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Life-style, Coping Resources, and Trauma Symptoms: Predicting Posttraumatic Growth

Michael Leeman

ACCEPTANCE

This dissertation, LIFE-STYLE, COPING RESOURCES, AND TRAUMA SYMPTOMS: PREDICTING POSTTRAUMATIC GROWTH, by MICHAEL S. LEEMAN, was prepared under the direction of the candidate's Dissertation Advisory Committee. It is accepted by the committee members in partial fulfillment of the requirements for the degree, Doctor of Philosophy, in the College of Education, Georgia State University.

The Dissertation Advisory Committee and the student's Department Chairperson, as representatives of the faculty, certify that this dissertation has met all standards of excellence and scholarship as determined by the faculty.

_____
Catherin Y. Chang, Ph.D.
Committee Chair

_____ _____
Greg Brack, Ph.D. Don Davis, Ph.D.
Committee Member Committee Member

_____
Franco Dispenza, Ph.D.
Committee Member

June 8, 2015
Date

_____
Brian Dew, Ph.D.
Chairperson, Department of Counseling and Psychological Services

_____
Paul Alberto, Ph.D.
Dean
College of Education

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Michael Sean Leeman
326 Pembroke Circle
Alpharetta, GA 30004

The director of this dissertation is:

Catherine Y. Chang, Ph.D.
Department of Counseling and Psychological Services
College of Education
Georgia State University
Atlanta, GA 30303

CURRICULUM VITAE

Michael S. Leeman

ADDRESS: 326 Pembroke Circle
Alpharetta, GA 30004

EDUCATION:

Ph.D.	2015	Georgia State University Counseling and Psychological Services
Masters Degree	2008	Brenau University Clinical Counseling Psychology
Bachelors Degree	2006	Piedmont College Psychology

PROFESSIONAL EXPERIENCE:

2014-present	Professional Counselor Focus Forward Counseling and Consulting
2012-2014	Professional Counselor Family Counseling Associates of North Georgia
2010-2012	Counselor Intern Odyssey Family Counseling

PRESENTATIONS AND PUBLICATIONS:

Leeman, M. S. (2014, August). Life-style as a predictor of posttraumatic growth. *Journal of Individual Psychology, 71*(1), 58-74.

Shelton, L., Leeman, M., O'Hara, C. (2011). Introduction to Animal Assisted Therapy in Counseling: A Paper Based on a Program Presented at the 2011 American Counseling Association Conference. VISTAS 2011: American Counseling Association.

PROFESSIONAL SOCIETIES AND ORGANIZATIONS

2009-Present	American Counseling Association
2009-Present	Association for Play Therapy
2009-Present	Licensed Professional Counseling Association
2009-Present	North American Society of Adlerian Psychology

LIFE-STYLE, COPING RESOURCES, AND TRAUMA SYMPTOMS: PREDICTING POSTTRAUMATIC GROWTH

by

MICHAEL S. LEEMAN

Under the Direction of Catherine Y. Chang

ABSTRACT

Despite the negative psychological, emotional, relational, and physiological impact of traumatic events that often persist into adulthood (Breslau, Davis, Andreski, Peterson, 1991; Briere, 2004), some individuals may also experience posttraumatic growth (PTG) as they struggle to resolve their traumatic experiences. PTG is a process that originates from a cognitive response to cope with traumatic events, and an outcome that yields positive personal changes (Tedeschi & Calhoun, 1998). Several factors are linked to the increased likelihood of PTG such as symptom severity, coping resources, and personality characteristics (Tedeschi & Calhoun, 2004). This study examined the contributory roles of life-style themes, coping resources, trauma symptoms, and their interaction on different forms of PTG in a sample of college graduate and undergraduates. Wanting Recognition, Tension Control, Social Support, and trauma symptoms were significantly related to PTG. Significant interaction effects were revealed between Wanting Recognition, Social Support and trauma symptoms. Implications for practice and research are discussed.

INDEX WORDS*:* Posttraumatic growth, Life-style, Coping resources, Trauma

LIFE-STYLE, COPING RESOURCES, AND TRAUMA SYMPTOMS: PREDICTING POSTTRAUMATIC GROWTH

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Michael S. Leeman

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LIFE-STYLE, COPING RESOURCES, AND TRAUMA SYMPTOMS: PREDICTING OF POSTTRAUMATIC GROWTH

Introduction

Posttraumatic growth (PTG) refers to positive psychological changes that occur as individuals struggle to deal with their traumatic experiences (Tedeschi & Calhoun, 2004). A core component of the process of PTG is the occurrence of an extremely stressful event that challenges the core beliefs and threatens the assumptive world of the individual (Linley & Joseph, 2004; Tedeschi & Calhoun, 2004). In a sample of university students, Tedeschi and Calhoun (1996) found that persons who experienced a severe traumatic event reported a great degree of positive change, while persons who presented no remarkable events reported a modest degree of positive change. The threat to fundamental schemas, personal beliefs, and life goals causes significant emotional distress and initiates the cognitive struggle to make sense of the event and rebuild core beliefs (Cann, Calhoun, Tedeschi, Triplett, Vishnevsky, & Lindstrom, 2011). In a sample of college students, Wild and Paivio (2004) found that all forms of PTG were related to higher distress at the time of the traumatic event.

A certain level of coping is necessary to manage the initial stress of an adversity and to initiate the reformation of meaning systems that influence PTG (Tedeschi & Calhoun, 2004). High levels of coping resources are associated with positive psychological outcomes, such as increased levels of life satisfaction (Matheny, Curlette, Aysan, Herrington, Gfroerer, Thompson, & Hamarat, 2002), increased quality of life (Kristofferzon, Lindqvist, & Nilsson, 2011; Rinaldis, Pakenham, & Lynch, 2012), and increased social function (Solomon, Mikulincer, & Avitzur, 1989). However, Tedeschi and Calhoun (2004) suggested that individuals with exceptional levels

of psychological resources may deal with the effects of trauma so effectively that they fail to recognize PTG, whereas individuals who possess low levels of psychological resources may not be equipped well enough to recover from the effects of trauma and fail to recognize PTG. Individuals with adequate levels of psychological resources, however, are sufficiently equipped deal with the effects of trauma and are more likely to realize the potential positive changes that a traumatic experience offers (Tedeschi & Calhoun, 2004).

