Factor Interaction Effect on Mental Health Concerns Interaction Effect of Cumulative Cyber IPV and Cognitive Reappraisal on Depression

The interaction effect model of cumulative cyber IPV types (vs. no victimization) and cognitive reappraisal on depression was statistically significant, after accounting for binary gender. The interaction of exposure to one type of cyber IPV by cognitive reappraisal was negatively associated with depression (B = -.17, p < .01). Exposure to two types of cyber IPV by cognitive reappraisal had a negative interaction effect on depression (B = -17, p < .01). Additionally, the interaction effect between exposure to three types of cyber IPV and cognitive reappraisal was negatively associated with depression (B = -.23 p < .01). Result of simple slope analysis suggested that one type of cyber IPV was associated with depression at low (B = 3.23, p < .01) and moderate (B = 1.97, p < .01) levels of cognitive reappraisal, but not at high level of cognitive reappraisal (B = .72, p = .33). Two types of cyber IPV was associated with depression at low (B = 3.72, p < .01) and moderate (B = 2.42, p < .01) levels of cognitive reappraisal, but not at high level of cognitive reappraisal (B = 1.11, p = .09). And three types of cyber IPV was associated with depression at low (B = 5.36, p < .01), moderate (B = 3.63, p < .01), and high (B= 1.90, p < .05) levels of cognitive reappraisal. Refer to Tables 33-34 for model and conditional effects complete coefficients and to Figure 28 for interaction effect visual graph in Appendix E.

Interaction Effect of Cumulative Cyber IPV and Cognitive Reappraisal on Alcohol Use

The interaction model investigating the effect of cumulative cyber IPV (vs. no victimization) by cognitive reappraisal on alcohol use was statistically significant, after controlling for binary gender. The interaction of exposure to one type of cyber IPV by cognitive reappraisal on alcohol use was nonsignificant (B = -.03, p = .57). Exposure to two types of cyber IPV by cognitive reappraisal did not have a statistically significant effect on alcohol use (B = -.03).

07, p = .11). The interaction effect between exposure to three types of cyber IPV and cognitive reappraisal was negatively associated with alcohol use (B = -.11 p < .01). Result of simple slope analysis indicated that three types of cyber IPV was associated with alcohol use at low (B = 4.04, p < .01), moderate (B = 3.18, p < .01), and high (B = 1.90, p < .05) levels of cognitive reappraisal. See Tables 35-36 for model and conditional effects complete coefficients and Figure 29 for interaction effect visual graph in Appendix E.

Interaction Effect of Cumulative Cyber IPV and Self-Compassion on Depression

Overall, the model testing the interaction effect between cumulative cyber IPV (vs. no victimization) and self-compassion on depression was statistically significant, when binary gender was held constant. The products between exposure to one type of cyber IPV or multiple types of cyber IPV and self-compassion did not have a statistically significant interaction effect on depression. Self-compassion had a negative main effect on depression (B = -.34, p = .01). Complete model coefficients and interaction visual graph are shown in Tables 37 and Figure 30 in Appendix D.

Interaction Effect of Cumulative Cyber IPV and Self-Compassion on Alcohol Use

The interaction effect model of cumulative cyber IPV (vs. no victimization) and selfcompassion on alcohol use was statistically significant, after holding binary gender constant. No interaction between exposure to one type of cyber IPV or multiple types of cyber IPV and selfcompassion had a statistically significant effect on alcohol use. Additionally, self-compassion did not have a main effect on alcohol use (B = -.01, p = .82). See Tables 38 for model coefficients and Figure 31 for interaction effect visual graph in Appendix E.

Interaction Effect of Cumulative Cyber IPV and Flourishing on Depression

The model testing the interaction effect of a cumulative cyber IPV (vs. no victimization) and flourishing on depression was statistically significant, after controlling for binary gender. The interaction between exposure to one type of cyber IPV and flourishing was negatively associated with depression (B = -.22, p < .01). Exposure to two types of cyber IPV by flourishing had a negative interaction effect on depression (B = -.18, p < .01). Lastly, the product of exposure to three types of cyber IPV by flourishing had a negative effect on depression (B = -.14, p < .01). Results of simple slope analyzes indicated that one type of cyber IPV was associated with depression at low (B = 3.96, p < .01) and moderate (B = 2.03, p < .01) levels of flourishing, but not at high level of flourishing (B = .10, p = .88). Two types of cyber IPV was associated with depression at low (B = 3.84, p < .01) and moderate (B = 2.24, p < .01) levels of flourishing, but not at high level of flourishing (B = .64, p = .30). Additionally, three types of cyber IPV was associated with depression at low (B = 4.37, p < .01), moderate (B = 2.24, p < .01), and high (B = 1.94, p < .01) levels of flourishing. Complete model and conditional effects coefficients and the interaction visual graph can be found in Tables 39-40 and Figure 33 in Appendix E.

Interaction Effect of Cumulative Cyber IPV and Flourishing on Alcohol use

The model investigating the interaction effect of a cumulative cyber IPV (vs. no victimization) and flourishing on alcohol use was statistically significant, after holding binary gender constant. The interaction of exposure to one type of cyber IPV by flourishing on alcohol use was nonsignificant (B = .03, p = .44). Exposure to two types of cyber IPV by flourishing also did not have a statistically significant effect on alcohol use (B = .07, p = .08). The interaction effect between exposure to three types of cyber IPV and flourishing was negatively associated with alcohol use (B = .20 p < .01). Result of simple slope analysis indicated that three types of

cyber IPV was associated to alcohol use at low (B = 4.71, p < .01), moderate (B = 2.94, p < .01), and high (B = 1.17, p < .05) levels of flourishing. Refer to Tables 41-42 for model and conditional effects complete coefficients and to Figure 33 for interaction effect visual graph in Appendix E.

CHAPTER IV

DISCUSSION

The present study examined the unique and additive effects of cyber IPV victimization types – psychological, sexual, and stalking – on depression and alcohol use and tested cognitive reappraisal, self-compassion, and flourishing as protective factors in the associations between cyber IPV types and depression and alcohol use in a large sample of Hispanic emerging adults. Findings indicated that psychological, sexual, and stalking cyber IPV were uniquely associated with depression, and psychological and sexual were associated with alcohol use –partially consistent with H1a, respectively. Cognitive reappraisal and flourishing reduced the negative effects of cyber IPV types on depression and alcohol– partially supporting H1b. Furthermore, exposure to three types of cyber IPV were associated with increase in depression and alcohol use – partially supporting H2a (additive effects). Here again, cognitive reappraisal and flourishing attenuated symptoms of depression and alcohol use associated with cumulative exposure to cyber IPV types – partially consistent with H2b.

Unique effects of cyber IPV types

Results indicate that Hispanic emerging adults that are victims of either psychological, sexual, or stalking cyber IPV are more likely to exhibit heightened depression, in contrast to nonvictims. Additionally, victims of psychological cyber intimate partner violence have the most acute depression in contrast to victims of sexual and stalking cyber intimate partner violence; thereafter, victims of sexual cyber intimate partner violence have greater depression than victims

of stalking cyber IPV. These associations are consistent with a growing body of research illustrating the relation between cyber IPV and depression (Cantu & Charak, 2020; Charak et al., 2019; Drouin et al., 2015; Lindsay et al., 2016; Sargent et al., 2016; Watkins et al., 2018).

Relative to the present study, Borrajo and Gámez-Guadix (2016) found unique effects of direct aggression and control on depression; however, the present study extends literature by assessing sexual cyber IPV's effect. Addressing the unique effect of this form of cyber IPV in relation to the other types, permits more precise effects of psychological and stalking cyber IPV on depression by accounting for the probable confounding effect of sexual cyber IPV. Findings support that these cyber forms of intimate partner victimization appear to affect depression among Hispanics independent of each other and gender; thus, it can be inferred, at the minimum, that Hispanic victims of cyber IPV types are affected by depression as are White non-Hispanic victims. Further, a dissimilarity to Cantu and Charak (2020) emerged; compared to the past study, a unique association between stalking cyber IPV and depression was observed among Hispanic emerging adults. It is likely that the larger sample size in the present study may have resulted in the unique effect of stalking cyber IPV on depression. Alternatively, it is probable that stalking cyber IPV does not account for depression in the presence of face-to-face IPV, unlike psychological and sexual cyber IPV, as it was shown in Cantu and Charak (2020). Replication studies should be conducted to strengthen the validity that cyber IPV types are uniquely associated with depression among Hispanics.

Concluding from the findings, it appears that Hispanic emerging adults that experience psychological or sexual cyber intimate partner violence have a greater likelihood of using alcohol than nonvictims. Furthermore, it appears Hispanic victims of sexual cyber intimate partner violence use more alcohol than Hispanic victims of psychological cyber intimate partner

violence. Past studies support the present associations between psychological cyber IPV, sexual cyber IPV, and alcohol use (Bennett et al., 2011; Charak et al., 2019; Melander & Hughes, 2018; Trujillo et al., 2020; Watkins et al., 2018). Notably, Trujillo et al. (2020) is the only other study that examines these unique associations. Evaluation of the present findings of unique associations against the findings by Trujillo et al. (2020) yielded mainly parallels. While psychological cyber IPV's unique association with alcohol used was inconsistent across our study and the study by Trujillo et al. (2020), the findings on the unique relations of alcohol use to sexual and stalking cyber IPV converged. Although study designs differed, in that Trujillo and colleagues (2020) sampled a different population (i.e., lesbian, gay, bisexual emerging adults) and held constant additional demographic variables such as binary gender, childhood maltreatment, and face-to-face IPV, it could be conjectured that Hispanic emerging adult victims of psychological cyber intimate partner violence have distinct psychological and sociodemographic dispositions that make them susceptible to alcohol use in contrast to LGB emerging adult victims; sexual cyber IPV causes great affliction that can lead to alcohol use; and the effect of stalking cyber IPV does not explain alcohol use in the presence of psychological and sexual cyber IPV. The nonsignificant unique association of stalking cyber IPV with alcohol use found in the present study should not undermine the effect this form of cyber intimate partner victimization may have on victims' alcohol use. Simple effects of stalking cyber IPV were identified and this is consistent with Watkins and colleagues (2018) and Trujillo and colleagues (2020). Ultimately, in Hispanic emerging adults, stalking cyber IPV in the absence of psychological and sexual cyber IPV could explain an aspect of their alcohol use. From the findings, the deduction can be made that Hispanics' alcohol use are affected in a relative manner as White non-Hispanics by cyber IPV types. Research should continue to examine the unique

effects of cyber IPV types to establish the differential influences these forms of violence may have on alcohol use in Hispanics.

Additive effect of cyber IPV types

Incremental severity of depression and alcohol use with each accumulating type of cyber IPV was not observed in Hispanic emerging adult victims. Rather, the increase in the severity of the mental health concern was contingent on exposure to the number of cyber IPV types. Findings indicate that victims of a single form of cyber IPV had significantly higher depression than nonvictims. Victims of the three types of cyber IPV had significantly greater depression than victims of two types. However, victims of two types of cyber IPV and victims of one type of cyber IPV did not have significantly different scores in depression. The risk of exacerbated depression after being multi-victimized by the three forms of cyber IPV is consistent with research of intimate partner violence (i.e., face-to-face IPV and cyber IPV) demonstrating the effects of multi-victimization on depression (Cantu & Charak, 2020; Charak et al., 2019; Sabina & Straus, 2008). Additionally, victims of all three cyber IPV had significantly higher alcohol use in comparison to victims of two types of cyber IPV. However, victims of a single cyber IPV did not significantly differ from nonvictims in alcohol use. And victims of two types of cyber IPV did not differ in alcohol use from victims of one type of cyber IPV. Findings are analogous to those found by Trujillo and colleagues (2020). Altogether, the present findings are partially consistent with the cumulative risk hypothesis (Rutter, 1979) – supporting that multivictimization (i.e., three types of cyber IPV) is associated with greater adverse effects on depression and alcohol use than no victimization and one type of cyber IPV. In addition, it seems Hispanics are vulnerable to the effects of multiple intimate partner victimization similar to White non-Hispanics (Sabina & Straus, 2008).

Role of protective factors

Furthermore, moderation analyses indicated that cognitive reappraisal attenuated the unique effects of psychological, sexual, and stalking cyber IPV on depression and those of psychological and sexual cyber IPV on alcohol use. And that flourishing attenuated the unique effects of psychological and stalking cyber IPV on depression and those of psychological, sexual, and stalking cyber IPV on alcohol use. Hispanic victims that had a low or moderate level of the protective factor had significantly higher depression and alcohol use when compared to nonvictims that had the same level. Victims and nonvictims with higher inclination to the protective factor had comparable depression and alcohol use. Findings suggest that cognitive reappraisal and flourishing were protective factors at high level to the extent they were able to significantly mitigate depression and alcohol use in Hispanic victims to comparable levels of Hispanic nonvictims with high level of the protective factor. An exception was observed in the effect of flourishing on the association of stalking cyber IPV with alcohol use. Victims of stalking cyber IPV with low flourishing had significantly higher alcohol use than nonvictims with low flourishing. Victims of stalking cyber intimate partner violence and nonvictims with moderate level of flourishing had comparable alcohol use. Similarly, victims of stalking cyber intimate partner violence and nonvictims with high level of flourishing had comparable alcohol use. These findings indicate that Hispanic victims of stalking cyber IPV would only need an average level of flourishing to significantly reduce its effect. Results attest to the protective effect of these constructs for Hispanic emerging adults higher on depression and alcohol use due to cyber intimate partner victimization. The protective effects of cognitive reappraisal and flourishing is consistent with research that has illustrated its efficacy in reducing depression and alcohol use (D'Avanzato et al., 2013; Low, 2011; McGaffin et al., 2015; Rodriguez et al., 2019).

