

PERCEIVED SOCIAL SUPPORT AND GENDER AS MODERATORS OF THE
RELATIONSHIP BETWEEN INTIMATE PARTNER VIOLENCE AND
POSTTRAUMATIC GROWTH

by

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ABSTRACT

The current study was designed to investigate the moderating effects of participant gender and perceived social support on the relationship between intimate partner violence victimization and posttraumatic growth. Participants included 86 (27 men and 59 women) undergraduate students who completed a questionnaire that included items pertaining to demographics, partner violence, social support, and posttraumatic growth. Data were analyzed using Welch's *t* tests and correlational analyses. Roughly 57% of participants indicated that they had experienced partner abuse on at least one occasion. In the current sample, there was no statistically significant relationship between partner abuse victimization and posttraumatic growth; in light of this, the moderation effects of gender and social support were not explored.

TABLE OF CONTENTS

LIST OF TABLES	v
LIST OF APPENDICES	vi
CHAPTER I: INTRODUCTION.....	1
Posttraumatic Growth	3
Gender Differences in PTG	6
PTG in Victims of Interpersonal Violence	8
PTG in Survivors of Intimate Partner Violence.....	10
PTG and Social Support in Survivors of IPV	12
Summary and Purpose	17
CHAPTER II: METHOD	21
Participants.....	21
Measures	21
Demographics	21
The Composite Abuse Scale	23
Descriptive relationship items.....	25
The Posttraumatic Growth Inventory.....	25
The Multidimensional Scale of Perceived Social Support	27
Procedure	27
CHAPTER III: RESULTS	29
Descriptive Statistics.....	29
Hypotheses Testing.....	29

Hypothesis one.....	29
Hypothesis two.....	31
Hypothesis three.....	31
Hypothesis four.....	31
Exploratory Analyses.....	34
CHAPTER IV: DISCUSSION	36
REFERENCES	41
APPENDICES	57

LIST OF TABLES

TABLE 1: Demographic Frequencies of Final Sample	22
TABLE 2: Comparison of Men and Women on the Study Variables.	30
TABLE 3: Correlations Among MSPSS, CAS, and PTGI Total and Subscale Scores for the Overall Sample	32
TABLE 4: Correlations Among MSPSS, CAS, and PTGI Total and Subscale Scores for Men ($n = 27$) and Women ($n = 59$).....	33

LIST OF APPENDICES

APPENDIX A: IRB Approval Page	58
APPENDIX B: Revised IRB Approval Page	61
APPENDIX C: Demographic Items	64
APPENDIX D: Descriptive Relationship Items	65
APPENDIX E: Informed Consent	66
APPENDIX F: Debriefing Form	69

CHAPTER I: INTRODUCTION

The Centers for Disease Control and Prevention (CDC, 2019) defines intimate partner violence (IPV) as “abuse or aggression that occurs in a close relationship” with intimate partner referring to “both current and former spouses and dating partners” (p. 1). The CDC further notes that IPV can include physical, sexual, or psychological abuse as well as stalking. As defined by Smith et al. (2018), physical partner abuse involves the use of physical force to harm a partner, such as by hitting or kicking. Further, they define sexual IPV as when an individual attempts to force or coerce their partner into engaging in unwanted sexual activity. Smith et al. (2018) state that psychological partner abuse includes behaviors such as attempting to control a partner, insulting a partner, or calling them names. Additionally, Smith et al. (2018) define stalking as unwanted attention that involves threatening or harassing a former or current partner. They conceptualize harassment as including actions such as repeatedly making unwanted phone calls, following a current or former partner, and making unwanted visits to the victim’s school, home, or place of work.

Smith et al. (2018) estimated that 36.4% of women and 33.6% of men in the United States of America (U.S.) experience sexual IPV, physical IPV, and/or stalking by an intimate partner within their lifetime. In terms of psychological partner aggression in the U.S., men and women report similar rates of lifetime prevalence with slightly over one-third of both genders experiencing psychological IPV (Smith et al., 2018). This information from Smith et al.’s (2018) data brief on the National Intimate Partner and

Sexual Violence Survey suggests that intimate partner violence is prevalent within the U.S.

Studies (e.g., Dardis et al., 2020; Wolford-Clevenger et al., 2016) suggest that intimate partner violence may be prevalent among university students. Chan et al. (2008) conducted an international study that investigated IPV in samples of college students across 21 countries. That study focused on physical assault and sexual coercion by intimate partners. Physical and sexual IPV had a median prevalence of 26% and 24%, respectively, within the 12 months prior to data collection for that study (Chan et al., 2008). This indicates that partner abuse among college students may be a pressing social issue that occurs worldwide.

There have been a number of studies that have investigated partner violence specifically in U.S. undergraduate samples. In one such study, Rutter et al. (2012) found that men and women indicated similar rates of partner abuse, with slightly over 20% of both men and women having experienced physical abuse in the past year. Nearly 75% of both genders in that study (Rutter et al., 2012) indicated that they had experienced psychological abuse within the year before data collection. Additionally, Wolford-Clevenger et al. (2016) reported that 53% of their U.S. university sample indicated having experienced some form of physical abuse, emotional abuse, or harassment in a relationship within the year prior to taking the survey. In a recent study, Dardis et al. (2020) found that 45% of women and 60% of men indicated that they had been the victims of psychological IPV within the past year. Roughly 11% of women and 26% of men in that study (Dardis et al., 2020) indicated that they had experienced physical IPV

in the year prior to taking the survey. Although the rates indicated by these studies vary, each of them suggests that intimate partner violence is prevalent among college students within the U.S.

IPV victimization is associated with a variety of negative correlates. Cody et al. (2017), for example, found that many of the women in their sample who had been abused by a partner met diagnostic criteria for depressive disorders (40%), generalized anxiety disorder (55%), and posttraumatic stress disorder (PTSD, 27%). Furthermore, studies (e.g., Wolford-Clevenger et al., 2016, 2017) have found suicidal ideation to be linked to partner violence victimization, as well. Previous research (e.g., Cody et al., 2017; Wolford-Clevenger et al., 2016), therefore, has identified a range of negative correlates that are related to partner abuse.

Overall, the available literature suggests that intimate partner violence is prevalent in U.S. community samples (Smith et al., 2018) and in university samples (e.g., Dardis et al., 2020). IPV victimization has been linked to a range of negative correlates, such as symptoms of depression and anxiety (e.g., Cody et al., 2017). It is important to note, however, that a more limited body of research (e.g., Linley & Joseph, 2004; Tedeschi & Calhoun, 2004; Webster & Deng, 2015) suggests that traumatic experiences, such as IPV victimization, also have the potential to yield unexpected positive outcomes. The current study sought to add to this literature by investigating posttraumatic growth in survivors of partner abuse.

Posttraumatic Growth

Researchers have been interested in the possible perceived benefits of trauma for decades. Affleck et al. (1987) interviewed individuals who had experienced heart

attacks. Participants in that study (Affleck et al., 1987) reported positive changes in their interpersonal relationships and a greater appreciation for daily life. Moreover, survivors of natural disasters have indicated increases in personal strength along with changes in their priorities (McMillen et al., 1997). In female victims of childhood sexual abuse, McMillen et al. (1995) found that many women reported increases in personal strength and empathy for others. Furthermore, Burt and Katz (1987) reported that many survivors of rape indicated that they had become more independent and had developed a stronger sense of self-worth due to their experiences. As these studies suggest, the concept of positive transformation after traumatic events has been explored in a variety of contexts.

The term “posttraumatic growth” (p. 458) first appeared in the literature in 1996 (Tedeschi & Calhoun, 1996). Tedeschi and Calhoun (1996) defined posttraumatic growth (PTG) as positive changes or personal growth in the aftermath of trauma. Tedeschi and Calhoun (1996) theorized that PTG can occur when a traumatic event forces an individual to reevaluate their assumptions about themselves and the world. It is theorized that this change in perspective allows an individual to experience positive changes after the adverse event, such as by constructing a stronger sense of identity, building stronger interpersonal relationships, or assigning new meaning to life (Tedeschi & Calhoun, 2004).

PTG encompasses a range of positive outcomes in a variety of domains. Some research (e.g., Leiva-Bianchi & Araneda, 2015; Rodríguez-Rey et al., 2016) has suggested that there are three distinct factors of PTG. Tedeschi and Calhoun (1996, 2004), however, conceptualized PTG as having five domains including relating to others, new possibilities, personal strength, spiritual change, and appreciation of life. Factor

analyses (e.g., Ramos et al., 2016; Saltzman et al., 2015; Silverstein et al., 2018)

generally have supported this five-factor model of posttraumatic growth.

Posttraumatic growth has been documented in the aftermath of a variety of traumatic experiences. For example, research (e.g., Stein et al., 2018; Taylor, 2020) consistently has supported the experience of growth after the death of a loved one. Multiple studies (e.g., Chen et al., 2020; Romeo et al., 2020) also have found personal growth to be prevalent among cancer survivors. PTG has been documented in the context of living through natural disasters, as well (e.g., Chen et al., 2015; Manove et al., 2019). In terms of violence, posttraumatic growth has been documented in combat veterans (e.g., Hawker & Nino, 2017; Nordstrand et al., 2020), victims of political violence (e.g., Cárdenas Castro et al., 2019; Gasparre et al., 2010; Hawley et al., 2017), and abuse victims (e.g., Ha et al., 2019; Sheridan & Carr, 2020). According to a meta-analysis by Wu et al. (2019) that included studies on a variety of traumatic experiences, roughly 52% of trauma survivors indicate moderate-to-high levels of posttraumatic growth in the aftermath of adverse experiences.

Survivors of different types of trauma may have different posttraumatic growth experiences. Lowe et al. (2020) analyzed data that had been previously collected for the Nurses' Health Study II (Bao et al., 2016, as cited in Lowe et al., 2020). Women who had experienced bereavement, IPV, physical assault, or rape were included in the original study (Bao et al., 2016). The portion of those women who had met the screening criteria for a probable PTSD diagnosis were included in the later analysis (Lowe et al., 2020), which investigated variation in PTG levels based on trauma type. Lowe et al. (2020) found that rape survivors indicated lower levels of PTG than participants who had

reported other traumatic events. Statistically significant differences in levels of growth across the other trauma types, however, were limited to specific PTG domains. IPV survivors, for example, had mean subscale scores that indicated more growth in the “personal strength” and “new possibilities” areas of PTG compared to survivors of other traumatic experiences, such as bereavement, physical assault, or rape. This suggests that patterns of posttraumatic growth may vary based on the type of traumatic event experienced by the individual.