Personality qualities such as openness to experience (Zoellner, Rabe, Karl, & Maercker, 2008), extraversion (Sheikh, 2004), conscientiousness (Garnefski, Kraaij, Schroevers, & Somsen, 2008), and neuroticism (Evers, Kraaimaat, Van Lankveld, Jongen, Jacobs & Bijlsma, 2001) are modestly related to PTG. Similarly, optimism also has been moderately correlated with PTG (Zoellner et al., 2008). It is postulated that individuals who possess these characteristics may recognize positive emotions even in suffering, and may be able to process information about these experiences more effectively, producing the schema change reported as PTG (Tedeschi & Calhoun, 1996). Although researchers have found personality to be related to PTG, the Adlerian construct of life-style has been largely ignored. Different from personality traits, life-style refers to personality themes that contain individual perceptions about life experiences and relationships (Ansbacher & Ansbacher, 1956). Life-style is constructed on powerfully ingrained personal truths and beliefs that establish the unique and subjective way in which each individual deals with life and moves toward self-determined goals.

Karanci et al., (2012) revealed that different personality traits are significant predictors of different forms of PTG, and some personality traits are only effective under certain levels of symptom severity. Therefore, in order to understand the relationship between personality and PTG, it is important to understand the role of coping resources. As life-style includes one's

perceptions, it primarily determines whether or not an event produces a stressful reaction and the subsequent way in which coping resources are utilized. Furthermore, different life-styles are reported to endorse different coping resources (Kern, Gfroerer, Summers, Curlette, & Matheny, 1996). How different personality themes and their interaction with symptom severity and coping resources predict different levels of PTG has not been extensively explored. In this manuscript, the author will first review the literature on PTG. Second, personality, coping resources, and symptom severity will be reviewed as well as the way in which each variable influences PTG. Lastly, implications for future research suggestions will be discussed.

Posttraumatic Growth

Exposure to traumatic events is associated with a range of psychological consequences, such as anxiety, depression, posttraumatic stress, and cognitive distortions (Breslau, Davis, Andreski, & Peterson, 1991; Briere, 2004; Kessler, Sonnega, Bromet, & Hughes, 1995) as well as interpersonal dysfunction and risky sexual behavior (Ouimette & Brown, 2003; Polusny & Follette, 1995). Individuals exposed to interpersonal or relational trauma such as bullying, physical assault, sexual assault, and intimate partner violence generally report greater symptom severity in contrast to those who experience other forms of trauma such as motor vehicle accidents (Breslau, 2009; Lancaster, Melka, & Rodriguez, 2009; Shakespeare-Finch & Armstrong, 2010). This suggests that individuals exposed to traumatic events of a more personal nature are at greater risk for negative psychological outcomes. Despite the potentially harmful effects of trauma, many individuals also experience positive psychological changes referred to as PTG (Tedeschi & Calhoun, 1996).

PTG refers to positive psychological changes that occur as individuals struggle to deal with their traumatic experiences (Tedeschi & Calhoun, 2004). According to Tedeschi and

Calhoun (1998), PTG is both a process, which consists of a cognitive response to resolve psychological distress, and an outcome, which produces positive personal change. PTG has been reported by people who have experienced a wide range of events, such as, sexual assault (Grubaugh & Resick, 2007), combat (Maguen, King, King, & Litz, 2006), natural disaster (Cryder, Kilmer, Tedeschi, & Calhoun, 2006), cancer (Cordova, Cunningham, Carlson, & Andrykowski, 2001; Weiss, 2004), and HIV/AIDS (Milam, 2004).

PTG differs from other related constructs such as resilience, hardiness, optimism, and benefit finding. These concepts describe various traits or characteristics that enable people to manage adversity successfully, whereas PTG refers to positive personal changes that result from the struggle to deal with traumatic experiences (Tedeschi & Calhoun, 2004). Resilience is a consistent pattern of positive adjustment and healthy functioning subsequent to an adverse event (Bonanno, 2012). Further, since stress responses of resilient individuals tend to be minor and brief (Bonanno, 2004), resilience can even be considered a buffer against negative outcomes. Hardiness refers to specific personality characteristics: a belief that one can control events, a sense of deep investment in life activities, and an openness to change (Kobasa, 1979). Individuals who possess these characteristics are purported to remain healthy after the experience of an extremely stressful event. Optimism is a relatively stable individual variable that reflects the generalized perception of positive future outcomes (Scheier & Carver, 1985). Higher levels of optimism have been associated with increased subjective wellness during adversity (Carver, Scheier, & Segerstrom, 2010). Benefit finding is the ability to realize benefits or positive effects that result from a highly stressful or traumatic event and has been recognized as a buffer against the negative effects of posttraumatic stress (Helgeson, Reynolds, & Tomich, 2006). Individuals who experience PTG do not simply endure, or persevere, or return to baseline, but rather, they

develop beyond their previous level of functioning, psychological management, and personal awareness (Tedeschi & Calhoun, 1998). Typically, individuals who experience PTG recognize several positive life changes including greater appreciation for life and a reevaluation of priorities, more meaningful relationships, greater personal strength, recognition of new life possibilities, and increased spirituality (Tedeschi & Calhoun, 2004).

Several factors are linked to the increased likelihood of PTG including severity of symptoms, coping resources, and personality characteristics (Tedeschi & Calhoun, 2004). Tedeschi and Calhoun (2004) developed a model of PTG based on the assumption that people construct and depend on a unique set of core beliefs and assumptions about the world that direct their actions and generate an overall sense of purpose in life (Janoff-Bulman, 1992; Parkes, 1971). A core component of the process of PTG is the occurrence of an extremely stressful event that challenges the core beliefs (Linley & Joseph, 2004; Tedeschi & Calhoun, 2004). In fact, Lindstrom et al. (2011) determined core belief challenge to be the main predictor of PTG in a sample of college students enrolled in psychology courses, while Wild and Paivio (2004) found that a greater number of traumatic events, more recent traumatic events, and higher levels of distress at the time of the traumatic event were all related to higher levels of PTG. It is purported that the ensuing emotional distress initiates the cognitive struggle to make sense of the event and rebuild core beliefs (Cann, Calhoun, Tedeschi, Triplett, Vishnevsky, & Lindstrom, 2011). Consequent intrusive thoughts and automatic rumination over the traumatic experience potentially shift to intentional cognitive processing through self-disclosure in supportive social settings (Tedeschi & Calhoun, 2004). Effective cognitive reorientation helps individuals revise their challenged belief system, and recreate their assumptive world, which generates PTG.