Investigation of cumulative cyber IPV interactions indicated that the effects of one, two, and three types of cyber IPV (vs. no victimization) on depression and alcohol use were reduced by cognitive reappraisal and flourishing. Moderating effects were contingent on whether exposure was either to one, two, or three types of cyber IPV vis-a-vis the mental health concern. Hispanic victims of a single or two types of cyber IPV that had a low or moderate level of the protective factor had significantly higher depression in contrast to nonvictims with the same level of the protective factor. Victims and of a single cyber IPV, victims of two types of cyber IPV, and nonvictims with high level of the protective factor had comparable depression. In contrast to victims of a single cyber IPV or two types of cyber IPV, victims of the three cyber IPV types with either low, moderate, or high level of the protective factor had significantly higher depression compared to nonvictims with the same levels. Nevertheless, the difference in depression between victims (i.e., three cyber IPV types) with low cognitive reappraisal and victims with high cognitive reappraisal of 2.7 points in the PHQ-9 (i.e., 11.41 to 8.71) and the difference in depression between victims with low flourishing and victims with high flourishing of 4.87 points (i.e., 12.10 to 7.23) were significantly large and denoted a protective effect. In addition, high cognitive reappraisal and flourishing mitigated the effect of exposure to all three types of cyber IPV on alcohol use among Hispanic victims- similar to that observed in depression. The difference in alcohol use between victims with low cognitive reappraisal and victims with high cognitive reappraisal of 1.34 points in the AUDIT (i.e., from 6.28 to 4.94) and the difference in alcohol use between victims with low flourishing and victims with high flourishing of 3.21 (i.e., from 6.94 to 3.73) conveyed a protective effect. Caution is warranted when interpreting the protective effect of cognitive reappraisal and flourishing on exposure to two types of cyber IPV since the additive effect analysis indicate there is no significant

difference in depression between victims of one and two types of cyber IPV. The protective effects of cognitive reappraisal and flourishing are in line with previous studies (D'Avanzato et al., 2013; Low, 2011; McGaffin et al., 2015; Rodriguez et al., 2019). Results are also consistent with a study demonstrating the protective role of psychological and social factors in reducing negative health outcomes ensuing polyvictimization (Crush et al., 2018). Further, findings suggest that not only are cognitive reappraisal and flourishing constructs that could reduce depression and alcohol use in Hispanic victims of a distinct type of cyber IPV, they are as well effective in attenuating these mental health concerns in those who have been victims of psychological, sexual, and stalking cyber IPV concurrently.

Unlike cognitive reappraisal and flourishing having protective effects on certain effects of cyber IPV types and the effect of three types of cyber IPV on depression and alcohol use, selfcompassion did not have these effects. However, the reason for this varied. On the unique associations between psychological, sexual, and stalking cyber IPV and depression and the associations between single and multi-victimization and depression, self-compassion did not display a protective effect. Flourishing as well did not display a protective effect on the association of sexual cyber IPV and depression. Hispanic victims with low, moderate, or high level of the construct did not differ from nonvictims with the same levels in depression. Moreover, victims and nonvictims had a relative significant decrease in depression in respect to the levels of the construct. A probable explanation for these results is that among nonvictims there is one or many confounding variables that result in them having similar depression to victims at low, moderate, and high levels of factor. Replication studies should be conducted to retest the interaction effects of self-compassion and cyber IPV types and multi-victimization of cyber IPV types on depression and the interaction effects of flourishing and sexual cyber IPV types on depression. Studies should also investigate possible stressors associated to the variables in these moderation models that may be affecting Hispanic nonvictims' depression. On the other hand, self-compassion was not a protective factor for unique associations between psychological, sexual, and stalking cyber IPV and alcohol use and the associations between single and multi-victimization and alcohol use. Cognitive reappraisal also did not have a protective effect on the association between stalking cyber IPV and alcohol use. In these associations, Hispanic victims did not have significantly higher mental health concern than Hispanic nonvictims – and there was no significant decrease in mental health concerns from low to high levels of the construct among victims.

Present study's implications

Victimization of cyber IPV is pervasive and it appears to be more pervasive than face-toface IPV (Smith et al., 2017). The fact that ICTs use is widespread and that this form of communication is probably practiced more that in-person communication may elucidate the reason for its prevalence. Additionally, intimate partners being less inhibited to perpetrate violent behaviors because they don't see their victim directly, and the victims' ease of access to ICTs that permits undeterred exposure to violence towards them may explain the higher rates of cyber IPV than face-to-face cyber IPV. Cyber IPV's association with depression is in line with Beck's cognitive theory of depression. It is thought that cyber IPVs' repercussions are stressful life event that can lead a victim to develop a negative self-schema, and as a result, engage in negative information processing biases that can cause depression. The observation that cognitive reappraisal is a protective factor further supports that notion the negative self-schemas are associated to depression. Inaptitude of cognitive reappraisal can restrain the ability to reconstrue negative ruminations that may have developed from the effects of cyber IPV into perspectives

that are associated with positive emotions. Hence, the underlying mechanism of the protective effect of cognitive reappraisal may be that the emotion regulation strategy protects against the negative repercussion of cyber IPV on the self-schema and allows to reconstrue negative ruminations resulting from the experience of cyber IPV into thoughts that induce positive emotion. Alternatively, the protective effect of flourishing on depression can be elucidated by its foci on psychological and social constructs that are associated with well-being. For instance, it may be that having a purposeful and meaningful life, being engaged and interested in one's daily activities, actively contribute to the happiness and well-being of others, being optimistic about the future, among a few others, result in the development of personal philosophies, purposeful and positive behaviors, and stress coping strategies that deter depression associated with cyber IPV.

Furthermore, the association of cyber IPV with alcohol use is consistent with the selfmedication hypothesis – indicating this form of intimate partner victimization is a traumatic event that may lead victims to self-medicate by consuming alcohol to cope with the emotional distress (Khantzian, 1997). It is plausible that depression can present as the emotional distress resulting from victimization that induces alcohol use since the correlation analysis in the present study and research convey, they are comorbid mental health concerns. The protective effect of cognitive reappraisal on alcohol use may materialize from a victim's ability to reinterpret or restructure negative cognitions into perspectives associated with positive emotions – effectively deterring the inclination to self-medicate with alcohol use. Relative to depression, the protective effect of flourishing can be explicated by its foci on psychological and social constructs that are associated with well-being. Well-being, in turn, is an important construct that can reduce emotional distress that may induce increased alcohol use associated with cyber IPV. It is

important to acknowledge that mechanism underlying the protective effect of cognitive reappraisal and flourishing with cyber IPV cannot be clearly identified on the basis of self-report studies, these are solely inferences. Further research should be conducted to identify underlying mechanisms and to evaluate them as potential mechanisms of change for interventions aimed at treating depression and alcohol use associated to cyber IPV (Petrik & Cronin, 2014).

Limitations

The present study has a number of limitations that must be considered. First, assessment of cyber IPV is retrospective; thus, recall and response bias may exist considering the length of time that may have elapsed between participation in the study and cyber IPV experience. Second, the design of the study is cross-sectional and cannot establish causal effects of cyber IPV types and cumulative cyber IPV on depression and alcohol use. Any causal assumptions are based on prior literature (Cantu & Charak, 2020; Bennett et al., 2016; Trujillo et al., 2020; Wolford-Clevenger et al., 2016). Third, the unique effects of cyber IPV types are calculated based on the scenario that the three forms of victimization co-occur; hence, the effects of a cyber IPV type affecting a mental health concern may be an underestimation for victims of a single form of cyber IPV or a distinct combination of two cyber IPV types. Fourth, in the additive effect analysis, exposure to one type of cyber IPV and two types of cyber IPV are generated by weighing all cyber IPV equally – unique effect analysis evidence that cyber IPVs have differing degree of magnitude affecting mental health concerns. Hence, unfounded associations, such as the nonsignificant difference between the effects of exposure to one type of cyber IPV versus two types of cyber IPV affecting depression, may actually be significant if we consider a specific cyber IPV type versus a specific composite of two types of cyber IPV. This notion underlines that significance of assessing cyber IPV as delineated forms of intimate partner violence in future

research. Fifth, depression and alcohol use may be confounded by other forms of victimization, including peer victimization (Tennant, 2015), face-to-face IPV (Marganski & Melander, 2018), and child maltreatment (Ross et al., 2019). Sixth, some measures, such as the self-compassion scale had a slightly lower Cronbach's alpha in the present study. Seventh, this study focuses on Hispanic emerging adults enrolled at a university, and thus, the study findings may not be generalizable to other ethnic/racial groups of emerging adults. Lastly, the effect sizes for the unique effects and additive effects of cyber IPV types were small.

Implications for research and practice

The current findings have significant implications for future research endeavors in the field of cyber IPV, particularly in Hispanic emerging adults. The unique effect of psychological, sexual, and stalking cyber IPV and the additive effect of the three types of cyber IPV types on mental health concerns, shows the importance of examining cyber IPV as a multifaceted form of interpersonal violence among Hispanics. Future research should continue to assess cyber IPV as psychological, sexual, and stalking forms of intimate partner victimization and their tendency for multi-victimization. The present study, to the best of our knowledge, is the first to examine protective effects of cognitive reappraisal, flourishing, and self-compassion on the effects of cyber IPV on depression and alcohol use. Future studies should replicate these findings considering self-compassion did not emerge as a protective factor, and investigate risk (e.g., emotional dysregulation, repression) and additional protective (e.g., social support, resilience) factors. Additionally, factors associated with the Hispanic culture (e.g., machismo, marianismo) in the association between cyber IPV types and other forms of mental health problems among Hispanic individuals should be examined. Notably, cultural factors, such as machismo (i.e., male stereotype in Hispanic culture that encompasses bravado, decision-maker of the family),

marianismo (i.e., woman's role in Latin American culture in which there is an expectation of submissiveness, modesty, and responsibility for the caretaking of children), and level of acculturation have been found to act as risk and protective factors of face-to-face IPV among Hispanic individuals (Cummings et al., 2013). An understanding of these mechanisms would inform prevention and intervention strategies to combat cyber IPV and related consequences among Hispanic emerging adults. Future research should investigate the association of cyber IPV with other forms of mental heal concerns, including anxiety, posttraumatic stress symptoms, suicidal ideation, and substance use – since literature has denoted victimization is associated with these forms of mental health concerns (Borrajo & Gámez-Guadix, 2016; Herba et al., 2008; Ouystel, 2016; Sabinas and Straus, 2008; Sargent et al., 2015).

In practice, university institutions should be conscientious about the current pervasive transgressions of cyber IPV among emerging adults. Institutes of Higher education should utilize their resources to increase awareness on campus by having mandatory preventive strategies, such as education programs teaching online citizenship, and provide training to identify and report cyber IPV (White & Carmody, 2018). The Green Dot Bystander Intervention, an evidence-based violence intervention, may be adapted for ICTs and implemented at universities to address cyber IPV along with face-to-face IPV among young adults (Coker et al., 2015). In addition, clinicians who work with emerging adults who have been victims of intimate partner violence and/or are exhibiting depressive symptoms and heightened alcohol use should as well investigate the presence of cyber IPV types and exposure to multiple types of cyber IPV. Clinicians should be culturally sensitive and employ evidence-based therapies, such as cognitive-behavioral therapy, to help victim-survivors overcome negative cognitions (e.g., self-blame) that accompany victimization that may be maintained by cultural factors (e.g., marianismo; Cummings et al.,

2013) to help mitigate symptoms of depression and increased alcohol use in Hispanic individuals. Continual research is required to establish the mechanisms of change in cognitive reappraisal and flourishing, along with their efficacy as interventions techniques, to determine the suitability of their integration in formal psychotherapy. Moreover, additional research on cyber IPV is warranted to refine the etiology and effects on mental and behavioral health to develop specified forms of treatment and prevention programs to better aid victim-survivors.

Summary of major findings

Overall findings convey that psychological, stalking and sexual cyber IPV types are uniquely associated with increase in symptoms of depression and heightened alcohol use in Hispanic emerging adults. Exposure to three types of cyber IPV emerged as the only multivictimization presentation leading to an increase in depression and alcohol use. Furthermore, cognitive reappraisal and flourishing emerged are protective factors for the unique effects of certain cyber IPV types on depression and alcohol use, and the effect of exposure to the three types of cyber IPV on depression and alcohol use.