Gender Differences in PTG

Gender differences in levels of posttraumatic growth have been observed across a variety of contexts. For example, in an undergraduate sample reporting on a variety of stressful experiences, the mean PTG score for women was statistically significantly higher than the mean PTG score for men (Baker et al., 2008). Additionally, in a study of PTG in bereaved parents (Albuquerque et al., 2018), women indicated statistically significantly higher levels of growth than men. With regard to men and women who had recently experienced the end of a romantic relationship, Tashiro and Frazier (2003) also found that women indicated statistically significantly higher levels of PTG than men.

It is important to note, however, that findings on gender differences in PTG levels are not unanimous. Some studies, such as Arpwong et al.’s (2013) research on cancer survivors, for example, have shown that men may indicate experiencing statistically significantly higher levels of growth than women. In contrast, some studies (e.g., Barlow & Hetzel-Riggin, 2018; Nelson, 2016) have reported no statistically significant gender differences in PTG. Vishnevsky et al. (2010) conducted a meta-analysis to better understand how gender may relate to levels of growth after trauma. They explored the

magnitude of gender differences observed across 70 studies that investigated PTG after a wide range of traumatic experiences. Although there was a range of effect sizes (-0.02 to 0.75) across those 70 studies, Vishnevsky et al. (2010) concluded that a small-to-moderate effect size does exist, with women generally indicating higher levels of PTG than men.

The relationship between gender and posttraumatic growth may be influenced by a variety of factors. Vishnevsky et al.'s (2010) meta-analysis also explored potential moderators of gender differences in self-reported PTG. They found that the gender differences were more pronounced in studies with older participants. Furthermore, results from Barlow and Hetzel-Riggin's (2018) study suggested that gender role adherence, rather than gender, may predict PTG levels. That study (Barlow & Hetzel-Riggin, 2018) revealed that participants who indicated having a strong gender identity (i.e., masculine, feminine, or both/androgynous) indicated higher levels of PTG than participants who did not have a strong gender role identity. This suggests, therefore, that the variation in findings on gender differences across studies may be related to factors such as varying mean age (Vishnevsky et al., 2010) or the gender role adherence (Barlow & Hetzel-Riggin, 2018) of the participants in those studies.

To summarize, survivors of a variety of traumatic experiences have indicated experiencing posttraumatic growth (e.g., Chen et al., 2020; Sheridan & Carr, 2020; Taylor, 2020). Lowe et al.'s (2020) study demonstrated that different adverse events may lead survivors to experience PTG in different ways, such that victims of intimate partner violence may score higher in the personal strength and new possibilities domains than survivors of other traumatic experiences. Considering that some research (e.g.,

Albuquerque et al., 2018) has found statistically significant gender differences in posttraumatic growth scores, variability in levels of PTG also may be related to gender. The existing literature, therefore, suggests that it may be important to consider the potential influences of specific traumatic experiences and the victim's gender when studying posttraumatic growth.

PTG in Victims of Interpersonal Violence

The World Health Organization (WHO, 2002) defines interpersonal violence as acts of violence that occur between individuals. The WHO further states that this category of violence includes community violence, family violence, and intimate partner violence. According to a recent meta-analysis (Elderton et al., 2017), an average of 71% of survivors of interpersonal violence, including victims of physical assault, sexual assault, and IPV, indicate that they have experienced posttraumatic growth. In research on female victims of physical or sexual assault, for example, nearly 99% of the women had indicated experiencing some degree of personal growth (Grubaugh & Resick, 2007). Furthermore, Easton et al. (2013) found that men who had been sexually abused as children indicated moderate levels of PTG. Schaefer et al. (2018) reported that, for their sample of men and women who had been victims of physical violence or traumatic sexual experiences before 18 years of age, the mean PTG score reflected moderate-to-high levels of growth. The existing literature suggests, therefore, that posttraumatic growth may be prevalent in survivors of interpersonal violence.

The level of posttraumatic growth experienced by victims of interpersonal trauma can be influenced by a number of factors. Coping styles (e.g., Cole & Lynn, 2010;

Schaefer et al., 2018) and deliberate rumination (e.g., Allbaugh et al., 2016; Cárdenas Castro et al., 2019), for example, have been associated with PTG outcomes for survivors of interpersonal violence. Another factor that is relevant to interpersonal violence and PTG is social support (e.g., Frazier et al., 2004; Gasparre et al., 2010; Hawley et al., 2017). Tedeschi and Calhoun (2004) highlighted the importance of support from others in their model of PTG. It has been theorized that adequate social support can be a crucial resource for processing the impact of trauma and for changing an individual's perspective of oneself and the world (Tedeschi, 1999; Tedeschi & Calhoun, 2004).

Some research (e.g., Frazier et al., 2004; Hawker & Nino, 2017) provides evidence for the association between social support and PTG. In a qualitative study (Hawker & Nino, 2017), for instance, combat veterans believed that their supportive friends and family contributed to their personal growth after wartime experiences. Similarly, Frazier et al. (2004) found that higher amounts and greater quality of perceived social support were associated with higher levels of PTG in a clinical sample of women who sought treatment for sexual assault. These examples of previous research suggest that social support may be positively correlated with personal growth in survivors of interpersonal violence, with more perceived social support being associated with higher levels of PTG.

There are studies (e.g., Schaefer et al., 2018; Stermac et al., 2014), however, that have not found a statistically significant relationship between social support and growth after interpersonal trauma. Stermac et al. (2014), for example, found that social support did not mediate the relationship between posttraumatic stress symptoms and PTG in their predominately female sample of sexual assault survivors. Furthermore, in a study of

male survivors of childhood sexual abuse (Easton et al., 2013), supportive reactions to the disclosure of the abuse were not significantly related to levels of PTG. In a recent study of college students who had experienced child abuse (Schaefer et al., 2018), social support was associated with the related concept of resilience, but not with posttraumatic growth. This suggests that the potential influence that social support may have on levels of PTG needs to be researched further in order to understand the inconsistent findings in the existing literature.

Overall, studies (e.g., Elderton et al., 2017; Schaefer et al., 2018) have found that victims of interpersonal violence generally indicate having experienced some degree of PTG after their traumatic experiences. Posttraumatic growth may be impacted by a variety of factors. Social support, for example, has been related to personal growth for female sexual assault survivors (e.g., Frazier et al., 2004) and combat veterans (Hawker & Nino, 2017). Considering the variance in the available literature, though, the role of social support in the personal growth of survivors of interpersonal trauma is a topic that warrants further investigation.

PTG in Survivors of Intimate Partner Violence

As mentioned above, intimate partner violence (IPV) is one subclassification of interpersonal violence (WHO, 2002). Self-reported growth in victims of intimate partner abuse has garnered the interest of researchers. Cobb et al. (2006), for example, investigated PTG in 60 women who had experienced physical and/or nonphysical partner abuse and who had been utilizing the services of domestic violence shelters. In that survey, posttraumatic growth was measured using the Posttraumatic Growth Inventory

(PTGI, Tedeschi & Calhoun, 1996). The mean PTGI score reported by Cobb et al. (2006) reflected moderate levels of personal growth in that sample.

Other studies (e.g., Samios et al., 2020; Valdez & Lilly, 2015) have yielded similar findings. Valdez and Lilly (2015), for instance, studied PTG in a clinical sample of 23 women who had experienced physical IPV within the 6 months prior to data collection. The majority (87%) of those women indicated that they had experienced personal growth in the aftermath of their abuse. It is important to note, however, that three women included in that study indicated an average item rating score that was less than 1, which was considered by the researchers (Valdez & Lilly, 2015) to represent no posttraumatic growth. Though some women did not indicate having experienced PTG, the mean PTG score for participants of that study reflected a moderate degree of growth.

Bakaitytė et al. (2020) explored posttraumatic growth in a Lithuanian sample of 217 female survivors of physical, sexual, psychological, and/or economic IPV. The women were recruited to participate in that longitudinal study through shelters, support centers, and psychologists. Bakaitytė et al. (2020) found that, on average, the women indicated moderate levels of PTG at the onset of the study. Another key finding of that study was that levels of posttraumatic growth increased as time since the victimization increased. Increases in PTG scores were especially pronounced throughout the first 2 years after the end of the abusive relationship.

Samios et al.'s (2020) online study is another example of recent research in this area. That study was focused on men and women who had experienced psychological abuse by a partner. Overall scores on the PTGI indicated that the sample experienced a moderate degree of growth after victimization. It also is important to note that

statistically significant gender differences emerged in the analyses for that study, with the mean PTGI score for women being higher than the mean score for men.

Studies such as these (Bakaitytè et al., 2020; Cobb et al., 2006; Samios et al., 2020; Valdez & Lilly, 2015) suggest that IPV survivors may experience at least moderate levels of posttraumatic growth. It is important to consider, however, that the majority of these studies (e.g., Bakaitytè et al., 2020; Valdez & Lilly, 2015) were conducted with entirely female samples. Considering that Samios et al. (2020) found that women had PTG scores that were statistically significantly higher than those of men, the findings of some of the studies discussed in this section (e.g., Bakaitytè et al., 2020; Valdez & Lilly, 2015) may not be generalizable to men who have experienced IPV. Further, many studies on this topic have utilized clinical samples gathered from community support centers (e.g., Bakaitytè et al., 2020). Given that IPV has been found to be prevalent in university samples (e.g., Wolford-Clevenger et al., 2016), it may be useful to collect data on IPV and PTG in undergraduate students. It also is important to note that stalking or harassing behaviors were not included in the conceptualization and measurement of partner abuse for many of the studies discussed in this section (e.g., Valdez & Lilly, 2015). According to Smith et al. (2018), an estimated 10% of women and 2% of men experience stalking by an intimate partner within their lifetime. This highlights the need for IPV research that takes partner harassment and/or stalking into consideration, investigates partner violence in college students, and includes male survivors of IPV.

PTG and Social Support in Survivors of IPV

As discussed previously, social support may be related to levels of PTG after interpersonal trauma (e.g., Hawker & Nino, 2017). The existing literature (e.g., Brosi et

al., 2020; Žukauskienė et al., 2019) suggests that the same may be true for victims of intimate partner violence. A mixed methods study by Anderson et al. (2012), for example, investigated the factors that influenced the recovery process for 37 women who had been in relationships in which their male partners were physically, sexually, or verbally abusive. When asked to discuss their experiences in interviews, many of the women spoke of finding new meaning in life and of discovering the unexpected benefits of their trauma in terms of their interpersonal relationships, spiritual or religious values, and self-awareness. Additionally, Anderson et al. (2012) noted that the majority of their participants perceived that access to formal, informal, and spiritual social support had been instrumental to their recovery and growth.