If a traumatic event does not pose a challenge to previously held beliefs, the necessary processes that produce growth, such as deliberate rumination and self-disclosure, are unlikely to emerge (Lindstrom, Cann, Calhoun, & Tedeschi, 2013). Specific forms of rumination are more likely to promote cognitive processing, while other forms are more likely to prolong emotional distress and inhibit cognitive processing (Joseph, 2000; Siegle, Moore, & Thase, 2004). Rumination is intrusive when undesirable or negative thoughts occur with accompanied symptoms of distress (Elwood, Hahn, Olatunji, & Williams, 2009). Conversely, deliberate rumination involves purposeful consideration the event, the formulation of new, constructive goals and worldviews, and the resolution of related issues (Calhoun, Cann, Tedeschi, & McMillan, 2000). Tedeschi and Calhoun (2004) maintained that in order to experience PTG people not only must depart from some previously held goals and assumptions that are no longer beneficial, but also must endeavor to generate new goals and beliefs, and create new meaning based on new knowledge gained from the traumatic event.

Self-disclosure within supportive social settings is another factor that promotes the cognitive processes that activate PTG (Lindstrom et al., 2013). In a study of cancer patients, Cordova and associates (2001) found that cognitive processing was impeded in those who did not have the opportunity to process their illness with family and friends. Furthermore, a study at a Japanese university revealed that students who shared their experience of a highly stressful event with others and subsequently received reciprocal disclosure from others reported greater PTG than more constrained students (Taku, Tedeschi, Cann, & Calhoun, 2009). Mutual disclosure can encourage individuals to consider different perspectives about positive changes that have occurred as a result of the adversity and promote the development of new

understanding with support from others (Niederhoffer & Pennebaker, 2009; Tedeschi & Calhoun, 2004).

Trauma Symptoms

An event is traumatic if it is exceptionally distressing and at least temporarily exceeds an individual's psychological resources (Briere, 2004). The degree of psychological sequelae is associated with the intensity, duration, and interpersonal nature of the trauma (Green et al., 2000). Individuals exposed to interpersonal trauma are more susceptible to posttraumatic stress disorder (PTSD), experience greater levels of PTSD symptoms, and develop increased overall psychological sequelae than those who endure traumatic events of a non-interpersonal nature (Breslau & Kessler, 2001; Lancaster et al., 2009; Luthra et al., 2009; McKenney et al. 2005). Interpersonal trauma (IPT) refers to traumatic events in which an individual is personally assaulted, violated, and/or intimidated by another person or group whether known or unknown to the trauma survivor (Lily & Valdez, 2012). Shakespeare-Finch and De Dassel (2009) noted that the direct and intentional threat to personal physical integrity perpetrated by one person onto another may contribute to higher levels of trauma related symptoms. Furthermore, victims of interpersonal trauma typically experience more than one form of abuse, which may contribute to even greater symptom severity (Lancaster et al., 2009; Matthiesen & Einarsen, 2004; McKenney et al. 2005; Mikkelsen & Einarsen, 2002; Rivers, 2004; Tehrani, 2004). Interpersonal trauma may include intimate partner violence, and both physical and sexual assault, as well as bullying.

Deliberate acts of aggression can create a variety of challenges such as heightened fear, isolation, depression, and posttraumatic stress symptoms (Norris, Kaniasty, & Thompson, 1997) that can hinder posttrauma adjustment substantially (Briere, Kaltman & Green, 2008; Cloitre et al., 2009; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995; Tedeschi, 1999). The

psychological consequences of physical abuse can include a variety of negative psychological outcomes, including lowered self-esteem, increased levels of depression, anxiety, eating disorders, PTSD, and sexual dysfunctions (Clements & Sawhney, 2000; Johnson & Ferraro, 2000; McNamara & Fields, 2000).

Survivors of sexual trauma have a considerably higher occurrence of both mental and physical health problems (Follette, Polusny, Bechtle, & Naugle, 1996) and are more susceptible to engage in sexual risk-taking behavior and substance use (Kilpatrick, Acierno, Resnick, Saunders, & Best, 1997) in comparison to those with no history of sexual abuse. Approximately 20–38% of women experience some form of intimate partner violence in their lifetime including psychological, physical, and/or sexual abuse (Koss, 1993; Tjaden & Thoennes, 2000). In addition, roughly 78% of women who experienced physical assault by a partner also endured psychological abuse, such as intimidation, threats of bodily harm, and death at the time of the abuse (Tjaden & Thoennes, 2000).

Bullying has been referred to as a subtype of aggressive behavior (Berkowitz, 1993) and is associated with fear, victimization, and helplessness. Bullying by an individual or a group, whether in the workplace, in school settings, or online, refers to prolonged recurring negative actions such as psychological abuse, intimidation, rumors, slander, or gossip that are directed toward vulnerable or defenseless individuals (Bowes et al. 2009; Hallberg & Strandmark, 2006; Herba et al. 2008; Salmivalli 2010). Trauma related symptoms and general anxiety disorders have been identified in victims of bullying in the workplace (Bjorkqvist et al., 1994; Leymann & Gustafsson, 1996; Matthiesen and Einarsen 2004; Mikkelsen and Einarsen, 2002; Weaver, 2000) and in school settings (Idsoe, Dyregrov, & Idsoe, 2012). Due to the interpersonal nature of these types of trauma, victims are more likely to develop greater negative symptoms and, therefore,

may be more likely to experience posttraumatic growth depending on the degree of coping resources.

A certain level of coping is necessary to manage the initial stress of an adversity and to initiate the reconstruction of belief systems that influence PTG (Tedeschi & Calhoun, 2004). In a study with myocardial infarction patients, Garnefski and associates (2008) found significant positive relationships between PTG and the coping strategies of positive refocusing, positive reappraisal, and putting into perspective significant. In addition, a significant relationship was found between positive psychological outcomes and approach coping in a group of cancer patients (Rinaldis, Pakenham, & Lynch, 2012). Though research have not included particular coping resources, Tedeschi and Calhoun (2004) suggested that higher functioning individuals with exceptional levels of psychological resources may better deal with the effects of trauma and fail to recognize PTG, whereas individuals who possess low levels of psychological resources are more prone to experience traumatic symptoms. Individuals with average levels of psychological resources, however, are appropriately equipped to take into account the potential beneficial changes that trauma produces. Therefore, in order to assist individuals in managing stressful responses and promote their posttraumatic growth, it becomes important to identify and understand the role of coping resources in the posttraumatic growth process.