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APPENDIX A

APPENDIX A

Table 3

Descriptive Statistics of Cyber IPV, Mental Health Concerns, Protective Factors and Gender

| Variable | n | M(SD) | % |
|---|-----|--------------|------|
| Gender | | | |
| Female | 819 | | 72.5 |
| Male | 310 | | 27.5 |
| Cyber IPV | | | |
| Psychological Cyber IPV | 512 | | 45.3 |
| Sexual Cyber IPV | 269 | | 23.8 |
| Stalking Cyber IPV | 705 | | 62.4 |
| Cumulative Cyber IPV | | | |
| No Cyber IPV | 313 | | 27.7 |
| One Type of Cyber IPV | 260 | | 23.0 |
| Two Types of Cyber IPV | 361 | | 32.0 |
| Three Types of Cyber IPV | 195 | | 17.3 |
| Mental Health Concerns | | | |
| PHQ (Depression) | | 8.26 (6.35) | |
| Elevated Depression | 407 | | 36.0 |
| AUDIT (Alcohol Use) | | 3.46 (4.61) | |
| Hazardous Alcohol Use | 184 | | 16.3 |
| Legal drinking age group (LDAG) AUDIT | 432 | 4.75 (4.94) | |
| Hazardous Alcohol Use in LDAG | 106 | | 24.5 |
| Non legal drinking age group (NLDAG) AUDIT | 697 | 2.66 (4.21) | |
| Hazardous Alcohol Use in NLDAG | 78 | | 11.2 |
| Protective Factors | | | |
| Cognitive Reappraisal | | 30.01 (7.61) | |
| Self-Compassion | | 36.85 (7.94) | |
| Flourishing | | 45.58 (8.71) | |

Note: IPV = intimate partner victimization. Elevated depression was indicated by a Patient Health Questionnaire-9 score of > 9. Hazardous alcohol use was indicated by an Alcohol Use Disorder Identification Test score of > 7.

Table 4

Bivariate Correlations of Cyber IPV, Mental Health Concerns, Protective Factors and Gender

| Variable | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------------------------|--------|--------|--------|--------|--------|------|--------|--------|
| 1. Binary Gender | - | | | | | | | |
| 2. Psychological Cyber IPV | .01 | - | | | | | | |
| 3. Sexual Cyber IPV | .04 | .27*** | - | | | | | |
| 4. Stalking Cyber IPV | .02 | .42*** | .26*** | - | | | | |
| 5. Depression | .12*** | .17*** | .13*** | .14*** | - | | | |
| 6. Alcohol Use | 09** | .19*** | .19*** | .14*** | .18*** | - | | |
| 7. Cognitive Reappraisal | .02 | .03 | 03 | .03 | 08* | 02 | - | |
| 8. Self-Compassion | 12*** | 13*** | 12*** | 10** | 47*** | 06 | .34** | - |
| 9. Flourishing | .09** | 05 | 11*** | 03 | 35*** | 09** | .37*** | .44*** |

Note: IPV = intimate partner victimization. For binary gender, 0 = male and 1 = female. *p < .05. ** p < .01. ***p < APPENDIX B

APENDIX B

Table 5

Interaction Effect of Psychological Cyber IPV and Cognitive Reappraisal on Depression

| | В | SE | t | р | LLCI | ULCI |
|--|------|------|-------|-----|------|------|
| Constant | 4.42 | 1.17 | 3.77 | .00 | 2.12 | 6.72 |
| Psychological Cyber IPV | 6.12 | 1.56 | 3.92 | .00 | 3.06 | 9.19 |
| Cognitive Reappraisal | 01 | .03 | 29 | .77 | 07 | .05 |
| Psychological Cyber IPV x Cognitive Reappraisal | 15 | .05 | -3.00 | .00 | 25 | 05 |

Note: Model $R^2 = .07$, *F* (6,1122) = 13.49, *SE* = 37.77, *p* < .01. Binary gender, sexual cyber IPV, and stalking cyber IPV were controlled for. IPV = intimate partner victimization

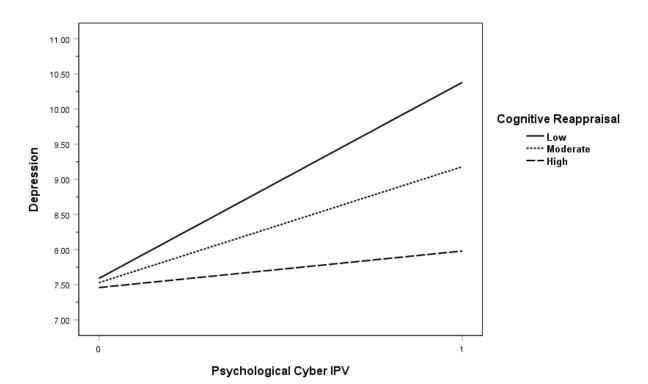
Table 6

Conditional Effects of Psychological Cyber IPV on Depression at Values of Cognitive Reappraisal

| | В | SE | t | р | LLCI | ULCI |
|--------------------------------|------|-----|------|-----|------|------|
| Low Cognitive Reappraisal | 2.79 | .57 | 4.89 | .00 | 1.67 | 3.91 |
| Moderate Cognitive Reappraisal | 1.66 | .41 | 4.03 | .00 | .85 | 2.46 |
| High Cognitive Reappraisal | .52 | .55 | .96 | .34 | 55 | 1.60 |

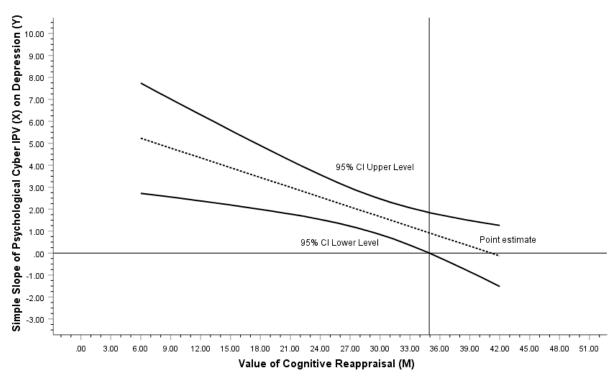
Note: Low cognitive reappraisal < mean -1 *SD*; moderate cognitive reappraisal = mean ± 1 *SD*; high cognitive reappraisal > mean +1 *SD*. Binary gender, sexual cyber IPV, and stalking cyber IPV were controlled for.

Association between psychological cyber IPV and depression at different levels of cognitive reappraisal



Note: Low cognitive reappraisal was fixed at 1 *SD* below the mean, moderate cognitive reappraisal at the mean, and high cognitive reappraisal at 1 *SD* above the mean. The relationship is statistically significant at low and moderate levels of cognitive reappraisal (p < .01). The slopes are nonsignificant at high level of cognitive reappraisal. The relationship indicates victims of psychological cyber IPV and non-victims are statistically different in depression at low and moderate levels of cognitive reappraisal.

The Johnson-Neyman graph for the model relating depression to psychological cyber IPV, cognitive reappraisal and their interaction



Note: The effect of psychological cyber IPV on depression is nonsignificant only for higher levels of cognitive reappraisal. Simple slope crosses over the significance barrier at cognitive reappraisal = 34.94.

Table 7

| | В | SE | t | р | LLCI | ULCI |
|---|------|------|-------|-----|------|------|
| Constant | 5.17 | 1.11 | 4.67 | .00 | 2.99 | 7.34 |
| Sexual Cyber IPV | 5.16 | 1.80 | 2.86 | .00 | 1.62 | 8.69 |
| Cognitive Reappraisal | 04 | .03 | -1.35 | .18 | 09 | .02 |
| Sexual Cyber IPV x Cognitive Reappraisal | 13 | .06 | -2.31 | .02 | 25 | 02 |

Interaction Effect of Sexual Cyber IPV and Cognitive Reappraisal on Depression

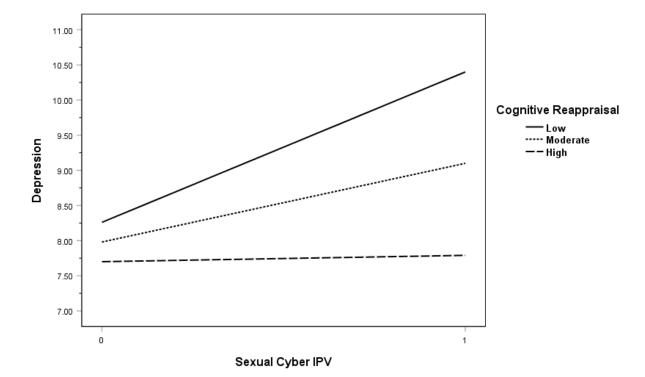
Note: Model $R^2 = .06$, *F* (6,1122) = 12.85, *SE* = 37.90, *p* < .01. Binary gender, psychological cyber IPV, and stalking cyber IPV were controlled for. IPV = intimate partner victimization

Table 8

Conditional Effects of Sexual Cyber IPV on Depression at Values of Cognitive Reappraisal

| | В | SE | t | р | LLCI | ULCI |
|--------------------------------|------|-----|------|-----|-------|------|
| Low Cognitive Reappraisal | 2.14 | .63 | 3.39 | .00 | .90 | 3.38 |
| Moderate Cognitive Reappraisal | 1.12 | .45 | 2.46 | .01 | .23 | 2.01 |
| High Cognitive Reappraisal | .09 | .64 | .14 | .89 | -1.16 | 1.34 |

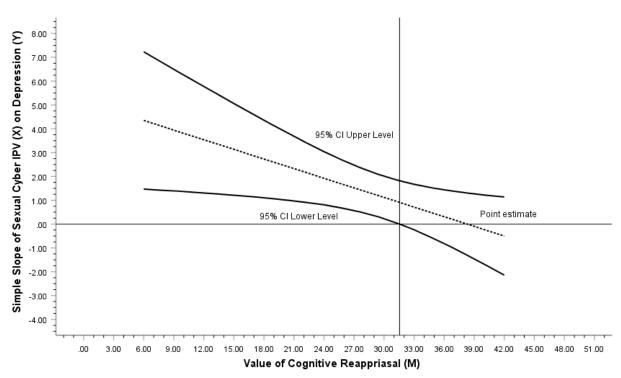
Note: Low cognitive reappraisal < mean -1 *SD*; moderate cognitive reappraisal = mean ± 1 *SD*; high cognitive reappraisal > mean +1 *SD*. Binary gender, psychological cyber IPV, and stalking cyber IPV were controlled for.



Association between sexual cyber IPV and depression at different levels of cognitive reappraisal

Note: Low cognitive reappraisal was fixed at 1 *SD* below the mean, moderate cognitive reappraisal at the mean, and high cognitive reappraisal at 1 *SD* above the mean. The relationship is statistically significant at low and moderate levels of cognitive reappraisal (p < .01). The slopes are nonsignificant at high level of cognitive reappraisal. The relationship indicates victims of sexual cyber IPV and non-victims are statistically different in depression at low and moderate levels of cognitive reappraisal.

The Johnson-Neyman graph for the model relating depression to sexual cyber IPV, cognitive reappraisal and their interaction



Note: The effect of sexual cyber IPV on depression is nonsignificant only for higher levels of cognitive reappraisal. Simple slope crosses over the significance barrier at cognitive reappraisal = 31.55.

Table 9

| | В | SE | t | р | LLCI | ULCI |
|---|------|------|-------|-----|------|------|
| Constant | 4.34 | 1.33 | 3.25 | .00 | 1.73 | 6.96 |
| Stalking Cyber IPV | 3.84 | 1.53 | 2.51 | .01 | .84 | 6.83 |
| Cognitive Reappraisal | 01 | .04 | 28 | .78 | 08 | .06 |
| Stalking Cyber IPV x Cognitive Reappraisal | 10 | .05 | -2.03 | .04 | 19 | .00 |

Interaction Effect of Stalking Cyber IPV and Cognitive Reappraisal on Depression

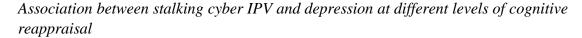
Note: Model $R^2 = .06$, F(6,1122) = 12.63, SE = 37.94, p < .01. Binary gender, psychological cyber IPV, and sexual cyber IPV were controlled for. IPV = intimate partner victimization

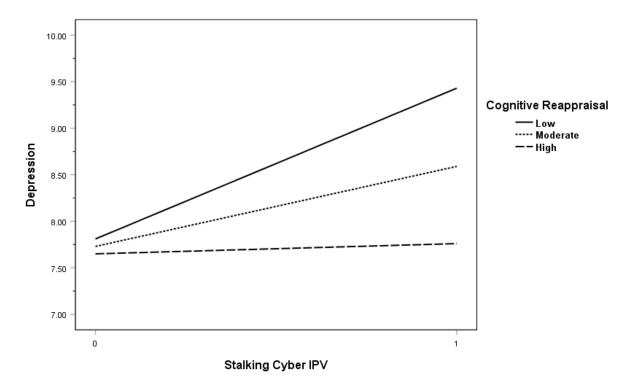
Table 10

Conditional Effects of Stalking Cyber IPV on Depression at Values of Cognitive Reappraisal

| | | * | | 0 0 | | * |
|--------------------------------|------|-----|------|-----|------|------|
| | В | SE | t | р | LLCI | ULCI |
| Low Cognitive Reappraisal | 1.62 | .56 | 2.87 | .00 | .51 | 2.72 |
| Moderate Cognitive Reappraisal | .86 | .42 | 2.05 | .04 | .04 | 1.69 |
| High Cognitive Reappraisal | .11 | .56 | .20 | .84 | 99 | 1.22 |

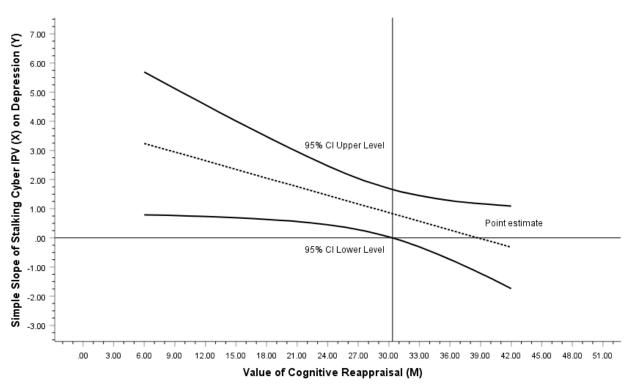
Note: Low cognitive reappraisal < mean -1 *SD*; moderate cognitive reappraisal = mean ± 1 *SD*; high cognitive reappraisal > mean +1 *SD*. Binary gender, psychological cyber IPV, and sexual cyber IPV were controlled for.