A recent qualitative study (Brosi et al., 2020) explored the experiences of 32 women who currently were or recently had been using the services of domestic violence shelters. Social support was one of the four themes to emerge from analyzing interview data. Participants mentioned receiving support from a variety of sources, including friends, family, and religious organizations. The women described numerous ways in which social support had been beneficial. Some women thought, for example, that supportive others had guided them to change their perspective of themselves or to view their lives in a more positive way. For those women, social support seemed to facilitate growth after their abusive experiences.

Valentine et al. (2013) studied the PTG experiences of 28 men who had received HIV diagnoses and had been in physically, emotionally, and/or sexually abusive same-sex relationships. Participants were recruited from an outpatient care clinic, and they were included in that qualitative study if their medical records noted a previous

disclosure of being abused by a partner prior to their HIV diagnosis. In their interviews, the men assigned positive meaning to their IPV experiences in various ways. Common themes, for example, included being better able to relate to others, having a greater sense of personal strength, and discovering new hobbies or interests as a result of their abuse. Several of the men noted that support from healthcare providers, friends, or pets had helped them to redefine their sense of self-worth after the abuse. It is important to note, however, that though some participants mentioned the importance of support, others discussed a lack of adequate social support from their peers.

Quantitative studies (e.g., Cobb et al., 2006; Žukauskienė et al., 2019) have corroborated the association between social support and levels of posttraumatic growth. Žukauskienė et al. (2019), for instance, researched identity processes (e.g., ruminative exploration and commitment making) and PTG in a sample of 217 Lithuanian women who had been physically, sexually, psychologically, and/or economically abused by a romantic partner. In that study, social support was positively correlated with PTG levels and manifestations of the five identity processes studied, with higher levels of support from others being associated with higher levels of growth and identity development. Social support, along with other factors such as time since the abuse and abuse severity, positively predicted PTG for that sample. The authors (Žukauskienė et al., 2019) interpreted those results to indicate that supportive others may facilitate posttraumatic growth, as well as identity exploration and development, in victims of intimate partner violence.

Cobb et al. (2006) also explored correlates and predictors of PTG in their sample of 60 female survivors of physical and nonphysical partner abuse. Women who had left

the abusive relationship indicated higher levels of PTG than did women who were still romantically involved with the abusive partner. Moreover, women who knew someone who had experienced growth after being victimized by a partner also had higher PTG scores compared to women who had no such role model. The results of that research (Cobb et al., 2006) indicated that posttraumatic growth may be influenced by factors such as whether or not the victim is still in the abusive relationship and whether or not the victim has access to a role model of personal growth after IPV in their social support network.

It is important to note that the majority of previous studies (e.g., Cobb et al., 2006) have investigated the relationship between social support and posttraumatic growth after IPV in entirely female samples. Related research (e.g., Bhat & Rangaiah, 2015; Sattler et al., 2018), though, suggests that social support may play a role in PTG for male trauma victims, as well. Support from others, for example, has been related to PTG in men who have been exposed to the armed conflict in Kashmir (Bhat & Rangaiah, 2015) and in men and women who have experienced natural disasters in Indonesia (Sattler et al., 2018). In other related research, such as a study by Pierce et al. (2018), higher levels of perceived social support have been linked to higher levels of life satisfaction for men who had been emotionally abused by their caregivers in childhood.

Overall, the available literature suggests that social support may be related to levels of posttraumatic growth for victims of IPV (e.g., Brosi et al., 2020). Specifically, higher levels of perceived social support seem to be associated with higher levels of PTG (e.g., Žukauskienė et al., 2019). The existing research (e.g., Cobb et al., 2006) on social support and PTG following partner violence has focused primarily on female victims.

Related research (e.g., Pierce et al., 2018), however, suggests that social support may be related to levels of growth for male victims of interpersonal trauma. Considering the available research, it is possible that support from others could be associated with how men who have been abused by their romantic partners experience posttraumatic growth, as well.

This review of the existing research reiterates the need for studies that include male victims, especially to gain insight into potential gender differences in the relationship between social support and posttraumatic growth for IPV survivors. The existing literature does not address the potential gender differences in social support as a moderator variable between intimate partner violence and posttraumatic growth. Related research (e.g., Smith et al., 2013; Sperry & Widom, 2015), however, suggests that such gender differences may exist. Sperry and Widom (2013, 2015), for example, found that social support was more important for women than for men in their study of adults who had been abused in childhood. In particular, higher levels of social support were related to statistically significantly lower levels of symptoms of anxiety and depression for women, but higher levels of social support had a much smaller impact for men (Sperry & Widom, 2015). Furthermore, Smith et al. (2013) found gender differences in the type of social support that moderated the relationship between exposure to military stressors and posttraumatic stress symptoms. In that study (Smith et al., 2013), military social support was associated with lower levels of symptoms for men, but civilian social support was associated with lower levels of symptoms for women. Considering the findings of related research, it may be beneficial to explore potential gender differences in social support as a moderator of the relationship between IPV victimization and PTG.

Summary and Purpose

Intimate partner violence can include physical, sexual, and psychological abuse as well as partner harassment (CDC, 2019; Smith et al., 2018). To summarize the existing literature, research conducted in the U.S. (e.g., Wolford-Clevenger et al., 2016) has suggested that intimate partner violence is prevalent among university students. Dardis et al. (2020), for example, found that 45% of women and 60% of men had been victims of psychological IPV, and 11% of women and 26% of men had been victims of physical IPV within the past year. A number of negative correlates of IPV victimization have been identified, including PTSD and symptoms of anxiety and depression (e.g., Cody et al., 2017). There is research (e.g., Samios et al., 2020), however, that indicates that it is possible for IPV survivors to experience positive changes, as well. These positive changes, often referred to as posttraumatic growth (PTG), can occur in five domains according to Tedeschi and Calhoun (1996): relating to others, new possibilities, personal strength, spiritual change, and appreciation of life.

Posttraumatic growth has been researched in survivors of numerous types of trauma, such as bereavement (e.g., Stein et al., 2018), cancer (e.g., Romeo et al., 2020), natural disasters (e.g., Manove et al., 2019), and intimate partner violence (e.g., Valdez & Lilly, 2015). Overall, an estimated 52% of people who report some type of traumatic experience indicate moderate-to-high levels of PTG (Wu et al., 2019). PTG after an adverse event may be impacted by the nature of the traumatic experience (Lowe et al., 2020), the gender of the victim (Vishnevsky et al., 2010), and the victim's perceived social support (Žukauskienė et al., 2019). These factors must be considered when studying posttraumatic growth.

In terms of PTG for survivors of intimate partner violence, research (e.g., Samios et al., 2020; Valdez & Lilly, 2015) has found that people who have been abused by a romantic partner often indicate experiencing moderate levels of personal growth. Though findings are mixed, some research (e.g., Žukauskienė et al., 2019) suggests that levels of PTG for IPV survivors may be related to social support, with higher levels of social support being associated with higher levels of growth. It is important to note, however, that the majority of the available literature focuses on clinical samples of female victims of IPV (e.g., Valdez & Lilly, 2015). Considering that IPV has been found to be prevalent in university samples (e.g., Dardis et al., 2020), more research is needed to investigate posttraumatic growth experiences for college students who have been in abusive romantic relationships. Further, given that some studies (e.g., Rutter et al., 2012) have found that men and women indicate similar rates of IPV victimization, it is important that future research on PTG in survivors of partner violence include men in their samples.

Moreover, many studies of partner abuse (e.g., Samios et al., 2020; Valdez & Lilly, 2015) do not include harassment and/or stalking in their measurement of IPV. Future studies, therefore, also may benefit from utilizing measures that incorporate items relating to intimate partner harassment in order to gain a broader sense of the types of abuse that are experienced by IPV victims.

The purpose of the current study was to investigate the relationship between intimate partner violence victimization and posttraumatic growth. Further, the moderating role of perceived social support was examined in a mixed sample of male and female undergraduate students. This made it possible to assess for a potential gender difference in perceived social support as a moderator for the relationship between PTG

scores and scores on a measure of intimate partner violence in a university sample. The proposed study, therefore, was designed to expand upon previous research and address areas that have been largely overlooked in the existing literature. There were several hypotheses that were relevant to this study.

H1: It was predicted that there would be statistically significant gender differences for mean scores on the Composite Abuse Scale (CAS, Hegarty et al., 1999, 2005), the Multidimensional Scale of Perceived Social Support (MSPSS, Zimet et al., 1988), and the Posttraumatic Growth Inventory (PTGI, Tedeschi & Calhoun, 1996). Specifically, Welch *t*-tests for independent samples were expected to show that the mean scores for each of these measures were statistically significantly higher for women than for men.

H2: It was hypothesized that total scores on the CAS (Hegarty et al., 1999, 2005) would be positively and statistically significantly correlated with total scores on the PTGI (Tedeschi & Calhoun, 1996) when correlational analyses were conducted for men and women individually as well as for the overall sample. It was expected that higher scores on the CAS would be related to higher scores on the PTGI for both genders and for the overall sample.

H3: It also was predicted that total scores on the Multidimensional Scale of Perceived Social Support (MSPSS, Zimet et al., 1988) would be positively and statistically significantly correlated with total scores on the PTGI (Tedeschi & Calhoun, 1996) when analyses were conducted for men and women separately and for the overall sample. Further, MSPSS total scores also were expected to be negatively and statistically

significantly correlated with total scores on the CAS (Hegarty et al., 1999, 2005) for the overall sample as well as for both genders.

H4: It was further hypothesized that both perceived social support and participant gender would be statistically significant moderators for the relationship between intimate partner victimization and posttraumatic growth. For this multiple regression model, CAS total scores, gender, overall MSPSS scores, the interaction of participant gender with CAS scores, the interaction of MSPSS scores with CAS scores, and the interaction of gender with MSPSS scores were considered to be the potential predictors of overall PTGI scores. In light of related research (e.g., Sperry & Widom, 2015), it was expected that the interaction between MSPSS scores and gender would be statistically significant, with social support expected to be a stronger moderator for PTGI scores for women than for men.

Additionally, exploratory correlational analyses were conducted for this study. Specifically, intercorrelations among the subscale scores on the MSPSS (Zimet et al., 1988, Family, Friends, and Significant Others), the CAS (Hegarty et al., 1999, Physical Abuse, Emotional Abuse, and Harassment), and the PTGI (Tedeschi & Calhoun, 1996, Relating to Others, New Possibilities, Personal Strength, Spiritual Change, and Appreciation of Life) were examined. There were no a priori hypotheses regarding the relationships among the subscales of these measures.