Coping Resources

Stress has been described as a significant disparity between an environmental demand and the capability of the individual to effectively respond to the demand (McGrath, 1970). In addition, stress has been characterized as a relationship between an individual and an environment that is perceived to be so threatening that it exhausts or exceeds the psychological resources of the individual (Lazarus & Folkman, 1984). Coping resources are traits, skills, and

positive assets that help individuals manage various coping strategies to deal with a range of stressors (Matheny, Aycock, & McCarthy 1993). Different from coping responses, or behaviors that occur after stressful events have emerged, coping resources are factors that are established and available before stressors arise (Pearlin & Schooler, 1978). According to the conservation of resources model (Hobfoll, 1989), people typically seek to sustain, safeguard, and strengthen their coping resources, and the potential loss of these resources instigates a stress response. While Lazarus and Folkman (1984) emphasized the individual's appraisal of both environmental demands and individual resources, Hobfoll (1989) maintained that the appraisal of coping resources is the single most important factor for predicting stress.

High levels of coping resources are associated with positive psychological outcomes, such as increased levels of life satisfaction (Matheny, Curlette, Aysan, Herrington, Gfroerer, Thompson, Hamarat, 2002), increased quality of life (Kristofferzon, Lindqvist, & Nilsson, 2011; Rinaldis, Pakenham, & Lynch, 2012), and increased social function (Solomon, Mikulincer, & Avitzur, 1989). Conversely, low levels of coping resources are linked to negative psychological outcomes, such as emotional distress (Herrington, Matheny, Curlette, McCarthy, & Penick, 2005), physical illness (Matheny, Ashby, & Cupp, 2005), stress and strain (Thomas, Matherne, Buboltz, & Doyle, 2012), anxiety (McCarthy, Foulandi, Juncker, & Matheny, 2006), and posttraumatic stress (Gilbar, Plivazky, & Gil, 2010).

Though people typically utilize a range of coping resources and strategies when confronted with stressful or traumatic events, certain efforts to cope have been associated with negative psychological outcomes. Avoidant coping strategies such as behavioral disengagement, self-blame, and denial are consistently associated with increased psychological distress (Cushway, Tyler, & Nolan, 1996; Jordaan, Spangenberg, Watson, & Fouche, 2007). On the other

hand, more active coping strategies such as planful problem solving and social support are negatively related to psychological distress (Briggs & Munley, 2008; Cushway, Tyler, & Nolan, 1996; Jordaan, Spangenberg, Watson, & Fouche, 2007). Likewise, active coping is associated with PTG. Wild and Paivio (2004) determined that active coping strategies, such as reinterpretation, use of humor, as well as social and religious support predicted PTG in a sample of college undergraduate students.

Generally, effective coping is dependent upon both internal and external resources (Mosak & Maniacci, 1999). These resources buffer the potentially negative consequences of stress, and equip individuals to manage stressors more effectively and to recuperate more quickly from encounters with stressful events (Marting & Hammer, 2004). Since the life-style provides a filter through which experiences are viewed, it essentially determines whether or not events are perceived as stressful (Kern, Gfroerer, Summers, Curlette, & Matheny, 1996). Furthermore, life-style influences the particular manner in which individuals use their resources in coping with stress and different life-styles appear to endorse certain coping resources more explicitly than others (Kern et al., 1996). Because life-style determines whether or not events are perceived as stressful, and because certain life-styles rely more heavily on certain coping resources (Kern et al., 1996), it is important to understand the role of life-style in the process PTG.

Life-style Constructs

Karanci et al., (2012) revealed that different personality traits are significant predictors of different forms of PTG, and some personality traits are only effective under certain levels of symptom severity. Personality qualities such as openness to experience (Zoellner, Rabe, Karl, & Maercker, 2008), extraversion (Sheikh, 2004), conscientiousness (Garnefski, Kraaij, Schroevers, & Somsen, 2008), and neuroticism (Evers, Kraaimaat, Van Lankveld, Jongen, Jacobs, &

Bijlsma, 2001) are modestly related to PTG. Similarly, optimism has been moderately correlated with PTG (Zoellner et al., 2008). It is postulated that individuals who possess these personality characteristics may recognize positive emotions even in suffering, and may be able to process information about these experiences more effectively, which produces cognitive reconfiguration reported as PTG (Tedeschi & Calhoun, 1996).

Though personality is reported to contribute to the process of PTG, the Adlerian construct of life-style has been essentially disregarded. Different from personality traits, life-style refers to personality themes that contain individual perceptions about life experiences and interpersonal relationships, which direct our behavior and goals (Ansbacher & Ansbacher, 1956). Life-style is the unique and subjective way in which each individual deals with life and moves toward self-determined goals. It includes the individual's opinion about self, others, and the world, and is constructed on powerfully ingrained personal truths and beliefs, or private logic. Private logic is comprised of lasting impressions formed during early childhood experiences that persist into adulthood. Painful early life experiences are likely to contribute to mistaken ideas, or faulty logic, that contribute to inappropriate or unhealthy patterns of behavior. Life-style provides routine ways for people to behave in a variety of different situations; however, an individual can become stuck in rigid, uncompromising behaviors that foster a fear of operating outside familiar tendencies (Slavik, 1995). The desire to maintain the security of familiar patterns of behavior restricts movement and creativity, produces ambivalence, and induces stress and even suffering.

Life-style themes are based on foundational Adlerian concepts such as social interest, compensation, and striving (Kern et al., 1996). Social interest is the concern for and the contribution to the welfare of others (Slavik, 1995). Adler (1964) maintained that we are all socially embedded and, therefore, our primary need is to have a sense of belonging or social

interest. How individuals understand and internalize events within their social context provides a system to interpret and react to various situations (Mosak, 2005). There is a positive relationship between social interest and life adjustment (Crandall & Lehmann, 1977; Zarski, Sweeney, & Barcikowski, 1982), perceived meaningfulness in life (Crandall 1984; Mozdzierz, Greenblatt, Murphy, 1986), life satisfaction (Gilman, 2001), and psychological well-being (Crandall & Putman, 1980). In addition, social interest has been negatively correlated with hopelessness (Miller, Denton, & Tobacyk, 1986) and depression (Crandall, 1975).