Note: Low cognitive reappraisal was fixed at 1 *SD* below the mean, moderate cognitive reappraisal at the mean, and high cognitive reappraisal at 1 *SD* above the mean. The relationship is statistically significant at low and moderate levels of cognitive reappraisal (p < 0.01). The slopes are nonsignificant at high level of cognitive reappraisal. The relationship indicates victims of stalking cyber IPV and non-victims are statistically different in depression at low and moderate levels of cognitive reappraisal.

The Johnson-Neyman graph for the model relating depression to stalking cyber IPV, cognitive reappraisal and their interaction



Note: The effect of stalking cyber IPV on depression is nonsignificant only for higher levels of cognitive reappraisal. Simple slope crosses over the significance barrier at cognitive reappraisal = 30.36.

Table 11

| | В | SE | t | р | LLCI | ULCI |
|--|------|------|-------|-----|------|------|
| Constant | 3.17 | .85 | 3.74 | .00 | 1.51 | 4.83 |
| Psychological Cyber IPV | 4.31 | 1.13 | 3.81 | .00 | 2.09 | 6.53 |
| Cognitive Reappraisal | .03 | .02 | 1.39 | .16 | 01 | .08 |
| Psychological Cyber IPV x Cognitive Reappraisal | 10 | .04 | -2.88 | .00 | 17 | 03 |

Interaction Effect of Psychological Cyber IPV and Cognitive Reappraisal on Alcohol Use

Note: Model $R^2 = .07$, F(6,1122) = 14.82, SE = 19.81, p < .01. Binary gender, sexual cyber IPV, and stalking cyber IPV were controlled for.

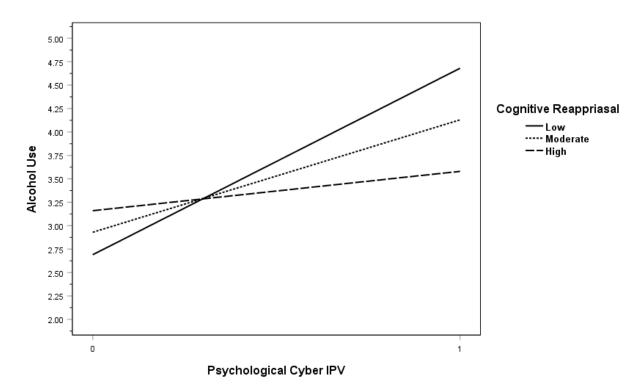
Table 12

Conditional Effects of Psychological Cyber IPV on Alcohol Use at values of Cognitive Reappraisal

| | В | SE | t | р | LLCI | ULCI |
|--------------------------------|------|-----|------|-----|------|------|
| Low Cognitive Reappraisal | 1.99 | .41 | 4.82 | .00 | 1.18 | 2.80 |
| Moderate Cognitive Reappraisal | 1.20 | .30 | 4.04 | .00 | .62 | 1.79 |
| High Cognitive Reappraisal | .42 | .40 | 1.05 | .29 | 36 | 1.19 |

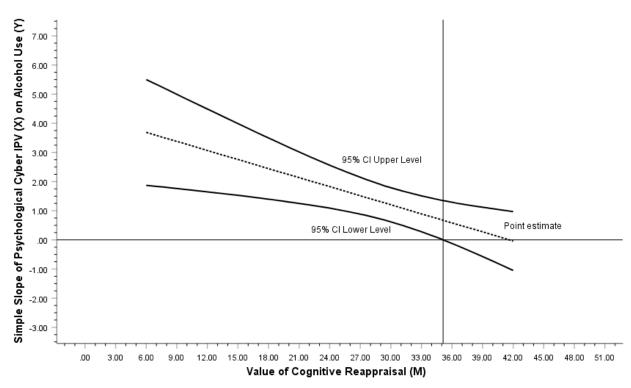
Note: Low cognitive reappraisal < mean -1 *SD*; moderate cognitive reappraisal = mean ± 1 *SD*; high cognitive reappraisal > mean +1 *SD*. Binary gender, sexual cyber IPV, and stalking cyber IPV were controlled for.

Association between psychological cyber IPV and alcohol use at different levels of cognitive reappraisal



Note: Low cognitive reappraisal was fixed at 1 *SD* below the mean, moderate cognitive reappraisal at the mean, and high cognitive reappraisal at 1 *SD* above the mean. The relationship is statistically significant at low and moderate levels of cognitive reappraisal (p < 0.01). The slopes are nonsignificant at high level of cognitive reappraisal. The relationship indicates victims of psychological cyber IPV and non-victims are statistically different in alcohol use at low and moderate levels of cognitive reappraisal.

The Johnson-Neyman graph for the model relating alcohol use to psychological cyber IPV, cognitive reappraisal and their interaction



Note: The effect of psychological cyber IPV on alcohol use is nonsignificant only for higher levels of cognitive reappraisal. Simple slope crosses over the significance barrier at cognitive reappraisal = 35.13.

Table 13

| | В | SE | t | р | LLCI | ULCI |
|---|------|------|-------|-----|------|------|
| Constant | 3.51 | .80 | 4.38 | .00 | 1.94 | 5.08 |
| Sexual Cyber IPV | 5.18 | 1.30 | 3.98 | .00 | 2.62 | 7.73 |
| Cognitive Reappraisal | .02 | .02 | .91 | .36 | 02 | .06 |
| Sexual Cyber IPV x Cognitive Reappraisal | 12 | .04 | -2.90 | .00 | 20 | 04 |

Interaction Effect of Sexual Cyber IPV and Cognitive Reappraisal on Alcohol Use

Note: Model $R^2 = .07$, F(6,1122) = 14.84, SE = 19.81, p < .01. Binary gender, psychological cyber IPV, and stalking cyber IPV were controlled for. IPV - intimate partner victimization

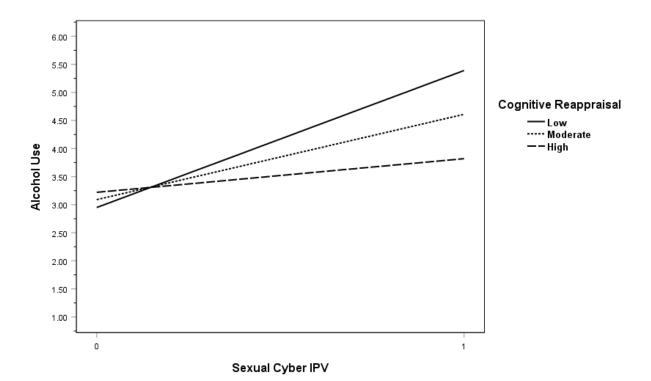
Table 14

Conditional Effects of Sexual Cyber IPV on Alcohol Use at values of Cognitive Reappraisal

| 55 5 5 | | | | 5 0 | 11 | |
|--------------------------------|------|-----|------|-----|------|------|
| | В | SE | t | р | LLCI | ULCI |
| Low Cognitive Reappraisal | 2.45 | .46 | 5.36 | .00 | 1.55 | 3.34 |
| Moderate Cognitive Reappraisal | 1.52 | .33 | 4.63 | .00 | .88 | 2.16 |
| High Cognitive Reappraisal | .59 | .46 | 1.29 | .20 | 31 | 1.50 |

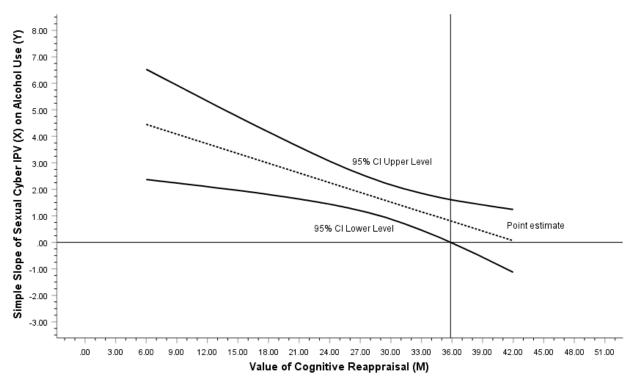
Note: Low cognitive reappraisal < mean -1 *SD*; moderate cognitive reappraisal = mean ± 1 *SD*; high cognitive reappraisal > mean + 1 *SD*. Binary gender, psychological cyber IPV, and stalking cyber IPV were controlled for.

Association between sexual cyber IPV and alcohol use at different levels of cognitive reappraisal



Note: Low cognitive reappraisal was fixed at 1 *SD* below the mean, moderate cognitive reappraisal at the mean, and high cognitive reappraisal at 1 *SD* above the mean. The relationship is statistically significant at low and moderate levels of cognitive reappraisal (p < 0.01). The slopes are nonsignificant at high level of cognitive reappraisal. The relationship indicates victims of sexual cyber IPV and non-victims are statistically different in alcohol use at low and moderate levels of cognitive reappraisal.

The Johnson-Neyman graph for the model relating alcohol use to sexual cyber IPV, cognitive reappraisal and their interaction



Note: The effect of sexual cyber IPV on depression is nonsignificant only for higher levels of cognitive reappraisal. Simple slope crosses over the significance barrier at cognitive reappraisal = 35.85.

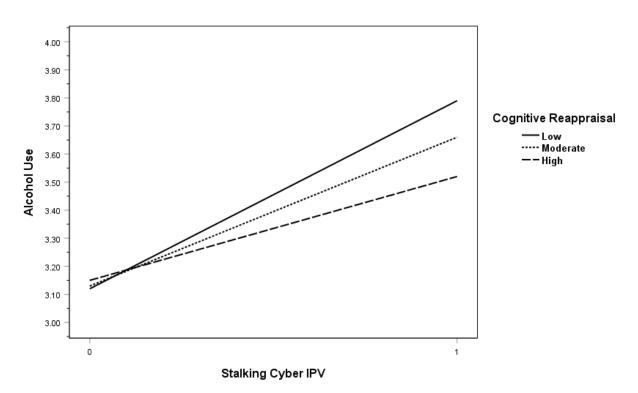
| | В | SE | t | р | LLCI | ULCI |
|---|------|------|------|-----|------|------|
| Constant | 3.96 | .97 | 4.09 | .00 | 2.06 | 5.86 |
| Stalking Cyber IPV | 1.10 | 1.11 | 1.00 | .32 | 1.07 | 3.28 |
| Cognitive Reappraisal | .00 | .03 | .07 | .95 | 05 | .05 |
| Stalking Cyber IPV x Cognitive Reappraisal | 02 | .04 | 55 | .59 | 09 | .05 |

Interaction Effect of Stalking Cyber IPV and Cognitive Reappraisal on Alcohol Use

Note: Model $R^2 = .07$, F(6,1122) = 13.40, SE = 19.25, p < .01. Binary gender, psychological cyber IPV, and sexual cyber IPV were controlled for. IPV - intimate partner victimization

Figure 11

Association between stalking cyber IPV and alcohol use at different levels of cognitive reappraisal



Note: Low cognitive reappraisal was fixed at 1 *SD* below the mean, moderate cognitive reappraisal at the mean, and high cognitive reappraisal at 1 *SD* above the mean. The relationship is not statistically significant (p = n.s.).

APPENDIX C

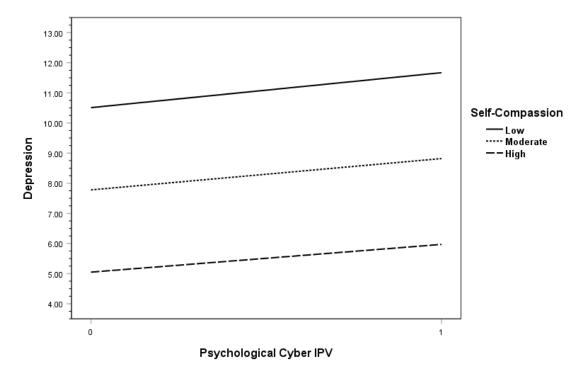
APPENDIX C

Table 16

| Interaction Effect of Psychological Cyber IPV and Self-Compassion on D | Depression |
|--|------------|
|--|------------|

| | В | SE | t | р | LLCI | ULCI |
|--|-------|------|--------|-----|-------|-------|
| Constant | 18.46 | 1.30 | 14.23 | .00 | 15.92 | 21.01 |
| Psychological Cyber IPV | 1.58 | 1.60 | .99 | .32 | -1.57 | 4.73 |
| Self-Compassion | 34 | .03 | -12.54 | .00 | 40 | 29 |
| Psychological Cyber IPV x Self-Compassion | 01 | .04 | 34 | .73 | 10 | .07 |

Self-Compassion Note: Model $R^2 = .24$, F(6,1122) = 58.39, SE = 30.86, p < .01. Binary gender, sexual cyber IPV, and stalking cyber IPV were controlled for. IPV - intimate partner victimization



Association between psychological cyber IPV and depression at different levels of selfcompassion

Note: Low self-compassion was fixed at 1 *SD* below the mean, moderate self-compassion at the mean, and high self-compassion at 1 *SD* above the mean. The relationship is not statistically significant (p = n.s.).