CHAPTER II: METHOD

Participants

After obtaining IRB approval (See Appendices A and B), participants were recruited from the Psychology Research Pool at Middle Tennessee State University between the months of February and April of 2021. Students had to be at least 18 years old to participate in the current study, and they earned 1 research credit in their psychology class for their participation. The original sample for this online study included 158 participants. Participants who were missing a substantial amount of data (2 participants) or responded “Other/I prefer not to respond” with regard to their gender (6 participants) were excluded from the final analyses. Of the remaining 150 participants (104 women and 46 men), those whose responses on the Composite Abuse Scale (Hegarty et al., 2005) indicated no history of adult intimate relationships (2 female participants) or no history of IPV (62 participants: 43 women and 19 men) were not included in analyses for the current study. The final sample size for the current study, therefore, was 86 (27 men and 59 women). As shown in Table 1, the final sample predominantly identified themselves as being White/Caucasian (61.63%) and between 18 and 21 years of age (83.72%).

Measures

Demographics. Information about gender (e.g., *Male; Female; Other/I prefer not to respond*), ethnicity (*White/Caucasian; Black/African American; Other; I prefer not to respond*), and age (e.g., *18-21; 22-25; 26 or older; I prefer not to respond*) were gathered

Table 1

Demographic Frequencies of Final Sample

Variable	%	n
Gender		
Men	31.40	27
Women	68.60	59
Ethnicity		
White/ Caucasian	61.63	53
Black/ African American	22.09	19
Other	15.12	13
Prefer not to respond	1.16	1
Age (in years)		
18-21	83.72	72
22-25	9.30	8
26+	6.98	6

Note. N = 86.

from participants. Refer to Appendix C. Response options for participant demographic information had been carefully worded in an attempt to make those who participated in the study less inadvertently identifiable. Further, an option not to disclose demographic information was offered for each of these items (i.e., *I prefer not to respond*).

The Composite Abuse Scale. The Composite Abuse Scale (CAS, Hegarty et al., 1999, 2005) is a 30-item measure that assesses physical, psychological, and sexual IPV along with partner harassment. Participants indicate how often they experienced each abusive behavior within the past 12 months, or in their most recent relationship if they have not been in a romantic relationship in the past year. Responses are given on a Likert-type scale ranging from 0 (*never*) to 5 (*daily*). This measure has four subscales: Severe Combined Abuse (e.g., “Used a knife or gun or other weapon”), Physical Abuse (e.g., “Pushed, grabbed or shoved me”), Emotional Abuse (e.g., “Told me that I wasn’t good enough”), and Harassment (e.g., “Followed me”). It also provides a total score, with possible scores ranging from 0 to 150. The total score was used for hypothesis testing for the current study.

The CAS was normed and validated with data collected from Australian women (Hegarty et al., 1999, 2005). Internal consistencies of the subscales of the original measure ranged from .91 to .95 (Hegarty et al., 1999). In the preliminary validation of the measure (Hegarty et al., 1999), scores on the CAS were found to be positively correlated with scores on the Conflict Tactics Scale (Straus, 1979, as cited by Hegarty et al., 1999). In another study of the reliability and validity of the CAS, Hegarty et al. (2005) reduced the length of the measure to the current 30-item form. Subscale internal consistencies for the 30-item CAS ranged from .87 to .94, with the internal consistency

for the overall measure being .85 (Hegarty et al., 2005). Scores on the updated 30-item CAS also were found to be positively correlated with self-ratings of abuse, which demonstrated the measure's validity (Hegarty et al., 2005).

The CAS has been used for several studies within the U.S. (e.g., Beck, 2013; Camarillo-Daley, 2014). It also has been utilized with U.S. college samples (e.g., Neal et al., 2015; Wolford-Clevenger et al., 2016). The authors of the CAS note in the manual (Hegarty & Valpied, 2013) that the measure has limited validity for male IPV survivors. The CAS, however, has performed as expected in U.S. research that has involved male participants. For example, in a study for which analyses were conducted separately based on participant gender, CAS scores were found to be appropriately correlated with suicidal ideation for both men and women (Wolford-Clevenger et al., 2016). Further, in a study for which analyses were conducted with data from men and women combined, CAS scores were found to be highly correlated with scores on another measure of IPV (Turell et al., 2018). Moreover, the reported internal consistencies of the overall CAS in studies that included men generally have been good (e.g., .97, Turell et al., 2018). Results from several studies within the U.S. (e.g., Turell et al., 2018; Wolford-Clevenger et al., 2016), therefore, provide evidence that the Composite Abuse Scale may be valid for use with samples that include men.

It is important to note that the recommended cutoff score of 3 (Hegarty & Valpied, 2013) was not used for the current study. In order to obtain an adequate final sample, a total cut-off score of 1 was used in order to report the prevalence of IPV in the current sample and to determine participant inclusion in the current study; this would include any participant indicating experiencing any form of victimization on at least one

occasion. Therefore, participants who indicated having experienced no IPV, as denoted by a score of 0 on the CAS, were excluded from the analyses conducted for the current study. Other researchers (e.g., Wolford-Clevenger et al., 2016) also have utilized this less stringent cutoff score for their studies in order to report the prevalence of IPV in their samples. Moreover, in consideration of the likelihood that some participants may have never been in an adult intimate relationship, as defined by the CAS, data collected from those who indicated not having been in a relationship since they were 16 years old were not included in analyses.

Overall scores on the CAS were used for hypothesis testing. Subscale scores (Physical Abuse, Emotional Abuse, and Harassment) were included in exploratory correlational analyses. For the current study, Cronbach's coefficient alpha for the total scale was .93. Internal consistencies for the physical abuse, emotional abuse, and harassment subscales were .89, .91, and .61, respectively.

Descriptive relationship items. Refer to Appendix D for the descriptive relationship items. In order to gain a better understanding of participants' relationships, three author-constructed items were included in the questionnaire. These items inquired about the number of relationships that participants described while responding to the CAS and whether or not participants were still in one of the relationships for which they had responded.

The Posttraumatic Growth Inventory. The Posttraumatic Growth Inventory (PTGI, Tedeschi & Calhoun, 1996) was used to assess PTG. This measure is a 21-item self-report scale. Participants rated perceived positive changes since their abusive relationship on a Likert-type scale with response options ranging from 0 (*did not*

experience) to 5 (experienced to a very great degree). This measure has a subscale for each of the five factors of PTG: Relating to Others (e.g., “I have more compassion for others”), New Possibilities (e.g., “I developed new interests”), Personal Strength (e.g., “I have a greater feeling of self-reliance”), Spiritual Change (e.g., “I have a stronger religious faith”), and Appreciation of Life (e.g., “I can better appreciate each day”). The PTGI, therefore, yields subscale scores and a total score. Total scores on the PTGI can range from 0 to 105, with higher scores indicating higher levels of posttraumatic growth.

In the normative sample of undergraduate students (Tedeschi & Calhoun, 1996), the PTGI had an overall internal consistency of $\alpha = .90$. Other studies that have utilized the PTGI with university samples (e.g., Kramer et al., 2020; Schaefer et al., 2018) have reported adequate internal consistencies, as well. The PTGI demonstrated adequate test-retest reliability at 2 months after the preliminary testing ($r = .71$, Tedeschi & Calhoun, 1996). In preliminary validation (Tedeschi & Calhoun, 1996), this inventory showed adequate ability to measure positive changes that are unique to traumatic experiences, with individuals who had reported severe traumatic experiences indicating statistically significantly higher levels of PTG than those who had not experienced severe trauma. The PTGI also has been validated using qualitative reports of positive impacts of trauma (Shakespeare-Finch et al., 2013) and behavioral changes following traumatic experiences (Shakespeare-Finch & Barrington, 2012). The internal consistency of the full scale PTGI for the current study was .92; Cronbach’s coefficient alphas for the subscales were .89 for the Relating to Others subscale, .78 for New Possibilities, .73 for Personal Strength, .76 for Spiritual Change, and .52 for Appreciation of Life.

The Multidimensional Scale of Perceived Social Support. The Multidimensional Scale of Perceived Social Support (MSPSS, Zimet et al., 1988) assesses perceived social support on a Likert-type scale ranging from 1 (*very strongly disagree*) to 7 (*very strongly agree*). This measure is comprised of three subscales that allow participants to rate support from friends (e.g., “I can talk about my problems with my friends”), family (e.g., “My family really tries to help me”), and significant others (e.g., “I have a special person who is a real source of comfort to me”). Possible subscale scores range from 4 to 28, and full scale MSPSS scores can range from 12 to 84. Higher scores indicate higher levels of perceived social support.

The MSPSS originally was normed and validated in a sample of male and female university students, and the internal reliability for the total scale was $\alpha = .88$ (Zimet et al., 1988). Studies with U.S. undergraduate students (e.g., Lamis et al., 2016; Smith et al., 2017) have provided further evidence of this measure’s reliability. The MSPSS also demonstrated adequate test-retest reliability at 2 to 3 months after the initial testing (.85, Zimet et al., 1988). In terms of construct validity, the authors of the measure (Zimet et al., 1988) found scores on the MSPSS to be negatively correlated with symptoms of depression and anxiety, with higher levels of perceived social support being associated with lower levels of depression and anxiety symptoms. For the current study, the Cronbach’s coefficient alpha for the full scale MSPSS was .88. Internal consistencies for the Friends, Family, and Significant Other subscales were .94, .91, and .96, respectively.

Procedure

After IRB approval was granted, informed consent was collected from participants before they began the survey (see Appendix E). Participants were given the

questionnaires in an online format. Demographic information (i.e., gender, age, ethnicity) was collected first, followed by the MSPSS (Zimet et al., 1988), the CAS (Hegarty et al., 2005), the descriptive relationship items, and the PTGI (Tedeschi & Calhoun, 1996). Participants were debriefed after completing the study, and they were given contact information for the principal investigator and the faculty advisor. Participants also were presented with intimate partner violence resources in the debriefing form (see Appendix F). Data from participants who indicated no history of adult intimate relationships, as defined by the Composite Abuse scale as a relationship since the age of 16 years that lasted at least 1 month (Hegarty et al., 2005), were excluded from analyses. Further, data from participants who indicated having experienced no IPV, represented by a CAS (Hegarty et al., 2005) total score of 0, also were not included in analyses for the current study.

CHAPTER III: RESULTS

Descriptive Statistics

Eighty-six of the original 158 participants qualified for inclusion in the current study. For this study, an almost equal percentage of men (59%) and women (57%) indicated at least one abusive experience, $\chi^2(1) = .052, p = .8225$, with the IPV prevalence for the overall sample being roughly 57%. Further, the majority of participants (84%) responded to the CAS with a single relationship in mind, but 14 participants (16%) responded for multiple relationships, all of which had occurred in the past year. Moreover, of these 86 participants who had indicated experiencing partner abuse, 40 participants (47%) indicated that they were still in at least one of the romantic relationships for which they had responded. Just below 28% of participants indicated that they had been afraid of a romantic partner at some point in their lives. Regarding growth after IPV, on average, the current sample indicated moderate-to-high levels of PTG.