In order to achieve optimum mental health, it is important to resolve certain life challenges that are considered to be the basic tasks of life: vocation, relationships, and love (Adler, 1956; Carlson, Watts, & Maniacci, 2006; Dreikurs, 1967). However, some unexpected life challenges can become so stressful, as when the life-style is jeopardized, that they become traumatic (Adler, 1964). According to Ansbacher and Ansbacher (1956), Adler suggested that individuals withdraw from daily demands of life when the life-style cannot effectively resolve and/or respond to a distressing event, which results in a range of negative psychological outcomes. As a safeguard response, the individual ruminates on the effects and symptoms of the trauma instead of addressing the trauma and integrating it into the life-style. Despite the emotional distress caused by unproductive rumination, the individual benefits by avoiding the traumatic event and preserving the life-style (Carlson, Watts, & Maniacci, 2006). The avoidant response is a purposeful, yet ineffective method of retaining personally determined, long term, life goals that can result in feelings of inadequacy and discouragement. Discouraged individuals fear what life has to offer and are frightened by life challenges despite potential benefits that may result (Dinkmeyer & Dreikurs, 1963).

Life-style can be understood in terms of themes measured such as belonging-social interest, going along, taking charge, wanting recognition, and being cautious, as well as five supporting themes harshness, entitlement, being liked by all, striving for perfection, and softness (Wheeler, Kern, & Curlette, 1993). The themes provide an understanding of the way an individual perceives and responds to a specific situation or person. The extent to which an individual endorses each theme contributes to whether or not a life-style is healthy and functional or unhealthy and dysfunctional. Therefore, understanding of life-style, encouragement, re-education, and reorientation are important factors to consider when working toward positive change.

Tedeschi and Calhoun (2004) concluded that increased levels of psychological distress, or severity of symptoms, are a prerequisite to the process of PTG and that a certain degree of coping and psychological resources are critical to the development of PTG. Different life-styles are reported to endorse different coping resources (Kern, Gfroerer, Summers, Curlette, & Matheny, 1996) and because life-style includes core beliefs and individual perceptions, it largely determines whether or not an event is perceived as stressful. Therefore, since coping resources are important to the management of psychological distress that contribute to PTG, and life-style determines the accessibility of coping resources, it is reasonable to suggest that life-style is essential to the process of PTG.

Implications for Counseling

Highly stressful events and suffering commonly produce psychological distress and negative responses, but it is entirely possible that positive changes also can arise from extremely difficult circumstances; however, traumatic events are not simply antecedents to growth. Just as psychological disorders are not inevitable outcomes of negative experiences, PTG is not a

foregone conclusion of trauma. It is the individual struggle in the aftermath of trauma that determines the degree to which and whether PTG develops. Tedeschi and Calhoun (2004) maintained that certain individual characteristics and particular approaches to the management of distressing emotions increases the probability that PTG will occur. Furthermore, Janoff-Bulman (1992) proposed that there is a kind of psychological preparedness feature to PTG, which alludes to certain enduring qualities or personalities. Since personality constructs are a key component of PTG, professional counselors should understand the process by which these constructs impact PTG as well as how to facilitate growth after trauma.

Given that personality constructs are a key component to PTG, there are several benefits to understanding how an individual's life-style impacts the process of PTG. Certain life-style themes have been shown to predict certain psychological outcomes. For example, in a sample of university women who experienced at least one negative life event, the tendency to go along with others predicted depression, while going along with others and low social interest predicted anxiety (Herrington, Matheny, Curlette, McCarthy, & Penick, 2005). Additionally, Stoltz et al., (2013) found that a high need for acceptance from others and a high need for following social norms may impede the development of career adaptability. Furthermore, high social interest predicted the effectiveness of individual coping resources in a sample of college students (Kern et al., 1996).

Understanding life-style can help professional counselors determine the personality themes that are most likely to contribute the various domains of PTG. For example, it is conceivable that individuals with high levels of social interest may be more apt to experience growth in the form of more meaningful relationships. Consequently, professional counselors may be able to encourage growth more intentionally with a reasonable expectation of how growth will

manifest and develop a greater ability to recognize and process growth as it occurs. Since particular life-style themes endorse certain coping resources, professional counselors can better understand client strengths and deficiencies in coping and promote coping resources that most effectively impact PTG. Life-style awareness can equip professional counselors to use interventions that facilitate posttraumatic growth with sensitivity, so as not to recklessly guarantee positive changes in all clients struggling with trauma. In addition, professional counselors can maintain respect for the struggle with trauma recovery and, at the same time, provide with purpose opportunities for the exploration of the various forms of growth especially for those who have experienced great suffering.

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CHAPTER 2

LIFE-STYLE, COPING RESOURCES, AND TRAUMA SYMPTOMS: PREDICTING POSTTRAUMATIC GROWTH

Posttraumatic growth (PTG) refers to positive psychological changes that occur as individuals struggle to deal with their traumatic experiences (Tedeschi & Calhoun, 2004). Individuals who experience PTG do not simply endure and return to former levels of functioning, but rather, they develop beyond their previous psychological wellness (Tedeschi & Calhoun, 1998). The occurrence of posttraumatic growth (PTG) does not exclude the presence of trauma symptoms, which suggests that PTG and psychological wellness refer to separate processes that can present concomitantly within the same individual (Calhoun & Tedeschi, 1998; Linley & Joseph, 2004). In their model of PTG, Tedeschi and Calhoun (2004) maintained that significant levels of psychological distress increases the likelihood of initiating cognitive processes that produce positive personal changes. Several studies support the notion that individuals can experience both psychological distress and PTG simultaneously (Bluvstein, Moravchick, Shepps, Schreiber, & Bloch, 2013; Levine, Laufer, Hamama-Raz, Stein & Solomon, 2008; Loiselle, Devine, Reed-Knight, & Blount, 2011; Tedeschi & Calhoun, 1996; Widows, Jacobson, Booth-Jones, Fields, 2005). More specifically, Morris et al. (2005) revealed significant correlations between trauma-related symptoms and every domain of PTG with increases in every area except for appreciation of life, which decreased in the presence of high levels of distress. Therefore, it is important to further explore the dynamic between severity of symptoms and PTG.