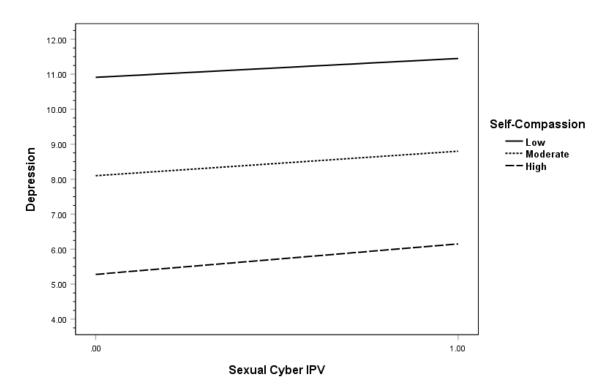
| | В | SE | t | р | LLCI | ULCI |
|--|-------|------|--------|-----|-------|-------|
| Constant | 18.85 | 1.20 | 15.75 | .00 | 16.50 | 21.20 |
| Sexual Cyber IPV | 06 | 1.87 | 03 | .98 | -3.72 | 3.61 |
| Self-Compassion | 35 | .02 | -14.81 | .00 | 40 | 31 |
| Sexual Cyber IPV x Self- Compassion | .02 | .05 | .40 | .69 | 08 | .12 |

Interaction Effect of Sexual Cyber IPV and Self-Compassion on Depression

Note: Model $R^2 = .24$, F(6,1122) = 58.40, SE = 30.86, p < .01. Binary gender, psychological cyber IPV, and stalking cyber IPV were controlled for. IPV = intimate partner victimization

Figure 13

Association between sexual cyber IPV and depression at different levels of self-compassion



Note: Low self-compassion was fixed at 1 *SD* below the mean, moderate self-compassion at the mean, and high self-compassion at 1 *SD* above the mean. The relationship is not statistically significant (p = n.s.).

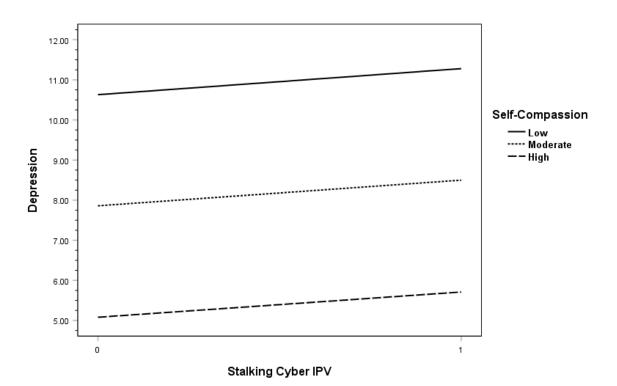
| | В | SE | t | р | LLCI | ULCI |
|--|-------|------|--------|-----|-------|-------|
| Constant | 18.66 | 1.47 | 12.67 | .00 | 15.77 | 21.55 |
| Stalking Cyber IPV | .68 | 1.63 | .42 | .68 | -2.52 | 3.88 |
| Self-Compassion | 35 | .03 | -10.55 | .00 | 41 | 28 |
| Stalking Cyber IPV x Self- Compassion | .00 | .04 | 02 | .98 | 08 | .08 |

Interaction Effect of Stalking Cyber IPV and Self-Compassion on Depression

Note: Model $R^2 = .24$, F(6,1122) = 58.37, SE = 30.87, p < .01. Binary gender, psychological cyber IPV, and sexual cyber IPV were controlled for. IPV = intimate partner victimization

Figure 14

Association between stalking cyber IPV and depression at different levels of self-compassion



Note: Low self-compassion was fixed at 1 *SD* below the mean, moderate self-compassion at the mean, and high self-compassion at 1 *SD* above the mean. The relationship is not statistically significant (p = n.s.).

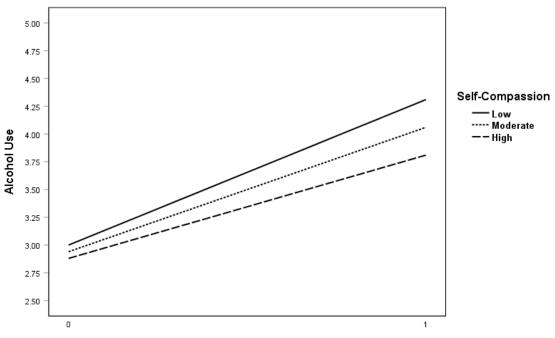
| | В | SE | t | р | LLCI | ULCI |
|--|------|------|------|-----|------|------|
| Constant | 4.37 | 1.04 | 4.19 | .00 | 2.33 | 6.42 |
| Psychological Cyber IPV | 2.01 | 1.29 | 1.56 | .12 | 52 | 4.54 |
| Self-Compassion | 01 | .02 | 34 | .74 | 05 | .04 |
| Psychological Cyber IPV x Self-Compassion | 02 | .03 | 70 | .49 | 09 | .04 |

Interaction Effect of Psychological Cyber IPV and Self-Compassion on Alcohol Use

Note: Model $R^2 = .07$, *F* (6,1122) = 13.56, *SE* = 19.93, *p* < .01. Binary gender, sexual cyber IPV, and stalking cyber IPV were controlled for. IPV = intimate partner victimization

Figure 15

Association between psychological cyber IPV and alcohol use at different levels of selfcompassion



Psychological Cyber IPV

Note: Low self-compassion was fixed at 1 *SD* below the mean, moderate self-compassion at the mean, and high self-compassion at 1 *SD* above the mean. The relationship is not statistically significant (p = n.s.).

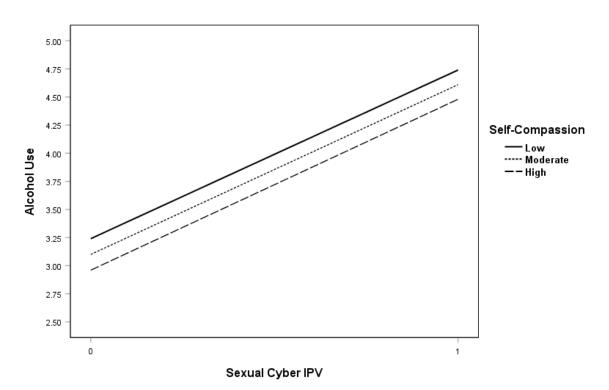
| | В | SE | t | р | LLCI | ULCI |
|--|------|------|------|-----|-------|------|
| Constant | 4.75 | .96 | 4.93 | .00 | 2.86 | 6.63 |
| Sexual Cyber IPV | 1.45 | 1.50 | .97 | .33 | -1.50 | 4.40 |
| Self-Compassion | 02 | .02 | 91 | .36 | 06 | .02 |
| Sexual Cyber IPV x Self- Compassion | .00 | .04 | .04 | .97 | 08 | .08 |

Interaction Effect of Sexual Cyber IPV and Self-Compassion on Alcohol Use

Note: Model $R^2 = .07$, F(6,1122) = 13.48, SE = 19.94, p < .01. Binary gender, psychological cyber IPV, and stalking cyber IPV were controlled for. IPV = intimate partner victimization

Figure 16

Association between sexual cyber IPV and alcohol use at different levels of self-compassion



Note: Low self-compassion was fixed at 1 *SD* below the mean, moderate self-compassion at the mean, and high self-compassion at 1 *SD* above the mean. The relationship is not statistically significant (p = n.s.).

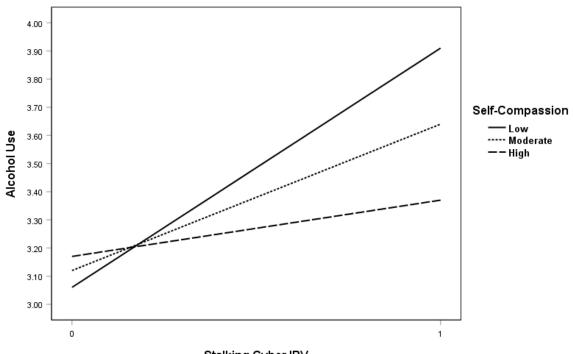
| | В | SE | t | р | LLCI | ULCI |
|--|------|------|-------|-----|------|------|
| Constant | 3.84 | 1.18 | 3.24 | .00 | 1.51 | 6.16 |
| Stalking Cyber IPV | 2.01 | 1.31 | 1.53 | .13 | 56 | 4.58 |
| Self-Compassion | .01 | .03 | .26 | .80 | 05 | .06 |
| Stalking Cyber IPV x Self- Compassion | 04 | .03 | -1.17 | .24 | 11 | .03 |

Interaction Effect of Stalking Cyber IPV and Self-Compassion on Alcohol Use

Note: Model $R^2 = .07$, F(6,1122) = 13.72, SE = 19.92, p < .01. Binary gender, psychological cyber IPV, and sexual cyber IPV were controlled for. IPV = intimate partner victimization

Figure 17

Association between stalking cyber IPV and alcohol use at different levels of self-compassion



Stalking Cyber IPV

Note: Low self-compassion was fixed at 1 *SD* below the mean, moderate self-compassion at the mean, and high self-compassion at 1 *SD* above the mean. The relationship is not statistically significant (p = n.s.).

APPENDIX D

APPENDIX D

Table 22

| | • | | 0 | - | | |
|--|-------|------|-------|-----|-------|-------|
| | В | SE | t | р | LLCI | ULCI |
| Constant | 13.00 | 1.33 | 9.79 | .00 | 10.40 | 15.60 |
| Psychological Cyber IPV | 6.69 | 1.88 | 3.56 | .00 | 3.00 | 10.38 |
| Flourishing | 21 | .03 | -8.14 | .00 | 26 | 16 |
| Psychological Cyber IPV x Flourishing | 11 | .04 | -2.83 | .00 | 19 | 04 |

Interaction Effect of Psychological Cyber IPV and Flourishing on Depression

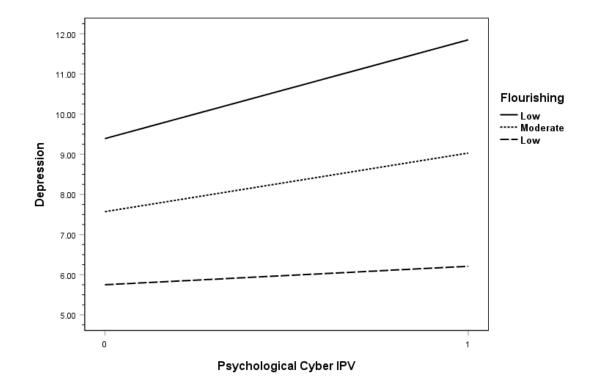
Note: Model $R^2 = .18$, F(6,1122) = 40.58, SE = 33.28, p < .01. Binary gender, sexual cyber IPV, and stalking cyber IPV were controlled for. IPV - intimate partner victimization

Table 23

Conditional Effects of Psychological Cyber IPV on Depression at Values of Flourishing

| $J_J = J_J$ | 0 | · · · · · · · · · · · · · · · · · · · | | J | | 0 |
|----------------------|------|---------------------------------------|------|-----|------|------|
| | В | SE | t | р | LLCI | ULCI |
| Low Flourishing | 2.46 | .52 | 4.73 | .00 | 1.44 | 3.48 |
| Moderate Flourishing | 1.46 | .29 | 3.78 | .00 | .70 | 2.22 |
| High Flourishing | .46 | .53 | .87 | .38 | 57 | 1.49 |

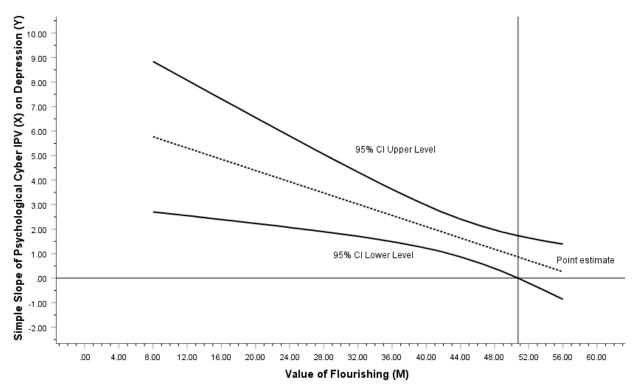
Note: Low flourishing < mean -1 *SD*; moderate flourishing = mean ± 1 *SD*; high flourishing > mean +1 *SD*. Binary gender, sexual cyber IPV, and stalking cyber IPV were controlled for.



Association between psychological cyber IPV and depression at different levels of flourishing

Note: Low flourishing was fixed at 1 *SD* below the mean, moderate flourishing at the mean, and high flourishing at 1 *SD* above the mean. The relationship is statistically significant at low and moderate levels of flourishing (p < 0.01). The slopes are nonsignificant at high level of flourishing. The relationship indicates victims of psychological cyber IPV and non-victims are statistically different in depression at low and moderate levels of flourishing.

The Johnson-Neyman graph for the model relating depression to psychological cyber IPV, flourishing and their interaction



Note: The effect of psychological cyber IPV on depression is nonsignificant only for higher levels of flourishing. Simple slope crosses over the significance barrier at flourishing = 50.76.