Hypotheses Testing

Hypothesis one. Hypothesis one explored gender differences in the study variables. See Table 2 for means and the results of the Welch's *t*-tests. In terms of the level of victimization, CAS total scores were statistically significantly different by gender. Specifically, women indicated higher overall victimization than did men. Total scores on the MSPSS were similar for men and women, as were overall PTGI scores. Overall, hypothesis one regarding gender differences in mean scores on measures of partner abuse, social support, and posttraumatic growth was partially supported by the data.

Table 2

Comparison of Men and Women on the Study Variables

Variable	Overall (N = 86)		Men (n = 27)		Women (n = 59)		Welch's <i>t</i>	<i>df</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
CAS									
Total	13.80	17.66	8.07	6.59	16.42	20.38	-2.84**	78.39	-.55
Phy	2.42	4.62	1.22	2.17	2.97	5.31	-2.16*	83.31	-.44
Emo	8.48	10.32	5.41	4.86	9.88	11.80	-2.49*	83.41	-.50
Har	2.06	3.14	1.37	1.78	2.37	3.57	-1.74	83.29	-.12
MSPSS									
Total	62.40	13.81	66.00	11.38	60.75	14.58	1.81	63.63	.40
Fr	21.73	5.76	22.22	5.58	21.51	5.88	0.54	53.05	.12
Fam	19.52	6.38	21.67	4.63	18.54	6.85	2.48*	71.80	.54
SO	21.14	6.99	22.11	5.47	20.69	7.58	0.98	68.15	.21
PTGI									
Total	87.55	21.73	88.81	20.31	86.97	22.49	0.71	55.53	.09
Rel	26.97	9.36	28.11	9.67	26.44	9.25	0.75	48.52	.18
NP	21.99	5.67	22.26	5.32	21.86	5.86	0.31	55.29	.07
PS	17.85	4.54	17.37	4.90	18.07	4.40	-0.63	45.90	-.15
SC	7.06	3.55	7.19	3.22	7.00	3.71	0.24	57.66	.05
AoL	13.69	3.24	13.89	2.89	13.59	3.40	0.42	58.93	.10

Note. CAS = Composite Abuse Scale; Phy = Physical Abuse subscale of the CAS; Emo = Emotional Abuse subscale of the CAS; Har = Harassment subscale of the CAS; MSPSS = Multidimensional Scale of Perceived Social Support; Fr = Friends subscale of the MSPSS; Fam = Family subscale of the MSPSS; SO = Significant Other subscale of the MSPSS; PTGI = Posttraumatic Growth Inventory; Rel = Relating to Others subscale of the PTGI; NP = New Possibilities subscale of the PTGI; PS = Personal Strength subscale of the PTGI; SC = Spiritual Change subscale of the PTGI; AoL = Appreciation of Life subscale of the PTGI.

p* < .05. *p* < .01.

Hypothesis two. Table 3 provides information about variable correlations for the overall sample, and Table 4 provides information about variable correlations for men and women separately. Correlational analyses for hypothesis two, which relates to the correlation between CAS total scores (Hegarty et al., 1999, 2005) and PTGI total scores (Tedeschi & Calhoun, 1996), were conducted for men and women independently as well as for the overall, combined sample. For the overall sample and for both genders analyzed separately, CAS total scores were not significantly correlated with PTGI total scores. Therefore, hypothesis two was not supported by the data.

Hypothesis three. See Tables 3 and 4 for correlation details. Correlational analyses for hypothesis three, which involves the correlations of MSPSS total scores with CAS total scores and PTGI total scores, also were conducted for both genders independently and for the overall, combined sample. Hypothesis three was partially supported because social support was found to be correlated with posttraumatic growth ($r = .29, p = .006$), but not partner abuse victimization ($r = -.06, p = .585$) for the overall sample. Thus, hypothesis three was partially supported because higher overall scores on the MSPSS were statistically significantly related to higher overall scores on the PTGI. It also is important to note that, when analyzed separately by gender, scores on the MSPSS were significantly correlated with scores on the PTGI for women but not for men.

Hypothesis four. In view of the lack of a significant relationship between total scores on the CAS and total scores on the PTGI, a regression model assessing for moderators was unnecessary.

Table 3

Correlations Among MSPSS, CAS, and PTGI Total and Subscale Scores for the Overall Sample

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
MSPSS														
1. Total	--													
2. Fr	.74**	--												
3. Fam	.76**	.48**	--											
4. SO	.68**	.19	.19	--										
CAS														
5. Total	-.06	-.07	-.09	.02	--									
6. Phy	.02	-.07	-.03	.12	.80**	--								
7. Emo	-.08	-.04	-.06	-.08	.96**	.65**	--							
8. Har	.02	-.09	-.08	.18	.79**	.60**	.67**	--						
PTGI														
9. Total	.29**	.15	.20	.27*	.14	.08	.13	.14	--					
10. Rel	.37**	.23*	.18	.37**	.01	-.02	.00	.01	.89**	--				
11. NP	.24*	.13	.16	.22*	.18	.08	.19	.22*	.88**	.67**	--			
12. PS	.11	.05	.09	.09	.17	.15	.17	.10	.79**	.65**	.61**	--		
13. SC	.14	.03	.25*	.02	.10	.09	.08	.16	.64**	.43**	.53**	.36**	--	
14. AoL	.19	.05	.14	.20	.23*	.16	.23*	.21	.79**	.53**	.78**	.55**	.55**	--

Note. N = 86. MSPSS = Multidimensional Scale of Perceived Social Support; Fr = Friends subscale of the MSPSS; Fam = Family subscale of the MSPSS; SO = Significant Other subscale of the MSPSS; CAS = Composite Abuse Scale; Phy = Physical Abuse subscale of the CAS; Emo = Emotional Abuse subscale of the CAS; Har = Harassment subscale of the CAS; PTGI = Posttraumatic Growth Inventory; Rel = Relating to Others subscale of the PTGI; NP = New Possibilities subscale of the PTGI; PS = Personal Strength subscale of the PTGI; SC = Spiritual Change subscale of the PTGI; AoL = Appreciation of Life subscale of the PTGI.

* $p < .05$. ** $p < .01$.

Table 4

Correlations Among MSPSS, CAS, and PTGI Total and Subscale Scores for Men (n = 27) and Women (n = 59)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
MSPSS														
1. Total	--	.79**	.72**	.67**	-.10	.13	-.24	.11	.20	.24	.17	-.04	.28	.06
2. Fr	.73**	--	.46*	.23	.04	.11	-.05	.14	.13	.19	.12	-.07	.24	-.07
3. Fam	.76**	.49**	--	.19	.01	.07	-.06	.18	.18	.13	.13	.03	.35	.13
4. SO	.68**	.18	.18	--	-.27	.09	-.40*	-.07	.13	.19	.12	-.04	.04	.08
CAS														
5. Total	-.01	-.07	-.05	.08	--	.64**	.91**	.44*	-.09	-.26	-.03	.01	.16	.11
6. Phy	.04	-.09	.00	.15	.81**	--	.38*	.11	-.03	-.10	.02	.02	.00	.07
7. Emo	-.02	-.02	-.01	-.02	.96**	.65**	--	.18	-.17	-.32	-.15	.00	.07	.03
8. Har	.03	-.13	-.08	.24	.82**	.64**	.70**	--	.18	.02	.28	.01	.38	.28
PTGI														
9. Total	.32*	.16	.20	.31*	.19	.11	.20	.15	--	.90**	.81**	.81**	.55**	.55**
10. Rel	.41**	.24	.18	.43**	.07	.01	.08	.03	.89**	--	.59**	.77**	.32	.20
11. NP	.26*	.13	.17	.25	.24	.10	.27*	.23	.90**	.70**	--	.43*	.47*	.64**
12. PS	.19	.12	.13	.15	.20	.17	.21	.12	.79**	.61**	.70**	--	.27	.34
13. SC	.09	-.05	.23	.01	.11	.11	.10	.13	.67**	.47**	.55**	.40**	--	.38*
14. AoL	.22	.09	.13	.23	.27	.19	.28*	.21	.87**	.67**	.83**	.65**	.60**	--

Note. N = 86. Correlations for men are provided above the diagonal; correlations for women are provided below the diagonal.

MSPSS = Multidimensional Scale of Perceived Social Support; Fr = Friends subscale of the MSPSS; Fam = Family subscale of the MSPSS; SO = Significant Other subscale of the MSPSS; CAS = Composite Abuse Scale; Phy = Physical Abuse subscale of the CAS; Emo = Emotional Abuse subscale of the CAS; Har = Harassment subscale of the CAS; PTGI = Posttraumatic Growth Inventory; Rel = Relating to Others subscale of the PTGI; NP = New Possibilities subscale of the PTGI; PS = Personal Strength subscale of the PTGI; SC = Spiritual Change subscale of the PTGI; AoL = Appreciation of Life subscale of the PTGI.

*p < .05. **p < .01.

Exploratory Analyses

Exploratory correlational analyses were conducted to investigate intercorrelations among the study variables for the overall sample and for men and women independently. Specifically, correlations among the subscale scores on the MSPSS (Zimet et al., 1988, Family, Friends, and Significant Others), the CAS (Hegarty et al., 1999, 2005, Physical Abuse, Emotional Abuse, and Harassment), and the PTGI (Tedeschi & Calhoun, 1996, Relating to Others, New Possibilities, Personal Strength, Spiritual Change, and Appreciation of Life) were examined. Tables 3 and 4 contain information about all intercorrelations among subscales for this study. Several noteworthy statistically significant subscale correlations emerged.

For the overall sample, there were several significant correlations between various forms of social support and various domains of posttraumatic growth. For example, there was a positive relationship between personal growth in the domain of relating to others and social support from both friends and significant others. This suggests that social support from friends and significant others, but not from family members, may be related to experiencing improvements in an IPV survivor's ability to relate to others. Further, posttraumatic growth in the area of new possibilities was positively correlated with social support from significant others. Therefore, a greater level of support from significant others seems to be related to a higher likelihood of partner abuse survivors seeing new possibilities in their lives after the abuse. Moreover, changes in spirituality after IPV were positively related to familial social support, with higher levels of support from

family members being associated with higher scores on the PTGI Spiritual Change subscale.

Significant correlations also emerged between specific types of partner abuse and different areas of posttraumatic growth for the overall sample. Specifically, emotional abuse was positively correlated with the PTGI subscale of Appreciation of Life. Further, partner harassment was positively correlated with personal growth in the domain of new possibilities. These correlations suggest that different types of partner abuse victimization may be associated with some areas of posttraumatic growth but not others.