As noted by Calhoun and Tedeschi (2004), clinicians who concentrate exclusively on decreasing trauma symptoms of clients may unintentionally neglect the benefit of encouraging

the development of new beliefs that can help restructure the assumptive world and promote positive changes in self-identity. The exploration of positive changes that may occur as a result of a struggle can highlight strengths, affirm values, and, most importantly, emphasize the value of the individual as greater than that of the event. PTG is measured on five domains including increased personal strength, more meaningful interpersonal relationships, greater appreciation for life, reordered priorities, and a fuller spiritual life (Tedeschi & Calhoun, 1995; Tedeschi & Calhoun, 2004). Therefore, whether or not PTG ultimately contributes to optimal psychological functioning, the development and recognition of PTG can empower clients to live the most purposeful and meaningful lives as they struggle to deal with the effects of trauma. Subjective well-being and psychological adjustment may not be the most significant outcomes to consider since individual happiness may not be as beneficial as whether one has learned from their experience, or preserved important relationships, or completed a major life task in the aftermath of trauma (McCrae & Costa, 1986).

Tedeschi and Calhoun (2004) proposed that a necessary component of PTG is the occurrence of a metaphorically seismic event that challenges the beliefs and goals of the individual and results in significant distress. Furthermore, higher levels of distress produce higher levels PTG. Several studies in support of the PTG model provide evidence that individuals may experience both posttraumatic stress and PTG at the same time (Levine, Laufer, Hamama-Raz, Stein, & Solomon, 2008; Loiselle, Devine, Reed-Knight, & Blount, 2011; Morrill, Brewer, O'Neil, Lillie, Dees, Carey, & Rimer, 2008; Tedeschi & Calhoun, 1996). More specifically, Morris et al. (2005) revealed moderate to strong positive correlations between posttraumatic stress symptoms and every domain of PTG except for appreciation of life, which had a negative correlation. Individuals who have experienced trauma of an interpersonal nature

endorse considerably higher levels of PTSD symptoms than those who have experienced other types of trauma (Briere & Scott, 2006; Lancaster, Melka & Rodriguez, 2009; Schumm, Briggs-Phillips, & Hobfoll, 2006). Interpersonal traumas are those caused by fellow human beings and, therefore, are perceived by victims as more deliberate, invasive, and malicious, and may include the perception of betrayal, each of which are associated with more negative consequences (Freyd, Klest, & Allard, 2005).

Generally, personality in the form of traits as measured by the NEO personality inventory (Costa & McCrae, 1985) is reported to contribute to PTG (Garnefski, Kraaij, Schroevers, & Somsen, 2008; Gunty, Frazier, Tennen, Tomich, Tashiro, & Park, 2011; Sheikh, 2004; Zoellner, Rabe, Karl, & Maercker, 2008); however, the relationship between personality traits and PTG lacks consistency. For example, while Tedeschi and Calhoun (1996) determined that personality traits of extraversion, openness to experience and optimism are positively correlated with the growth domains of new possibilities and personal strength, Bostock et al. (2009) found no relationship between optimism and PTG. Furthermore, a significant inverse relationship was found between neuroticism and PTG (Evers, Kraaimaat, Van Lankveld, Jongen, Jacobs, & Bijlsma, 2001; Garnefski et al., 2008), but a meta-analysis on benefit finding revealed no relationship between neuroticism and PTG (Hegelson, Reynolds, & Tomich, 2004). Though personality in the form of traits is reported to be an important factor in PTG, implications for clinical practice have not been clearly indicated. It is conceivable that specific personality traits determine which domains of PTG are most likely to be realized by certain individuals. Although Karanci et al. (2012) established that conscientiousness, agreeableness and openness are significant predictors of PTG and the majority of the domains, personality traits and specific domains of PTG have not been extensively explored. It was further noted that the relationship

between personality and the different forms of PTG may be clarified by understanding how coping and types of traumatic events influence the process (Karanci, Isikli, Gül, Erkan, Özkol, & Güzel, 2012). Additionally, it was determined that personality contributed to the causal relationship between coping and well-being, but that the dynamic between personality, coping efforts, and well-being is unclear (McCrae & Costa, 1986). Moreover, McCrae and Costa (1986) suggested that measures of personality are an essential component in coping research as personality represents a powerful alternative rationalization for supposed effects of coping on psychological adjustment.

Different from personality traits, life-style refers to personality themes that contain individual perceptions about life experiences and relationships (Ansbacher & Ansbacher, 1956). The individual life-style is constructed on powerfully ingrained personal truths and beliefs that establish the unique and subjective way in which each individual deals with life and moves toward self-determined goals (Ansbacher & Ansbacher, 1956). For example, because life-style provides filters through which experiences are viewed, they essentially determine whether or not events are perceived as traumatic and whether or not a subsequent stress response is elicited (Kern et al., 1996). Furthermore, life-style may be impacted by significant life events that are contrary to the fundamental logic of a life-style. Additionally, life-style influences the particular manner in which individuals apply their coping resources when confronted with a perceived stressor. Different life-styles appear to rely more heavily upon certain coping resources than others (Kern et al., 1996).

Life-style can be measured using the BASIS-A Inventory (Wheeler, Kern, & Curlette, 1993), which helps to recognize an individual based on personal beliefs developed in early childhood as it relates to current functioning. Five primary themes, Belonging-Social Interest,

Going Along, Taking Charge, Wanting Recognition, and Being Cautious, are supported by five subscales: Harshness, Entitlement, Being Liked by All, Striving for Perfection, and Softness. The recognition of life-style provides a foundation from which to build awareness. An understanding of the client life-style can help to determine the degree to which the trauma has been successfully integrated and whether or not individuals are living according to their fundamental values and goals. Because life-style is purposeful, it is relatively stable; however, it is subject to influence as new, significant, or traumatic experiences conflict with one's private logic, or one's principal understanding about the self, others and the world. The ability of the individual to successfully employ coping resources and integrate trauma into the life-style increases the likelihood of positive psychological outcomes. If the trauma is unresolved and unsuccessfully integrated into the life-style, the tendency of individuals is to ruminate over their traumatic reactions with the secondary gain of avoiding life tasks. For example, the life-style constructs of Social Interest and Being Cautious were found to contribute to posttraumatic growth in a study on college undergraduates who experienced at least one lifetime traumatic event (Leeman, Dispenza, & Chang, 2015).