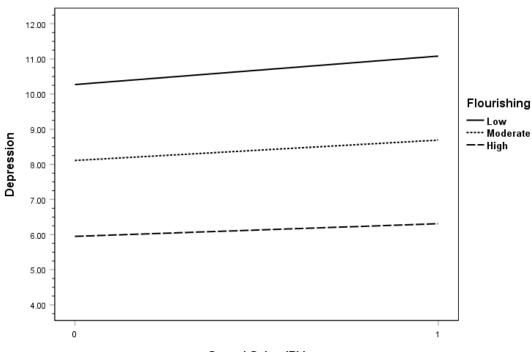
| | В | SE | t | р | LLCI | ULCI |
|--------------------------------|-------|------|--------|-----|-------|-------|
| Constant | 14.76 | 1.22 | 12.11 | .00 | 12.37 | 17.15 |
| Sexual Cyber IPV | 1.76 | 2.15 | .82 | .41 | -2.46 | 5.97 |
| Flourishing | 25 | .02 | -10.87 | .00 | 29 | 20 |
| Sexual Cyber IPV x Flourishing | 03 | .05 | 54 | .59 | 12 | .07 |

Interaction Effect of Sexual Cyber IPV and Flourishing on Depression

Note: Model $R^2 = .17$, F(6,1122) = 39.02, SE = 33.51, p < .01. Binary gender, psychological cyber IPV, and stalking cyber IPV were controlled for. IPV - intimate partner victimization

Figure 20

Association between sexual cyber IPV and depression at different levels of flourishing



Sexual Cyber IPV

Note: Low flourishing was fixed at 1 *SD* below the mean, moderate flourishing at the mean, and high flourishing at 1 *SD* above the mean. The relationship is not statistically significant (p = n.s.).

| | В | SE | t | р | LLCI | ULCI |
|-------------------------------------|-------|------|-------|-----|------|-------|
| Constant | 12.48 | 1.49 | 8.40 | .00 | 9.57 | 15.39 |
| Stalking Cyber IPV | 5.58 | 1.86 | 3.00 | .00 | 1.93 | 9.23 |
| Flourishing | 20 | .03 | -6.74 | .00 | 26 | 14 |
| Stalking Cyber IPV x Flourishing | 10 | .04 | -2.60 | .01 | 18 | 03 |

Interaction Effect of Stalking Cyber IPV and Flourishing on Depression

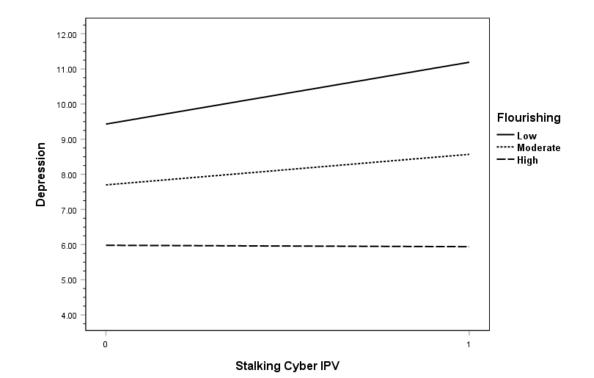
Note: Model $R^2 = .18$, F(6,1122) = 40.33, SE = 33.31, p < .001. Binary gender, psychological cyber IPV, and sexual cyber IPV were controlled for. IPV = intimate partner victimization

Table 26

Conditional Effects of Stalking Cyber IPV on Depression at Values of Flourishing

| | | | | 0 | 0 | | |
|----------------------|------|-----|------|-----|-------|------|---|
| | В | SE | t | р | LLCI | ULCI | • |
| Low Flourishing | 1.76 | .53 | 3.32 | .00 | .72 | 2.80 | • |
| Moderate Flourishing | .86 | .40 | 2.18 | .03 | .08 | 1.64 | |
| High Flourishing | 04 | .52 | 08 | .94 | -1.06 | .98 | |

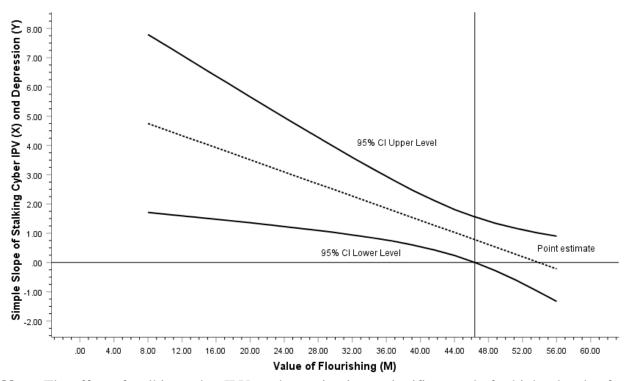
Note: Low flourishing < mean -1 *SD*; moderate flourishing $= \pm 1$ *SD*; high flourishing > mean +1 *SD*. Binary gender, psychological cyber IPV, and sexual cyber IPV were controlled for.



Association between stalking cyber IPV and depression at different levels of flourishing

Note: Low flourishing was fixed at 1 *SD* below the mean, moderate flourishing at the mean, and high flourishing at 1 *SD* above the mean. The relationship is statistically significant at low and moderate levels of flourishing ($p \le 0.01$). The slopes are nonsignificant at high level of flourishing. The relationship indicates victims of stalking cyber IPV and non-victims are statistically different in depression at low and moderate levels of flourishing.

The Johnson-Neyman graph for the model relating depression to stalking cyber IPV, flourishing and their interaction



Note: The effect of stalking cyber IPV on depression is nonsignificant only for higher levels of flourishing. Simple slope crosses over the significance barrier at flourishing = 46.39.

| | В | SE | t | р | LLCI | ULCI |
|--|------|------|-------|-----|------|------|
| Constant | 3.56 | 1.02 | 3.48 | .00 | 1.55 | 5.56 |
| Psychological Cyber IPV | 5.67 | 1.45 | 3.92 | .00 | 2.83 | 8.51 |
| Flourishing | .01 | .02 | .49 | .62 | 03 | .05 |
| Psychological Cyber IPV x Flourishing | 10 | .03 | -3.19 | .00 | 16 | 04 |

Interaction Effect of Psychological Cyber IPV and Flourishing on Alcohol Use

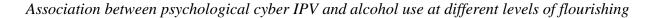
Note: Model $R^2 = .08$, F(6,1122) = 15.79, SE = 19.71, p < .01. Binary gender, sexual cyber IPV, and stalking cyber IPV were controlled for. IPV = intimate partner victimization

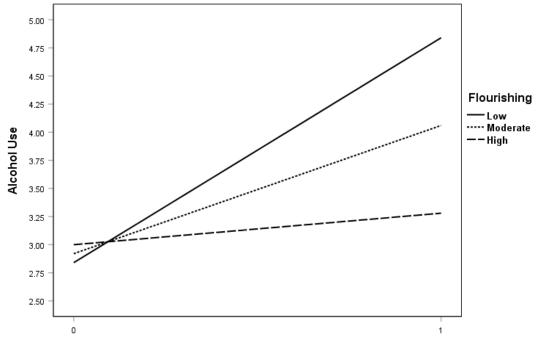
Table 28

Conditional Effects of Psychological Cyber IPV on Alcohol Use at Values of Flourishing

| | - | | | | 0 | 0 | |
|----------------------|------|-----|------|-----|------|------|---|
| | В | SE | t | р | LLCI | ULCI | - |
| Low Flourishing | 2.01 | .40 | 5.02 | .00 | 1.22 | 2.79 | - |
| Moderate Flourishing | 1.14 | .30 | 3.84 | .00 | .56 | 1.72 | |
| High Flourishing | .28 | .40 | .68 | .50 | 52 | 1.07 | |

Note: Low flourishing < mean -1 *SD*; moderate flourishing = mean ± 1 *SD*; high flourishing > mean +1 *SD*. Binary gender, sexual cyber IPV, and stalking cyber IPV were controlled for.

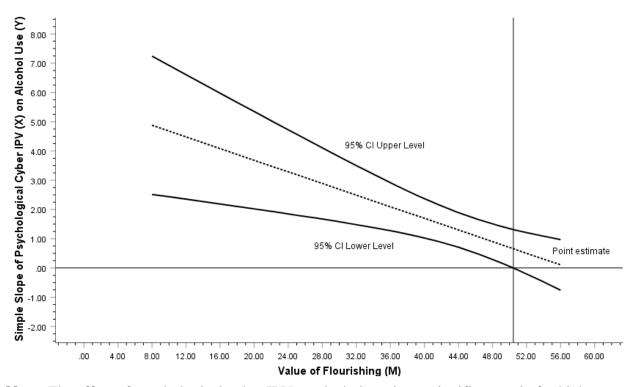




Psycholoical Cyber IPV

Note: Low flourishing was fixed at 1 *SD* below the mean, moderate flourishing at the mean, and high flourishing at 1 *SD* above the mean. The relationship is statistically significant at low and moderate levels of flourishing (p < 0.01). The slopes are nonsignificant at high level of flourishing. The relationship indicates victims of psychological cyber IPV and non-victims are statistically different in alcohol use at low and moderate levels of flourishing.

The Johnson-Neyman graph for the model relating alcohol use to psychological cyber IPV, flourishing and their interaction



Note: The effect of psychological cyber IPV on alcohol use is nonsignificant only for higher levels of flourishing. Simple slope crosses over the significance barrier at flourishing = 50.45.

| | В | SE | t | р | LLCI | ULCI |
|--------------------------------|-------|------|-------|-----|------|-------|
| Constant | 3.35 | .93 | 3.61 | .00 | 1.53 | 5.16 |
| Sexual Cyber IPV | 10.23 | 1.63 | 6.27 | .00 | 7.03 | 13.44 |
| Flourishing | .02 | .02 | .92 | .36 | 02 | .05 |
| Sexual Cyber IPV x Flourishing | 20 | .04 | -5.48 | .00 | 27 | 13 |

Interaction Effect of Sexual Cyber IPV and Flourishing on Alcohol Use

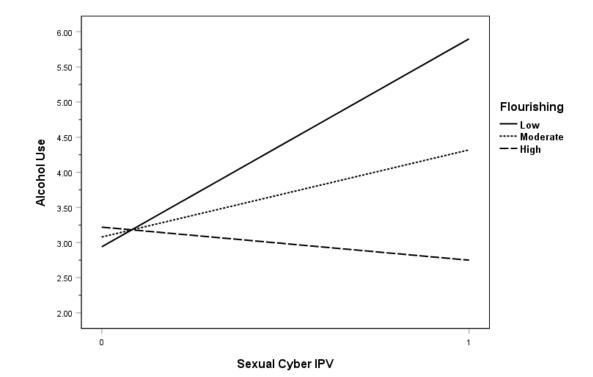
Note: Model $R^2 = .09$, F(6,1122) = 19.34, SE = 19.37, p < .001. Binary gender, psychological cyber IPV, and stalking cyber IPV were controlled for. IPV = intimate partner victimization

Table 30

Conditional Effects of Sexual Cyber IPV on Alcohol Use at Values of Flourishing

| | В | SE | t | р | LLCI | ULCI |
|----------------------|------|-----|------|-----|-------|------|
| Low Flourishing | 2.96 | .42 | 6.97 | .00 | 2.13 | 3.79 |
| Moderate Flourishing | 1.24 | .33 | 3.78 | .00 | .60 | 1.89 |
| High Flourishing | 48 | .48 | 99 | .32 | -1.42 | .47 |

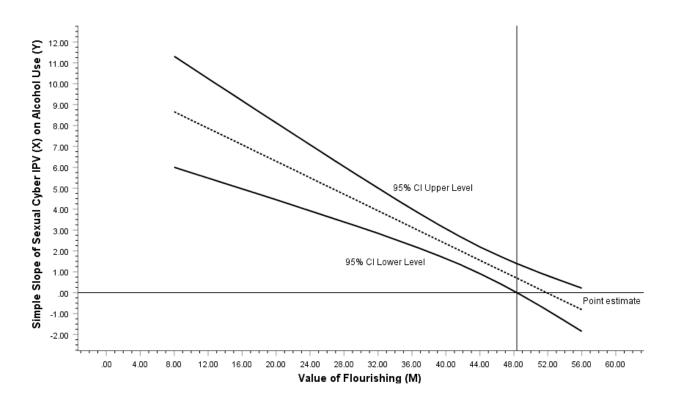
Note: Low flourishing < mean -1 *SD*; moderate flourishing $= \pm 1$ *SD*; high flourishing > mean +1 *SD*. Binary gender, psychological cyber IPV, and stalking cyber IPV were controlled for.



Association between sexual cyber IPV and alcohol use at different levels of flourishing

Note: Low flourishing was fixed at 1 *SD* below the mean, moderate flourishing at the mean, and high flourishing at 1 *SD* above the mean. The relationship is statistically significant at low and moderate levels of flourishing ($p \le 0.01$). The slopes are nonsignificant at high level of flourishing. The relationship indicates victims of sexual cyber IPV and non-victims are statistically different in alcohol use at low and moderate levels of flourishing.