When analyzed separately, several statistically significant correlations became apparent for men and women. For men, emotional abuse was negatively correlated with social support from significant others, which suggests that greater levels of emotional abuse victimization may be related to lower levels of perceived social support from significant others. For women, emotional abuse subscale scores were positively correlated with both the new possibilities and appreciation of life domains of posttraumatic growth. This indicates that emotional abuse victimization may be more strongly associated with the ability to see how their lives can change and the ability to appreciate life than with other areas of personal growth for women. Further, for women, the PTGI Relating to Others subscale was positively correlated with social support from significant others, suggesting that greater levels of social support seem to be associated with greater improvements in the ability to relate to others.

CHAPTER IV: DISCUSSION

Research (e.g., Wolford-Clevenger et al., 2016) suggests that intimate partner violence is prevalent among university students in the United States. Wolford-Clevenger et al. (2016), for example, found that 53% of their U.S. university sample indicated having experienced some form of physical abuse, emotional abuse, or harassment in a relationship. A number of negative correlates of IPV victimization, such as symptoms of anxiety and depression, have been recognized in the existing literature (e.g., Cody et al., 2017). There is research (e.g., Samios et al., 2020; Valdez & Lilly, 2015), however, that suggests that survivors of partner violence also may experience posttraumatic growth after the abuse.

The current study was designed to investigate the moderating effects of participant gender and perceived social support on the relationship between intimate partner violence victimization and posttraumatic growth in a sample of 86 undergraduate students. The prevalence of IPV found in this sample (57%) was similar to those reported in other studies (e.g., Wolford-Clevenger et al., 2016). This further demonstrates that partner abuse is a significant concern for university students within the United States. Further, the mean PTGI score for this sample reflects a moderate-to-high degree of posttraumatic growth, which is consistent with levels of growth found in other samples of IPV survivors (e.g., Samios et al., 2020). Contrary to what was hypothesized, however, overall abuse scores were not statistically significantly and positively correlated with overall posttraumatic growth scores; consequently, no moderation analyses were necessary.

There may be several explanations for this deviation from the existing literature (e.g., Žukauskienė et al., 2019). For example, participants for this study were undergraduate university students, and many other studies (e.g., Bakaitytė et al., 2020) have utilized clinical samples. Further, the current study, unlike many others (e.g., Valdez & Lilly, 2015, Žukauskienė et al., 2019) included men. Vishnevsky et al. (2010) found that women generally indicate higher levels of posttraumatic growth than men after traumatic experiences and, as such, the use of a college sample that included male survivors of IPV may have impacted the relationships among variables for the overall sample.

Another noteworthy point of divergence is that the current study included partner harassment in the definition and operationalization of partner abuse. Many other studies have focused primarily on physical (e.g., Valdez & Lilly, 2015) and psychological (e.g., Samios et al., 2020) abuse. Lowe et al. (2020) found that different forms of trauma may lead to different posttraumatic growth experiences. As such, the use of a broader definition of partner abuse and the inclusion of partner harassment, a form of IPV that often is not included in research, may explain why the findings of the current study are inconsistent with some of the existing literature.

Further, in order to ensure that an adequate sample was obtained, a more inclusive cutoff score of 1 on the CAS was used to determine inclusion in this study. The authors of the CAS recommend a cutoff score of 3 (Hegarty & Valpied, 2013), and the inability to adhere to that recommendation may have impacted the findings of this research. Tedeschi and Calhoun (1996) found that PTGI scores were significantly higher for people

who had experienced severe trauma than for those who had not. Roughly 20% of participants included in the current study had a CAS score below the recommended cutoff of 3. It is possible, therefore, that including individuals who had indicated less severe and/or less frequent abusive experiences also could have affected the relationships among the study variables. Specifically, PTGI scores may be more strongly correlated with CAS scores in samples that only include participants who indicate experiencing more severe and/or more frequent abuse.

Although the hypotheses were not supported by the data, an interesting pattern of correlations did emerge. For example, various forms of social support were associated with a variety of domains of posttraumatic growth for women. The same was not true, however, for men. This could suggest that the relationship between social support and posttraumatic growth varies based on the gender of the partner abuse survivor. Related research (Milner et al., 2016) has, for example, found social support to be more beneficial for the mental health of women than for men. The correlational differences found in this study also may be related to research (Martínez-Hernández et al., 2016) that suggests that men and women value different forms of social support in times of emotional distress. In interpreting these findings, however, it also is important to recognize that there were fewer men than women in the sample and, consequently, a statistically significant relationship was less likely to emerge for men than for women.

Several limitations are evident in the current study. First, this study utilized a sample of undergraduate students recruited from a midsized university setting. With this in mind, it is possible that the results from these participants cannot be generalized to the

general population or to samples collected in other settings. Further, the sample for this study included 59 women and 27 men. For the purpose of exploring gender differences in social support and posttraumatic growth after experiencing partner abuse, a larger sample may have been more advantageous. Moreover, gender differences were of particular interest and, as such, data collected from participants who indicated “other” on the demographic item pertaining to their gender identity were excluded from analyses. As a result, valuable information regarding the posttraumatic growth experiences of those belonging to gender minorities were not addressed in this study.

It also is important to note that the measure of partner abuse used for this research (the CAS; Hegarty et al., 1999, 2005) originally was not designed or normed for male participants. A limited body of research (e.g., Turell et al., 2018; Wolford-Clevenger et al., 2016) suggests that the CAS may be valid for use with men, but it may be the case that the measure was not appropriate for this particular sample. Perhaps, a measure of IPV with more diverse or inclusively worded items would have been more useful for this project.

Finally, in interpreting these results, it must be noted that data for this project were collected during the timeframe of the COVID-19 pandemic. The prevalence of IPV found in the current study is similar to those found in studies pre-pandemic (e.g., Wolford-Clevenger et al., 2016). It is possible, however, that the restrictions implemented to minimize exposure to the virus may have influenced the frequency and nature of interactions among partners. Moreover, access to social support from friends, family, and significant others likely was influenced by the pandemic for these

participants. As such, the relationships among the study variables may have been affected by changes due to the COVID-19 pandemic.

In spite of its limitations, the current study builds upon previous research and may encourage more diverse research projects in the future. As found in other studies (e.g., Wolford-Clevenger et al., 2016), the high prevalence of IPV found in this study suggests that partner abuse is a serious concern for university students. Those interested in exploring this topic further could expand upon this study in a number of ways. Researchers could, for example, explore differences in social support and PTG among a more inclusive range of gender identities (e.g., nonbinary), as much of the existing literature, including this study, has focused exclusively on participants who identify as men and women. Future projects also may aim to collect data from larger samples in order to explore the differential relationships among social support, posttraumatic growth, and different forms of IPV, including partner harassment.

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APPENDICES

Appendix A

IRB Approval Page

IRB
INSTITUTIONAL REVIEW BOARD
 Office of Research Compliance,
 010A Sam Ingram Building,
 2269 Middle Tennessee Blvd
 Murfreesboro, TN 37129
 FWA: 00005331/IRB Regn. 0003571



IRBN001 - EXPEDITED PROTOCOL APPROVAL NOTICE

Friday, December 18, 2020

Protocol Title	Romantic Relationships, Social Support and Personal Growth
Protocol ID	21-2085 7q
Principal Investigator	Justice M. Cundiff (Student)
Faculty Advisor	Mary Ellen Fromuth
Co-Investigators	NONE
Investigator Email(s)	jmc2fi@mtmail.mtsu.edu; maryellen.fromuth@mtsu.edu
Department	Psychology
Funding	NONE

Dear Investigator(s),

The above identified research proposal has been reviewed by the MTSU IRB through the **EXPEDITED** mechanism under 45 CFR 46.110 and 21 CFR 56.110 within the category **(7) Research on individual or group characteristics or behavior**. A summary of the IRB action is tabulated below:

IRB Action	APPROVED for ONE YEAR		
Date of Expiration	12/31/2021	Date of Approval: 12/18/20	Recent Amendment: NONE
Sample Size	THREE HUNDRED (300)		
Participant Pool	Target Population: Primary Classification: Healthy Adults (18 or older) Specific Classification: Psychology Research Pool (SONA)		
Type of Interaction	<input checked="" type="checkbox"/> Virtual/Remote/Online interaction <input type="checkbox"/> In person or physical interaction – Mandatory COVID-19 Management		
Exceptions	1. Permitted to administer online consent followed by a survey administered using Qualtrics. 2. Retention of participant details to comply with SONA policy is allowed.		
Restrictions	1. Mandatory ACTIVE Informed Consent. 2. Other than the exceptions above, identifiable data/artifacts, such as, audio/video data, photographs, handwriting samples, personal address, driving records, social security number, and etc., MUST NOT be collected. Recorded identifiable information must be deidentified as described in the protocol. 3. Mandatory Final report (refer last page). 4. The protocol details must not be included in the compensation receipt. 5. CDC guidelines and MTSU safe practice must be followed		
Approved Templates	IRB Templates: Online Informed Consent and Recruitment Script Non-MTSU Templates: NONE		
Research Inducement	Course Credit		
Comments	NONE		

Post-approval Requirements

The PI and FA must read and abide by the post-approval conditions (Refer "Quick Links" in the bottom):

- **Reporting Adverse Events:** The PI must report research-related adversities suffered by the participants, deviations from the protocol, misconduct, and etc., within 48 hours from when they were discovered.
- **Final Report:** The FA is responsible for submitting a final report to close-out this protocol before **12/31/2021** (**Refer to the Continuing Review section below**); **REMINDERS WILL NOT BE SENT**. Failure to close-out or request for a continuing review may result in penalties including cancellation of the data collected using this protocol and/or withholding student diploma.
- **Protocol Amendments:** An IRB approval must be obtained for all types of amendments, such as: addition/removal of subject population or investigating team; sample size increases; changes to the research sites (appropriate permission letter(s) may be needed); alteration to funding; and etc. The proposed amendments must be requested by the FA in an addendum request form. The proposed changes must be consistent with the approval category and they must comply with expedited review requirements.
- **Research Participant Compensation:** Compensation for research participation must be awarded as proposed in Chapter 6 of the Expedited protocol. The documentation of the monetary compensation must Appendix J and MUST NOT include protocol details when reporting to the MTSU Business Office.
- **COVID-19:** Regardless whether this study poses a threat to the participants or not, refer to the COVID-19 Management section for important information for the FA.

Continuing Review (The PI has requested early termination)

Although this protocol can be continued for up to THREE years, The PI has opted to end the study by **12/31/2021** The PI must close-out this protocol by submitting a final report before **12/31/2021** Failure to close-out may result in penalties that include cancellation of the data collected using this protocol and delays in graduation of the student PI.