Some growth studies reported that survivors of sexual assault reported negative changes such as an increase in cautiousness and a decrease in trust to be benefits of their traumatic experiences (Frazier, 2003; Frazier & Burnett, 1994; McMillen et al., 1995). Shakespeare-Finch and Armstrong (2010) found that sexual assault survivors reported lower levels of growth in the form of relating to others. These results suggest that some survivors of trauma may in fact consider their new beliefs about the world to be more accurate and more practical than their previous ways of thinking. Therefore, not only is it important to understand how life-style

contributes to PTG, but also how clinicians can encourage PTG through the accommodation of traumatic experiences into the life-style.

Certain life-styles are reported to interact with various coping resources (Kern et al., 1996). More specifically, Kern et. al. (1996) found that the BSI scale on the BASIS-A were positively related to increase coping effectiveness, whereas the BC scale was negatively related to coping effectiveness. The strongest overall correlation was between the BSI, BC and Social Support (SS) scales. Social interest was reported to be positively correlated with successful adjustment and well-being, particularly among groups that experienced various forms of high stress (Crandall, 1980). Stressful events can become debilitating when an individual determines that he or she does not possess the necessary coping resources to manage the subsequent distress (Curlette et al., 1990; Hobfoll, 1988). It is possible that, in the presence of higher stress, social interest may endorse more effective coping resources and produce greater levels PTG.

Coping resources are psychological assets that are available to individuals before stressful events occur and, therefore, effective coping resources may provide individuals a certain degree of preparedness that may lessen the negative consequences of stress (Matheny, Aycock, Curlette, & Junker, 1993; Pearlin & Schooler, 1978) and increase the probability of PTG. Meta-analyses of posttraumatic stress disorder research revealed that coping resources in the form of social support increases psychological adjustment to general stress and to traumatic events in particular (Brewin, Andrews, & Valentine, 2000; Ozer, Best, Lipsey, & Weiss, 2008). Thus, it is conceivable that the effect of life-style on both positive and negative outcomes varies depending the coping resources of the individual.

Tedeschi and Calhoun (2004) proposed that individuals with exceptional levels of psychological resources may better deal with the effects of trauma and fail to recognize PTG,

whereas individuals who possess low levels of psychological resources are more likely to experience traumatic symptoms; however individuals with sufficient levels of psychological resources, however, are adequately equipped to realize the positive changes that trauma can produce. Both intrusive rumination (Stockton et. al, 2011; Taku et al., 2009), or brooding, and social constraint (Cordova et. al, 2007; Nenova, DuHamel, Zemon, Rini, & Redd, 2013), or social withdrawal, are factors found to inhibit the PTG process. Conversely, methods of anxiety reduction and control of intrusive thoughts encourage more functional, reflective rumination over counterproductive brooding to influence PTG (Tedeschi & McNally, 2011). In addition, constructive self-disclosure and social engagement can help trauma survivors receive emotional support, gain insight from other survivors, and reorient their traumatic experiences (Tedeschi & McNally, 2011) to promote PTG.

Life-style as a Predictor of PTG

Both concepts, personality and life-style, are conceived of the social context coupled with the creative power of the individual (Adler, 1964; Rule & Bishop, 2006); however, different from personality traits, life-style refers to specific personality themes that individuals use to interpret the world, respond to different life challenges, and move toward life goals. Life-style is a holistic blueprint that equips an individual operates within the social system (Griffith & Powers, 2007). Although developed in early childhood, life-style persists into adulthood and establishes a life strategy that organizes our reality and gives us purpose.

Certain life-styles have been reported to consistently contribute to positive outcomes. Social interest is considered to be the principal Adlerian construct and is by far the most researched component of life-style. Social interest is reported to be positively correlated with life satisfaction (Gilman, 2001), self-efficacy (Dinter, 2000), psychological hardiness (Leak &

Willaims, 1989), perceived meaningfulness of life (Crandall 1984; Mozdzierz et al, 1986), life adjustment (Crandall & Lehman, 1977; Zarski et al., 1982), and psychological well being (Crandall & Putman, 1980), and negatively correlated with depression (Curlette & Kern, 2010), emotional distress (Herrington et. al., 2005), and life stress (Crandal, 1984). Moreover, according to Kern et. al (1996), high social interest coupled with moderate to low cautiousness is an even greater predictor of positive psychological outcomes. In addition, wanting recognition is associated with lack of depression and, along with social interest, has the least pathology in comparison to the other scales on the BASIS-A (Curlette, et al., 1993). Therefore, for the purposes of this study, particular consideration is given to the lifestyle domains of Belonging/Social Interest (BSI), Being Cautious (BC), and Wanting Recognition as measured by the BASIS-A inventory (Wheeler, Kern, Curlette, 1993).