The Johnson-Neyman graph for the model relating alcohol use to sexual cyber IPV, flourishing and their interaction



Note: The effect of sexual cyber IPV on alcohol use is nonsignificant only for higher levels of flourishing. Simple slope crosses over the significance barrier at flourishing = 48.35.

| | В | SE | t | р | LLCI | ULCI |
|-------------------------------------|------|------|-------|-----|------|------|
| Constant | 2.58 | 1.14 | 2.26 | .02 | .34 | 4.81 |
| Stalking Cyber IPV | 5.61 | 1.43 | 3.93 | .00 | 2.81 | 8.42 |
| Flourishing | .03 | .02 | 1.35 | .18 | 01 | .07 |
| Stalking Cyber IPV x Flourishing | 11 | .03 | -3.64 | .00 | 17 | 05 |

Interaction Effect of Staking Cyber IPV and Flourishing on Alcohol Use

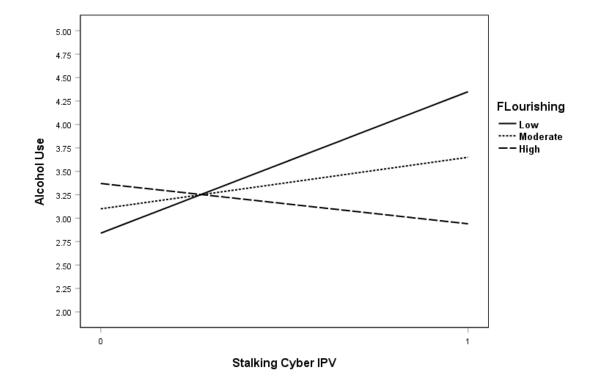
Note: Model $R^2 = .08$, F(6,1122) = 16.34, SE = 19.66, p < .001. Binary gender, psychological cyber IPV, and sexual cyber IPV were controlled for. IPV - intimate partner victimization

Table 32

Conditional Effects of stalking Cyber IPV on Alcohol Use at values of Flourishing

| <i>33365</i> | | | | 0 | 0 | | |
|----------------------|------|-----|-------|-----|-------|------|--|
| | В | SE | t | р | LLCI | ULCI | |
| Low Flourishing | 1.51 | .41 | 3.71 | .00 | .71 | 2.31 | |
| Moderate Flourishing | .54 | .30 | 1.78 | .08 | 06 | 1.14 | |
| High Flourishing | 43 | .40 | -1.07 | .29 | -1.21 | .36 | |

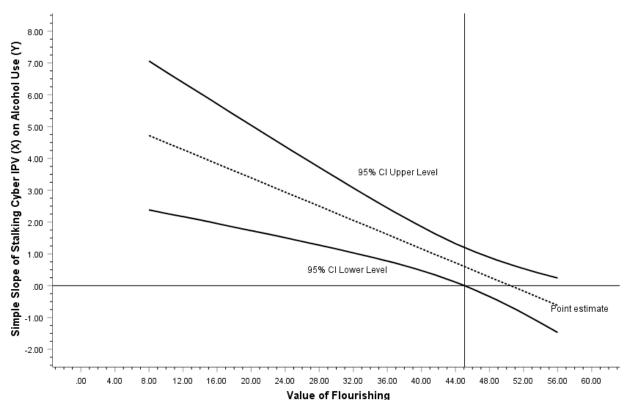
Note: Low flourishing < mean -1 *SD*; moderate flourishing $= \pm 1$ *SD*; high flourishing > mean +1 *SD*. Binary gender, psychological cyber IPV, and sexual cyber IPV were controlled for.



Association between stalking cyber IPV and alcohol use at different levels of flourishing

Note: Low flourishing was fixed at 1 *SD* below the mean, moderate flourishing at the mean, and high flourishing at 1 *SD* above the mean. The relationship is statistically significant at low level flourishing ($p \le 0.01$). The slopes are nonsignificant at moderate and high levels of flourishing. The relationship indicates victims of stalking cyber IPV and non-victims are statistically different in alcohol use at low level of flourishing, and not at moderate and high levels of flourishing.

The Johnson-Neyman graph for the model relating alcohol use to stalking cyber IPV, flourishing and their interaction



Note: The effect of stalking cyber IPV on alcohol use is nonsignificant only for higher levels of flourishing. Simple slope crosses over the significance barrier at flourishing = 45.07.

APPENDIX E

APPENDIX E

Table 33

Interaction Effect of Cumulative Cyber IPV and Cognitive Reappraisal on Depression

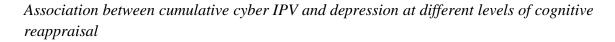
| | В | SE | t | р | LLCI | ULCI |
|---|-------|------|-------|-----|------|-------|
| Constant | 2.28 | 1.41 | 1.62 | .11 | 48 | 5.05 |
| One Type of Cyber IPV | 6.94 | 2.06 | 3.36 | .00 | 2.89 | 10.99 |
| Two Types of Cyber IPV | 7.56 | 1.88 | 4.03 | .00 | 3.88 | 11.25 |
| Three Types of Cyber IP | 10.46 | 2.27 | 4.62 | .00 | 6.02 | 14.91 |
| Cognitive Reappraisal | .05 | .04 | 1.23 | .22 | 03 | .13 |
| One Type of Cyber IPV x Cognitive Reappraisal | 17 | .07 | -2.47 | .01 | 30 | 03 |
| Two Types of Cyber IPV x Cognitive Reappraisal | 17 | .06 | -2.85 | .00 | 29 | 05 |
| Three Types of Cyber IPV x Cognitive Reappraisal | 23 | .03 | -3.03 | .00 | 37 | 08 |

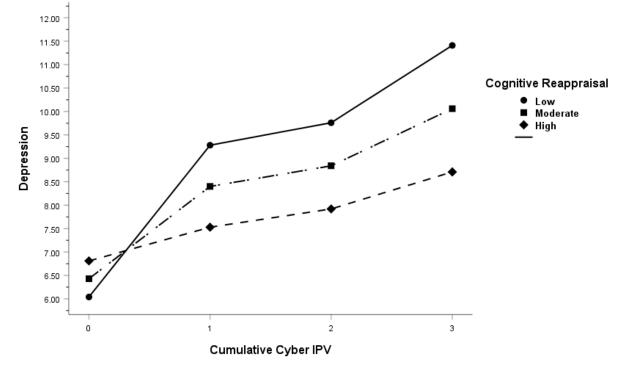
Note: Model $R^2 = .07$, F(8,1120) = 11.08, SE = 37.60, p < .01. Binary gender was controlled for. No-victimization (0) was the reference group. IPV = intimate partner victimization

Conditional Effects of Cumulative Cyber IPV on Depression at values of Cognitive Reappraisal

| | В | SE | t | р | LLCI | ULCI |
|--------------------------------|------|-----|------|-----|------|------|
| Low Cognitive Reappraisal | | | | | | |
| One Type of Cyber IPV | 3.23 | .72 | 4.51 | .00 | 1.83 | 4.64 |
| Two Types of Cyber IPV | 3.72 | .67 | 5.57 | .00 | 2.41 | 5.03 |
| Three Types of Cyber IPV | 5.36 | .76 | 7.05 | .00 | 3.87 | 6.86 |
| Moderate Cognitive Reappraisal | | | | | | |
| One Type of Cyber IPV | 1.97 | .52 | 3.83 | .00 | .96 | 2.99 |
| Two Types of Cyber IPV | 2.42 | .48 | 5.07 | .00 | 1.48 | 3.35 |
| Three Types of Cyber IPV | 3.63 | .56 | 6.46 | .00 | 2.53 | 4.74 |
| High Cognitive Reappraisal | | | | | | |
| One Type of Cyber IPV | .72 | .73 | .98 | .33 | 72 | 2.15 |
| Two Types of Cyber IPV | 1.11 | .65 | 1.70 | .09 | 17 | 2.39 |
| Three Types of Cyber IPV | 1.90 | .84 | 2.26 | .02 | .25 | 3.55 |

Note: Low cognitive reappraisal < mean -1 *SD*; moderate cognitive reappraisal = ± 1 *SD*; high cognitive reappraisal > mean +1 *SD*. Binary gender was controlled for. No-victimization (0) was the reference group.





Note: Low cognitive reappraisal was fixed at 1 *SD* below the mean, moderate cognitive reappraisal at the mean, and high cognitive reappraisal at 1 *SD* above the mean. Interaction effects were statistically significant for exposures to one type of cyber IPV (vs. no victimization), two types of cyber IPV (vs. no victimization), and three types of cyber IPV (vs. no victimization).

| | В | SE | t | р | LLCI | ULCI |
|---|------|------|-------|-----|-------|------|
| Constant | 3.46 | 1.03 | 3.37 | .00 | 1.44 | 5.47 |
| One Type of Cyber IPV | 29 | 1.50 | 20 | .84 | -3.24 | 2.65 |
| Two Types of Cyber IPV | 3.24 | 1.37 | 2.37 | .02 | .56 | 5.92 |
| Three Types of Cyber IP | 6.58 | 1.65 | 3.99 | .00 | 3.35 | 9.81 |
| Cognitive Reappraisal | .03 | .03 | .85 | .39 | 03 | .08 |
| One Type of Cyber IPV x Cognitive Reappraisal | .03 | .05 | .56 | .57 | 07 | .12 |
| Two Types of Cyber IPV x Cognitive Reappraisal | 07 | .04 | -1.59 | .11 | 16 | .02 |
| Three Types of Cyber IPV x Cognitive Reappraisal | 11 | .05 | -2.08 | .04 | 22 | 01 |

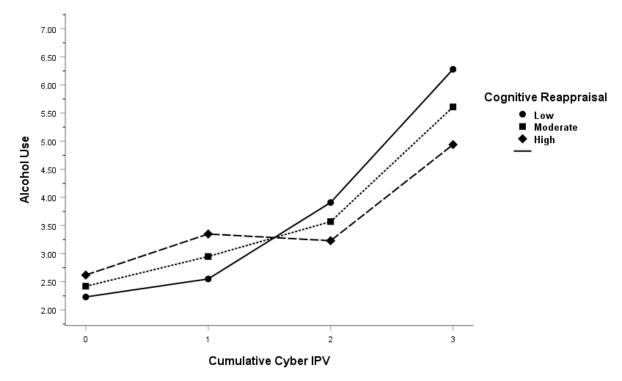
Interaction Effect of Cumulative Cyber IPV and Cognitive Reappraisal on Alcohol Use

Note: Model $R^2 = .07$, F(8,1120) = 10.88, SE = 19.87, p < .01. Binary gender was controlled for. No victimization (0) was the reference group. IPV = intimate partner victimization

Conditional Effects of Cumulative Cyber IPV on Alcohol Use at values of Cognitive Reappraisal

| | В | SE | t | р | LLCI | ULCI |
|--------------------------------|------|-----|------|-----|------|------|
| Low Cognitive Reappraisal | | | | | | |
| One Type of Cyber IPV | .32 | .52 | .62 | .54 | 70 | 1.34 |
| Two Types of Cyber IPV | 1.68 | .49 | 3.45 | .00 | .72 | 2.63 |
| Three Types of Cyber IPV | 4.04 | .55 | 7.31 | .00 | 2.96 | 5.13 |
| Moderate Cognitive Reappraisal | | | | | | |
| One Type of Cyber IPV | .53 | .37 | 1.41 | .16 | 21 | 1.26 |
| Two Types of Cyber IPV | 1.15 | .35 | 3.32 | .00 | .47 | 1.83 |
| Three Types of Cyber IPV | 3.18 | .41 | 7.78 | .00 | 2.38 | 3.98 |
| High Cognitive Reappraisal | | | | | | |
| One Type of Cyber IPV | .74 | .53 | 1.39 | .17 | 31 | 1.78 |
| Two Types of Cyber IPV | .62 | .47 | 1.30 | .19 | 31 | 1.55 |
| Three Types of Cyber IPV | 2.32 | .61 | 3.80 | .00 | 1.12 | 3.52 |

Note: Low cognitive reappraisal < mean -1 *SD*; moderate cognitive reappraisal $= \pm 1$ *SD*; high cognitive reappraisal > mean +1 *SD*. Binary gender was controlled for. No-victimization (0) was the reference group.