Post-approval Protocol Amendments:

The current MTSU IRB policies allow the investigators to implement minor and significant amendments that would fit within this approval category. **Only TWO procedural amendments will be entertained per year** (changes like addition/removal of research personnel are not restricted by this rule).

Date	Amendment(s)	IRB Comments
NONE	NONE	NONE

Other Post-approval Actions:

The following actions are done subsequent to the approval of this protocol on request by the PI/FA or on recommendation by the IRB or by both.

Date	IRB Action(s)	IRB Comments
NONE	NONE	NONE

COVID-19 Management:

The PI must follow social distancing guidelines and other practices to avoid viral exposure to the participants and other workers when physical contact with the subjects is made during the study.

- The study must be stopped if a participant or an investigator should test positive for COVID-19 within 14 days of the research interaction. This must be reported to the IRB as an "adverse event."
- The MTSU's "Return-to-work" questionnaire found in Pipeline must be filled by the investigators on the day of the research interaction prior to physical contact.
- PPE must be worn if the participant would be within 6 feet from each other or with an investigator.
- Physical surfaces that will come in contact with the participants must be sanitized between use
- **FA's Responsibility:** The FA is given the administrative authority to make emergency changes to protect the wellbeing of the participants and student researchers during the COVID-19 pandemic. However, the FA must notify the IRB after such changes have been made. The IRB will audit the changes at a later date and the FA will be instructed to carryout remedial measures if needed.

Data Management & Storage:

All research-related records (signed consent forms, investigator training and etc.) must be retained by the PI or the faculty advisor (if the PI is a student) at the secure location mentioned in the protocol application.

Institutional Review Board, MTSU

FWA: 00005331

IRB Registration: 0003571

The data must be stored for at least three (3) years after the study is closed. Additional Tennessee State data retention requirement may apply (refer "Quick Links" for MTSU policy 129 below). The data may be destroyed in a manner that maintains confidentiality and anonymity of the research subjects.

The MTSU IRB reserves the right to modify/update the approval criteria or change/cancel the terms listed in this letter without prior notice. Be advised that IRB also reserves the right to inspect or audit your records if needed.

Sincerely,

Institutional Review Board
Middle Tennessee State University

Quick Links:

- Post-approval Responsibilities: <http://www.mtsu.edu/irb/FAQ/PostApprovalResponsibilities.php>
- Expedited Procedures: <https://mtsu.edu/irb/ExpeditedProcedures.php>
- MTSU Policy 129: Records retention & Disposal: <https://www.mtsu.edu/policies/general/129.php>

Appendix B
Revised IRB Approval Page

IRB

INSTITUTIONAL REVIEW BOARD
Office of Research Compliance,
010A Sam Ingram Building,
2269 Middle Tennessee Blvd
Murfreesboro, TN 37129
FWA: 00005331/IRB Regn. 0003571



IRBN001 - EXPEDITED PROTOCOL APPROVAL NOTICE

Friday, January 29, 2021

Protocol Title	<i>Romantic Relationships, Social Support and Personal Growth</i>
Protocol ID	21-2085 7q
Principal Investigator	Justice M. Cundiff (Student)
Faculty Advisor	Mary Ellen Fromuth
Co-Investigators	NONE
Investigator Email(s)	jmc2ft@mtmail.mtsu.edu; maryellen.fromuth@mtsu.edu
Department	Psychology
Funding	NONE

Dear Investigator(s),

The above identified research proposal has been reviewed by the MTSU IRB through the **EXPEDITED** mechanism under 45 CFR 46.110 and 21 CFR 56.110 within the category **(7) Research on individual or group characteristics or behavior**. A summary of the IRB action is tabulated below:

IRB Action	APPROVED for ONE YEAR		
Date of Expiration	12/31/2021	Date of Approval: 12/18/20	Recent Amendment: 1/29/21
Sample Size	THREE HUNDRED (300)		
Participant Pool	Target Population: Primary Classification: Healthy Adults (18 or older) Specific Classification: Psychology Research Pool (SONA)		
Type of Interaction	<input checked="" type="checkbox"/> Virtual/Remote/Online interaction <input type="checkbox"/> In person or physical interaction – Mandatory COVID-19 Management		
Exceptions	1. Permitted to administer online consent followed by a survey administered using Qualtrics. 2. Retention of participant details to comply with SONA policy is allowed.		
Restrictions	1. Mandatory ACTIVE Informed Consent. 2. Other than the exceptions above, identifiable data/artifacts, such as, audio/video data, photographs, handwriting samples, personal address, driving records, social security number, and etc., MUST NOT be collected. Recorded identifiable information must be deidentified as described in the protocol. 3. Mandatory Final report (refer last page). 4. The protocol details must not be included in the compensation receipt. 5. CDC guidelines and MTSU safe practice must be followed		
Approved Templates	IRB Templates: Online Informed Consent and Recruitment Script Non-MTSU Templates: NONE		
Research Inducement	Course Credit		
Comments	NONE		

Post-approval Requirements

The PI and FA must read and abide by the post-approval conditions (Refer "Quick Links" in the bottom):

- **Reporting Adverse Events:** The PI must report research-related adversities suffered by the participants, deviations from the protocol, misconduct, and etc., within 48 hours from when they were discovered.
- **Final Report:** The FA is responsible for submitting a final report to close-out this protocol before **12/31/2021** (Refer to the Continuing Review section below); **REMINDERS WILL NOT BE SENT.** Failure to close-out or request for a continuing review may result in penalties including cancellation of the data collected using this protocol and/or withholding student diploma.
- **Protocol Amendments:** An IRB approval must be obtained for all types of amendments, such as: addition/removal of subject population or investigating team; sample size increases; changes to the research sites (appropriate permission letter(s) may be needed); alteration to funding; and etc. The proposed amendments must be requested by the FA in an addendum request form. The proposed changes must be consistent with the approval category and they must comply with expedited review requirements
- **Research Participant Compensation:** Compensation for research participation must be awarded as proposed in Chapter 6 of the Expedited protocol. The documentation of the monetary compensation must Appendix J and MUST NOT include protocol details when reporting to the MTSU Business Office.
- **COVID-19:** Regardless whether this study poses a threat to the participants or not, refer to the COVID-19 Management section for important information for the FA.

Continuing Review (The PI has requested early termination)

Although this protocol can be continued for up to THREE years, The PI has opted to end the study by **12/31/2021** The PI must close-out this protocol by submitting a final report before **12/31/2021** Failure to close-out may result in penalties that include cancellation of the data collected using this protocol and delays in graduation of the student PI.

Post-approval Protocol Amendments:

The current MTSU IRB policies allow the investigators to implement minor and significant amendments that would fit within this approval category. **Only TWO procedural amendments will be entertained per year (changes like addition/removal of research personnel are not restricted by this rule).**

Date	Amendment(s)	IRB Comments
01/29/2021	1. The SONA recruitment script is altered. 2. The Qualtrics consent script is corrected for administrative error..	IRBA2021-211

Other Post-approval Actions:

The following actions are done subsequent to the approval of this protocol on request by the PI/FA or on recommendation by the IRB or by both.

Date	IRB Action(s)	IRB Comments
NONE	NONE	NONE

COVID-19 Management:

The PI must follow social distancing guidelines and other practices to avoid viral exposure to the participants and other workers when physical contact with the subjects is made during the study.

- The study must be stopped if a participant or an investigator should test positive for COVID-19 within 14 days of the research interaction. This must be reported to the IRB as an "adverse event."
- The MTSU's "Return-to-work" questionnaire found in Pipeline must be filled by the investigators on the day of the research interaction prior to physical contact.
- PPE must be worn if the participant would be within 6 feet from the each other or with an investigator.
- Physical surfaces that will come in contact with the participants must be sanitized between use
- **FA's Responsibility:** The FA is given the administrative authority to make emergency changes to protect the wellbeing of the participants and student researchers during the COVID-19 pandemic. However, the FA must notify the IRB after such changes have been made. The IRB will audit the changes at a later date and the FA will be instructed to carryout remedial measures if needed.

Institutional Review Board, MTSU

FWA: 00005331

IRB Registration: 0003571

Data Management & Storage:

All research-related records (signed consent forms, investigator training and etc.) must be retained by the PI or the faculty advisor (if the PI is a student) at the secure location mentioned in the protocol application. The data must be stored for at least three (3) years after the study is closed. Additional Tennessee State data retention requirement may apply (refer "Quick Links" for MTSU policy 129 below). The data may be destroyed in a manner that maintains confidentiality and anonymity of the research subjects.

The MTSU IRB reserves the right to modify/update the approval criteria or change/cancel the terms listed in this letter without prior notice. Be advised that IRB also reserves the right to inspect or audit your records if needed.

Sincerely,

Institutional Review Board
Middle Tennessee State University

Quick Links:

- Post-approval Responsibilities: <http://www.mtsu.edu/irb/FAQ/PostApprovalResponsibilities.php>
- Expedited Procedures: <https://mtsu.edu/irb/ExpeditedProcedures.php>
- MTSU Policy 129: Records retention & Disposal: <https://www.mtsu.edu/policies/general/129.php>

Appendix C
Demographic Items
Demographics

Please answer the following questions about your demographic information.

1. Gender:

- a. Male
- b. Female
- c. Other/ I prefer not to respond

2. Ethnicity

- a. White/Caucasian
- b. Black/African American
- c. Other
- d. I prefer not to respond

3. Age

- a. 18-21
- b. 22-25
- c. 26 and older
- d. I prefer not to respond

Appendix D

Descriptive Relationship Items

1. For the section that you just completed (Part B), how many different relationships did you describe?

- I did not respond to Part B. (Skip to the end of this survey.)
- I responded for one (1) relationship that I have had within the past 12 months. (Go to question 2.)
- I responded for my most recent relationship, but it was not within the past 12 months; it occurred since I was 16 years of age. (Go to question 2.)
- I responded for multiple (2+) relationships that I have had within the past 12 months. (Go to question 3.)

2. If you responded on Part B for one (1) relationship, how long ago did that relationship end?

- I am still in the relationship.
- The relationship ended less than 1 month ago.
- The relationship ended between 1 and 6 months ago.
- The relationship ended between 7 and 12 months ago.
- The relationship ended between 13 months and 2 years ago.
- It has been longer than 2 years since the relationship ended.

3. If you responded on Part B for multiple (2+) relationships within the past 12 months, how long ago did the most recent relationship end?