Association between cumulative cyber IPV and alcohol use at different levels of cognitive reappraisal

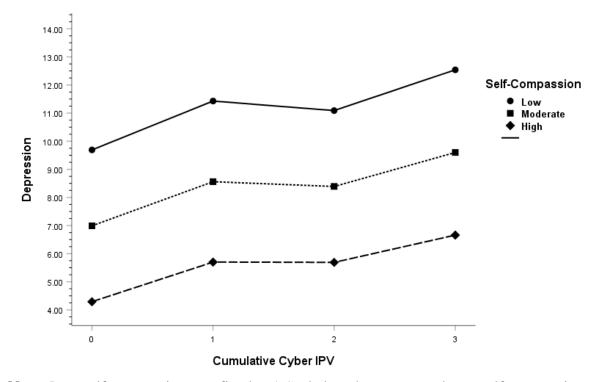
Note: Low cognitive reappraisal was fixed at 1 *SD* below the mean, moderate cognitive reappraisal at the mean, and high cognitive reappraisal at 1 *SD* above the mean. Interaction effect was only statistically significant for exposure to three types of cyber IPV (vs. no victimization).

| | В | SE | t | р | LLCI | ULCI |
|---|-------|------|-------|-----|-------|-------|
| Constant | 18.11 | 1.74 | 10.41 | .00 | 14.70 | 21.53 |
| One Type of Cyber IPV | 2.32 | 2.23 | 1.04 | .30 | -2.05 | 6.70 |
| Two Types of Cyber IPV | 1.38 | 2.13 | .65 | .52 | -2.80 | 5.56 |
| Three Types of Cyber IP | 3.72 | 2.49 | 1.49 | .14 | -1.16 | 8.60 |
| Self-Compassion | 34 | .04 | -8.42 | .00 | 42 | 26 |
| One Type of Cyber IPV x Self- Compassion | 02 | .06 | 36 | .72 | 13 | .09 |
| Two Types of Cyber IPV x Self-Compassion | .00 | .06 | .01 | .99 | 11 | .11 |
| Three Types of Cyber IPV x Self-Compassion | 03 | .07 | 45 | .65 | 16 | .10 |

Interaction Effect of Cumulative Cyber IPV and Self-Compassion on Depression

Note: Model $R^2 = .24$, F(8,1120) = 44.23, SE = 30.83, p < .01. Binary gender was controlled for. No-victimization (0) was the reference group. IPV = intimate partner victimization

Association between cumulative cyber IPV and depression at different levels of self-compassion

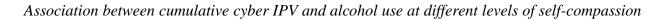


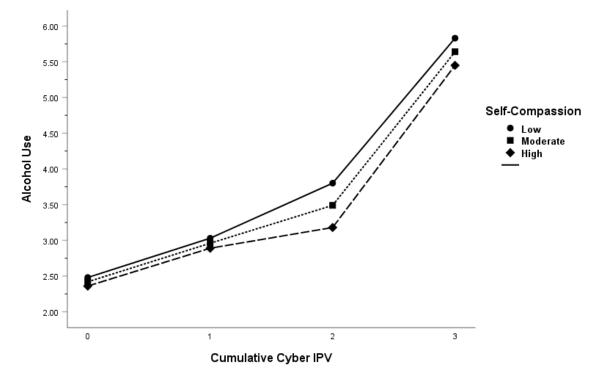
Note: Low self-compassion was fixed at 1 *SD* below the mean, moderate self-compassion at the mean, and high self-compassion at 1 *SD* above the mean. No interaction effects were observed.

| В | SE | t | n | LLCI | ULCI |
|------|----------------------------------|---|--|--|---|
| D | SE | Ľ | P | | 0201 |
| 4.54 | 1.40 | 3.24 | .00 | 1.79 | 7.29 |
| | | | | | |
| .59 | 1.79 | .33 | .74 | -2.93 | 4.11 |
| | | | | | |
| 2 23 | 1 72 | 1 30 | 19 | -1 14 | 5.60 |
| 2.23 | 1.72 | 1.50 | .17 | 1.14 | 5.00 |
| 2.01 | 2.00 | 1.00 | 06 | 10 | 7 7 4 |
| 3.81 | 2.00 | 1.90 | .06 | 12 | 7.74 |
| | | | | | |
| 01 | .03 | 23 | .82 | 07 | .06 |
| | | | | | |
| .00 | .05 | 03 | .98 | 09 | .09 |
| | | | | | |
| 03 | .05 | 70 | .49 | 12 | .06 |
| | | | | | |
| 02 | 05 | 20 | 76 | 12 | 00 |
| 02 | .05 | 30 | ./0 | 12 | .09 |
| | .59 2.23 3.81 01 .00 | 4.54 1.40 .59 1.79 2.23 1.72 3.81 2.00 01 .03 .00 .05 03 .05 | 4.54 1.40 3.24 $.59$ 1.79 $.33$ 2.23 1.72 1.30 3.81 2.00 1.90 01 $.03$ 23 $.00$ $.05$ 03 03 $.05$ 70 | 4.54 1.40 3.24 $.00$ $.59$ 1.79 $.33$ $.74$ 2.23 1.72 1.30 $.19$ 3.81 2.00 1.90 $.06$ 01 $.03$ 23 $.82$ $.00$ $.05$ 03 $.98$ 03 $.05$ 70 $.49$ | 4.54 1.40 3.24 $.00$ 1.79 $.59$ 1.79 $.33$ $.74$ -2.93 2.23 1.72 1.30 $.19$ -1.14 3.81 2.00 1.90 $.06$ 12 01 $.03$ 23 $.82$ 07 $.00$ $.05$ 03 $.98$ 09 03 $.05$ 70 $.49$ 12 |

Interaction Effect of Cumulative Cyber IPV and Self-Compassion on Alcohol Use

Note: Model $R^2 = .07$, F(8,1120) = 10.04, SE = 19.98, p < .01. Binary gender was controlled for. No-victimization (0) was the reference group. IPV = intimate partner victimization





Note: Low self-compassion was fixed at 1 *SD* below the mean, moderate self-compassion at the mean, and high self-compassion at 1 *SD* above the mean. No interaction effects were observed.

| | В | SE | t | р | LLCI | ULCI |
|---|-------|------|-------|-----|------|-------|
| Constant | 9.51 | 1.61 | 5.92 | .00 | 6.36 | 12.67 |
| One Type of Cyber IPV | 12.14 | 2.65 | 4.58 | .00 | 6.94 | 17.34 |
| Two Types of Cyber IPV | 10.63 | 2.35 | 4.52 | .00 | 6.02 | 15.24 |
| Three Types of Cyber IP | 9.52 | 2.56 | 3.72 | .00 | 4.50 | 14.54 |
| Flourishing | 14 | .03 | -4.35 | .00 | 20 | 08 |
| One Type of Cyber IPV x Flourishing | 22 | .06 | -3.92 | .00 | 33 | 11 |
| Two Types of Cyber IPV x Flourishing | 18 | .05 | -3.66 | .00 | 28 | 09 |
| Three Types of Cyber IPV x Flourishing | 14 | .06 | -2.48 | .01 | 25 | 03 |

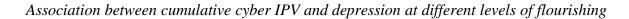
Interaction Effect of Cumulative Cyber IPV and Flourishing on Depression

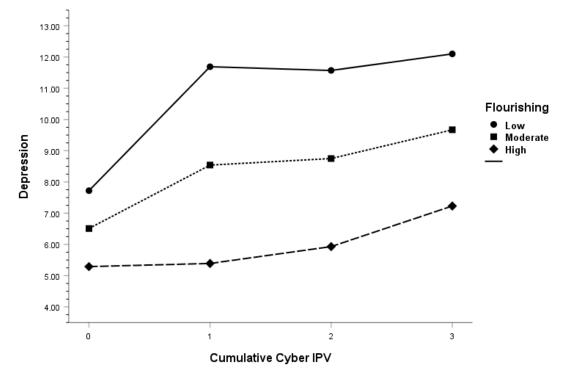
Note: Model $R^2 = .19$, F(8,1120) = 32.64, SE = 32.90, p < .01. Binary Gender was controlled for. No-victimization (0) was the reference group. IPV = intimate partner victimization

| | В | SE | t | р | LLCI | ULCI |
|--------------------------|------|-----|------|-----|-------|------|
| Low Flourishing | | | | | | |
| One Type of Cyber IPV | 3.96 | .71 | 5.57 | .00 | 2.57 | 5.35 |
| Two Types of Cyber IPV | 3.84 | .64 | 6.05 | .00 | 2.60 | 5.09 |
| Three Types of Cyber IPV | 4.37 | .76 | 6.40 | 00 | 3.03 | 5.72 |
| Moderate Flourishing | | | | | | |
| One Type of Cyber IPV | 2.03 | .48 | 4.21 | .00 | 1.08 | 2.98 |
| Two Types of Cyber IPV | 2.24 | .44 | 5.05 | .00 | 1.37 | 3.11 |
| Three Types of Cyber IPV | 3.16 | .53 | 5.95 | .00 | 2.12 | 4.20 |
| High Flourishing | | | | | | |
| One Type of Cyber IPV | .10 | .73 | .98 | .88 | -1.21 | 1.41 |
| Two Types of Cyber IPV | .64 | .65 | 1.70 | .30 | 56 | 1.84 |
| Three Types of Cyber IPV | 1.94 | .84 | 2.26 | .01 | .45 | 3.43 |

Conditional Effects of Cumulative Cyber IPV on Depression at values of Flourishing

Note: Low flourishing < mean -1 *SD*; moderate flourishing $= \pm 1$ *SD*; high flourishing > mean +1 *SD*. Binary gender was controlled for. No-victimization (0) was the reference group.





Note: Low flourishing was fixed at 1 *SD* below the mean, moderate flourishing at the mean, and high flourishing at 1 *SD* above the mean. Interaction effects were statistically significant for exposures to one type of cyber IPV (vs. no victimization), two types of cyber IPV (vs. no victimization), and three types of cyber IPV (vs. no victimization).

| 55 5 | 2 | | 0 | | | |
|---|-------|------|-------|-----|-------|-------|
| | В | SE | t | р | LLCI | ULCI |
| Constant | 3.26 | 1.24 | 2.63 | .01 | .83 | 5.68 |
| One Type of Cyber IPV | -1.00 | 2.04 | 49 | .62 | -5.00 | 3.00 |
| Two Types of Cyber IPV | 4.19 | 1.81 | 2.32 | .02 | .64 | 7.74 |
| Three Types of Cyber IP | 12.20 | 1.97 | 6.20 | .00 | 8.34 | 16.06 |
| Flourishing | .02 | .02 | .77 | .44 | 03 | .07 |
| One Type of Cyber IPV x Flourishing | .03 | .04 | .78 | .44 | 05 | .12 |
| Two Types of Cyber IPV x Flourishing | 07 | .04 | -1.73 | .08 | 14 | .01 |
| Three Types of Cyber IPV x Flourishing | 20 | .04 | -4.71 | .00 | 29 | 12 |

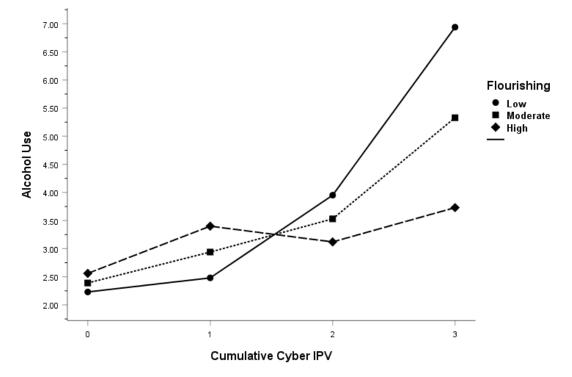
Interaction Effect of Cumulative Cyber IPV and Flourishing on Alcohol Use

Note: Model $R^2 = .09$, F(8,1120) = 14.11, SE = 19.46, p < .001. Binary gender was controlled for. No-victimization (0) was the reference group. IPV = intimate partner victimization

| | В | SE | t | р | LLCI | ULCI |
|--------------------------|------|-----|------|-----|------|------|
| Low Flourishing | | | | | | |
| One Type of Cyber IPV | .25 | .55 | .45 | .65 | 82 | 1.32 |
| Two Types of Cyber IPV | 1.72 | .49 | 3.53 | .00 | .76 | 2.68 |
| Three Types of Cyber IPV | 4.71 | .53 | 8.96 | .00 | 3.68 | 5.74 |
| Moderate Flourishing | | | | | | |
| One Type of Cyber IPV | .54 | .37 | 1.46 | .14 | 19 | 1.27 |
| Two Types of Cyber IPV | 1.14 | .34 | 3.34 | .00 | .47 | 1.81 |
| Three Types of Cyber IPV | 2.94 | .41 | 7.19 | .00 | 2.14 | 3.74 |
| High Flourishing | | | | | | |
| One Type of Cyber IPV | .84 | .51 | 1.63 | .10 | 17 | 1.84 |
| Two Types of Cyber IPV | .56 | .47 | 1.19 | .24 | 37 | 1.48 |
| Three Types of Cyber IPV | 1.17 | .58 | 2.00 | .05 | .02 | 2.31 |

Conditional Effects of Cumulative Cyber IPV on Alcohol Use at values of Flourishing

Note: Low flourishing < mean -1 *SD*; moderate flourishing $= \pm 1$ *SD*; high flourishing > mean +1 *SD*. Binary gender was controlled for. No-victimization (0) was the reference group.



Association between cumulative cyber IPV and alcohol use at different levels of flourishing

Note: Low flourishing was fixed at 1 *SD* below the mean, moderate flourishing at the mean, and high flourishing at 1 *SD* above the mean. Interaction effect was only statistically significant for exposure to three types of cyber IPV (vs. no victimization).

BIOGRAPHICAL SKETCH

Jorge I. Cantu earned a Master of Arts in Clinical Psychology and a Bachelor of Science in Psychology with a Minor in Sociology at the University of Texas Rio Grande Valley. Since Jorge initiated his Master of Arts in Clinical Psychology, he has been a Graduate Research Assistant at the Adversities in Childhood and Trauma Studies (ACT) Lab, directed by Dr. Ruby Charak. He has two publications in academic journals – one as first author and the other as coauthor. Additionally, he has presented posters at International Society for Trauma and Stress Studies and Association for Behavioral and Cognitive Therapies conferences. His research interest are children, adolescent, and emerging adult psychopathology, as a result of victimization, cybervictimization, trauma, and stress. And identifying risk and protective factors for these associations. Jorge is not only ambitions to be researcher, but a practitioner as well. He completed an internship at Piña & Acosta Psychological Associates, where he conducted psychological assessments. He may be contacted through email at jorgicantu07@gmail.com