- I am still in the relationship.
- The relationship ended less than 1 month ago.
- The relationship ended between 1 and 6 months ago.
- The relationship ended between 7 and 12 months ago

Appendix E

Informed Consent

IRBF024 - INFORMED CONSENT for ONLINE STUDIES
(Use this consent template when recruiting adult participants when online data are collected)

Mandatory Consent Requirements for online use:

- a. Use the same text used in this form when requesting online consent from the participants – Provide the online consent link for IRB review
- b. The first page of the survey must display this informed consent text.
- c. Participants' consent to participate must be entertained by two distinct responses: one to consent and one to decline.
 - i. The participant age must be verified through a separate question
 - ii. Agreeing to consent and age verification must both be true before the online instrument can be administered.
 - iii. Additional questions may be asked for filtering ineligible participants

IRBF024 – Participant Informed Consent (ONLINE)
Language to be used for online surveys that qualify for “no more than minimal risk”

Use the following text as printed here in the first page of the Qualtrics survey to administer online informed consent. Alterations to this template are allowed on a case by case basis. However, making alterations would delay the review and approval process.

Information and Disclosure Section

The following information is provided to inform you about the research project in which you have been invited to participate. Please read this disclosure and feel free to ask any questions. The investigators must answer all of your questions and please save this page as a PDF for future reference.

- Your participation in this research study is voluntary.
- You are also free to withdraw from this study at any time without loss of any benefits.

For additional information on your rights as a participant in this study, please contact the Middle Tennessee State University (MTSU) Office of Compliance (Tel 615-494-8918 or send your emails to irb_information@mtsu.edu. (URL: <http://www.mtsu.edu/irb>).

1. **Purpose:** This research project is designed to help us evaluate the relationships among social support, potentially negative experiences in romantic relationships, and personal growth.
2. **Description:** If you agree to participate after reading this informed consent form, there are several parts to this project. They are:
 - o A brief demographic survey will collect information about your gender, age, and ethnicity.
 - o A questionnaire will ask about your personal experiences with social support, potentially negative interactions in romantic relationships (including potential physical, psychological, and sexual abuse), and personal growth after those relationships.
3. **IRB Approval:**
 - Primary Investigator: Justice M. Cundiff
 - PI Department & College: Psychology Department, College of Behavioral and Health Sciences
 - Faculty Advisor (if PI is a student): Dr. Mary Ellen Fromuth

Institutional Review Board

Office of Compliance

Middle Tennessee State University

- Protocol Title: Social Support, Romantic Relationships, and Personal Growth
- Protocol ID: 21-2085 7q Approval Date: 12/18/2020 Expiration Date: 12/31/2021

4. **Duration:** The whole activity should take less than 30 minutes. Participants will receive 1 research credit in their psychology course. Participants must click through each page of the online study in order to complete the study and receive research credit.
5. **Here are your rights as a participant:**
 - Your participation in this research is voluntary.
 - You may skip any item that you don't want to answer, and you may stop the experiment at any time (but see the note below)
 - If you leave an item blank by either not clicking or entering a response, you may be warned that you missed one, just in case it was an accident. But you can continue the study without entering a response if you didn't want to answer any questions.
 - Some items may require a response to accurately present the survey.
6. **Risks & Discomforts:** Responding to this study may elicit emotional responses in participants who have had negative experiences in romantic relationships. The probability and magnitude of discomfort, however, are not higher than could be expected during a routine psychological examination. A list of available resources is included at the end of the study for those who may wish to speak with a professional. MTSU will not provide compensation in the case of study related injury.
7. **Benefits:** Although there is no direct benefit to the participant, there is social and scientific value to exploring the relationships among social support, experiences in romantic relationships, and personal growth.
8. **Identifiable Information:** Though you will be asked about your personal experiences, you will NOT be asked to provide identifiable personal information, such as your name or M-number. Information related to your online participation, such as your IP address, also will not be collected.
9. **Compensation:** The participating students will receive a class credit if they meet the following qualification requirements.

Compensation Requirements:

- a) The qualifications to participate in this research are: You must be at least 18 years of age to participate. If you do not meet these qualifications, you will not be included in the research and you will not be compensated.
- b) Please do not participate in this research more than once. Multiple attempts to participate will not be compensated.
- c) To be compensated, you must click through to the final screen of the study. If you choose to stop for any reason, you will still need to click through until the end to receive compensation (just leave the items blank and click through until the end <; if items require a response to present the survey accurately, you will need to respond to those items as you progress to the end of the survey>).
- d) After completing the survey, you automatically will be directed back to the SONA System to receive credit for your participation in this study. We recommend that you take a screenshot of the debriefing page of the study, as this could be useful if you should need access to resources or further confirmation of your participation.

10. **Confidentiality.** All efforts, within reason, will be made to keep your personal information private, but total privacy cannot be promised. Your information may be shared with MTSU or the government, such as the Middle Tennessee State University Institutional Review Board, Federal

Institutional Review Board Office of Compliance Middle Tennessee State University
Government Office for Human Research Protections, if you or someone else is in danger or if we
are required to do so by law.

11. Contact Information. If you should have any questions about this research study or possibly injury, please feel free to contact Justice M. Cundiff by email (JMC2FT@mtmail.mtsu.edu) OR my faculty advisor, Dr. Mary Ellen Fromuth, at MaryEllen.Fromuth@mtsu.edu. You can also contact the MTSU Office of compliance via telephone (615 494 8918) or by email (compliance@mtsu.edu). This contact information will be presented again at the end of the experiment.

You are not required to do anything further if you decide not to enroll in this study. Just quit your browser. Please complete the response section below if you wish to learn more or you wish to part take in this study.

Participant Response Section

- No Yes I have read this informed consent document pertaining to the above identified research
No Yes The research procedures to be conducted are clear to me
No Yes I confirm I am 18 years or older
No Yes I am aware of the potential risks of the study

By clicking below, I affirm that I freely and voluntarily choose to participate in this study. I understand I can withdraw from this study at any time without facing any consequences.

NO I do not consent
Yes I consent

Appendix F

Debriefing Form

After reading this page, you must continue on to the next page to complete this survey and receive credit. You may take a screenshot of the information on this page for your records.

Reiterated Informed Consent Information

Purpose: This research project is designed to help us evaluate the relationships among social support, potentially negative experiences in romantic relationships, and personal growth.

Description: If you agree to participate after reading this informed consent form, there are several parts to this project. They are:

- A brief demographic survey will collect information about your gender, age, and ethnicity.
- A questionnaire will ask about your personal experiences with social support, potentially negative interactions in romantic relationships (including abuse), and personal growth after those relationships.

Duration: The whole activity should take less than 30 minutes. Participants will receive 1 research credit in their psychology course. Participants must click through each page of the online study in order to complete the study and receive research credit.

Here are your rights as a participant:

- Your participation in this research is voluntary.
- You may skip any item that you don't want to answer, and you may stop the experiment at any time (but see the note below)
- If you leave an item blank by either not clicking or entering a response, you may be warned that you missed one, just in case it was an accident. But you can continue the study without entering a response if you didn't want to answer any questions.
- Some items may require a response to accurately present the survey.

Risks & Discomforts: Responding to this study may elicit emotional responses for participants who have had negative experiences in romantic relationships. The probability and magnitude of discomfort, however, are not higher than could be expected during a routine psychological examination. A list of available resources is included at the end of the study for those who may wish to speak with a professional. MTSU will not provide compensation in the case of study related injury.

Benefits: Although there is no direct benefit to the participant, there is social and scientific value to exploring the relationships among social support, experiences in romantic relationships, and personal growth.

Identifiable Information: Though you will be asked about your personal experiences, you will NOT be asked to provide identifiable personal information, such as your name or M-number. Information related to your online participation, such as your IP address, also will not be collected.

Compensation: Participants will receive 1 research credit for their course.

Compensation Requirements:

- The qualifications to participate in this research are: You must be at least 18 years of age to participate . If you do not meet these qualifications, you will not be included in the research and you will not be compensated.
- Please do not participate in this research more than once. Multiple attempts to participate will not be compensated.
- To be compensated, you must click through to the final screen of the study. If you choose to stop for any reason, you will still need to click through until the end to receive compensation (just leave the items blank and click through until the end <; if items require a response to present the survey accurately, you will need to respond to those items as you progress to the end of the survey>).
- After completing the survey, you automatically will be directed back to the SONA System to receive credit for your participation in this study. We recommend that you take a screenshot of the debriefing page of the study, as this could be useful if you should need access to resources or further confirmation of your participation.

Confidentiality: All efforts, within reason, will be made to keep your personal information private, but total privacy cannot be promised. Your information may be shared with MTSU or the government, such as the Middle Tennessee State University Institutional Review Board, Federal Government Office for Human Research Protections, if you or someone else is in danger or if we are required to do so by law.

Debriefing Information

Studies (e.g., Dardis et al., 2020) suggest that dating violence is prevalent among university students. Survivors of partner abuse have a higher risk for a variety of adjustment issues, such as higher risk of developing depressive or anxiety disorders (e.g., Cody et al., 2017). Research (e.g., Samios et al., 2020) has found, however, that survivors of partner violence also may experience personal growth. According to Tedeschi and Calhoun (1996), adverse experiences can lead to posttraumatic growth in various areas of

life, such as by improving interpersonal relationships and by increasing personal strength. Some studies (e.g., Žukauskienė et al., 2019) have found that higher levels of social support are associated with higher levels of personal growth. Very little is known, though, about the relationship between social support, partner violence, and posttraumatic growth in university samples or in samples that include men. The current study investigated gender differences in the relationships among social support, partner abuse, and personal growth.

If you should have any questions about this research study, please feel free to contact Justice M. Cundiff by email (JMC2FT@mtmail.mtsu.edu) OR my faculty advisor, Dr. Mary Ellen Fromuth, at MaryEllen.Fromuth@mtsu.edu. You also can contact the MTSU Office of compliance via telephone (615 494 8918) or by email (compliance@mtsu.edu). If you or someone you know has experienced partner violence, the following resources are available if you would like to speak with a professional:

National Coalition Against Domestic Violence

Visit: <https://ncadv.org/>

Call: 1-800-799-7233

Text: LOVEIS to 1-866-331-9474

MTSU Counseling Services (located in the Keathley University Center on campus)

Visit: <https://www.mtsu.edu/countest/>

Call: (615) 898-2670

Domestic Violence & Sexual Assault Center (located in Murfreesboro, TN)

Visit: <https://dvsacenter.org/>

Call: (615) 896-7377

Emergency line: (615) 896-2012

Mobile Crisis Line for Emergencies

Call: 1-800-704-2651

Continue on to the next page to complete this survey and receive credit. You automatically will be redirected back to the SONA system to receive credit for your participation. We suggest that you take a screenshot of this debriefing page to keep for your records. This would give you access to the resources on this page and could, if need be, serve as additional proof of your participation.