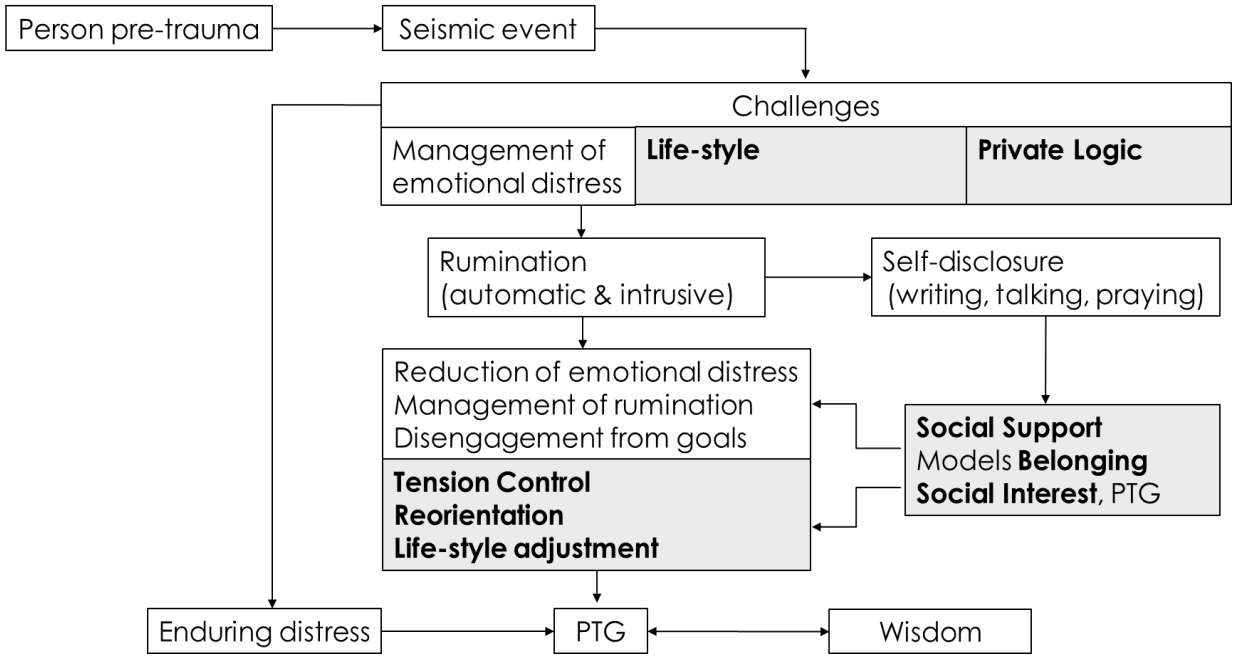
Due to the interpersonal nature of relational trauma and the inherent social component of PTG, it is expected that high levels of BSI and WR together with average to low levels of BC as measured by the BASIS-A will predict PTG. Certain life events that occur outside the scope of a person's life-style can induce extreme distress. Since life-style provides a lens through which experiences are viewed, it chiefly determines whether or not an event is perceived as distressing (Kern, Gfroerer, Summers, Curlette, & Matheny, 1996) and the subsequent manner in which a person responds to the distress (Kern et al., 1996). Moreover, certain life-styles tend to endorse certain coping resources more readily than others. Therefore, it is anticipated that life-style will have a mediating effect and determine under what conditions trauma symptoms will contribute to posttraumatic growth.

Coping Resources as a Moderator

Different coping resources can help to buffer the effects of an extremely stressful event as well as reduce the consequent symptoms of an extremely stressful experience (Kern, Gfroerer, Summers, Curlette, & Matheny, 1996). According to the CRIS-S, the Social Support (SS) scale measures the availability of family and friends, and the Tension Control (TC) scale measures the ability to lower tension by controlling one's thinking (Matheny & Curlette, 2010). Both of these coping resources are projected to facilitate anxiety reduction, control of intrusive thoughts, constructive self-disclosure and social support and, thus, predict PTG. Furthermore, it is anticipated that coping resources will have a moderating effect and will account for the relationship between trauma symptoms and posttraumatic growth.

People who have experienced traumatic events of an interpersonal nature show significantly higher levels of distress than those who have experienced other types of trauma (Briere & Scott, 2006; Lancaster et. al., 2009; Schumm et. al., 2006). For instance, Green et al. (2000) found that college students who experienced interpersonal violence developed trauma related symptoms more frequently than those who had experienced other forms of trauma. It is expected that the direct and intentional threat to personal physical wellbeing inflicted by one person upon another contributes to higher distress levels (Shakespeare-Finch & De Dassel, 2009).

Table 1. Model of PTG with Study Variables Added (Tedeschi & Calhoun, 2004)



Given the inherent interpersonal processes of academic settings, it seems particularly beneficial to explore the effects of interpersonal trauma and PTG in University student populations. Green et al. (2000) found that college students who experienced interpersonal violence developed trauma related symptoms more frequently than those who had experienced other forms of trauma. For the purposes of this study, interpersonal trauma refers to traumatic events in which an individual is personally assaulted, violated, and/or intimidated by another person or group whether known or unknown to the survivor (Charuvastra & Cloitre, 2008).

Tedeschi and Calhoun (2004) maintain that personality, coping, and symptom severity are all necessary components of the PTG process; however, to the knowledge of this researcher, no study has examined the dynamic of all these variables together and how they influence PTG. Research has been limited to personality traits and coping efforts, whereas this study attempts to

expand the research on PTG to include life-style, coping resources, and symptom severity to better understand their contributions to the process of PTG. This study aimed to investigate the contributory roles of life-style, coping resources, trauma symptoms, and their interaction on different forms of PTG in a sample of undergraduate students in a large urban University in the Southeast United States. Furthermore, it was investigated whether or not coping resources moderated the relationship between trauma symptoms and posttraumatic growth. Specifically, the research questions are: (1) Are trauma symptoms positively correlated with posttraumatic growth? (2) Is life-style (i.e., belonging/social interest, being cautious, and wanting recognition) related to posttraumatic growth? (3) Are coping resources (i.e., tension control and social support) related to posttraumatic growth? (4) Do coping resources moderate (i.e., tension control and social support) the relationship between trauma symptoms and posttraumatic growth? It was hypothesized that trauma symptoms would be positively correlated with posttraumatic growth. Furthermore, it was hypothesized that life-style (i.e., belonging/social interest, being cautious, and wanting recognition) would be significantly correlated with posttraumatic growth. Likewise, it was hypothesized that coping resources (i.e., tension control and social support) would be significantly correlated with posttraumatic growth.

Method

Participants

The study sample consisted of 302 undergraduate and graduate students (age: *M* = 22.98, *SD* = 4.19, range = 18–46 years) from a large urban university in the Southeastern United States. The sample included Freshmen (2%; *n* = 6), Sophomores (6.6%; *n* = 20, Juniors (36.4%; *n* = 110), Seniors (53%; *n* = 160), and Graduate students (2%; *n* = 6) (GPA: *M* = 3.11, SD = .48, range = 2.0-4.0). Exclusionary criteria required participants to be at least 18 years of age and to have experienced some form of interpersonal aggression within the past two years. Participation in the study was voluntary and each participant completed an informed consent before completing the study.

Participants consisted of 221 females (73.2%), and 79 males (26.2%), and 2 gender queer individuals (.7%). The sample comprised mainly of Black/African American (*n* = 117, 38.7%), Asian/Pacific Islander (*n* = 51, 16.9%), White/Caucasian (*n* = 40, 13.2%), and Native American (*n* = 17, 5.6%), though Biracial/Multiracial (*n* = 25, 8.3%), Latina/Latino (*n* = 8, 2.6%), Black/Non-African American (*n* = 13, 4.3%), Hispanic (*n* = 13, 4.3%), Middle Eastern (*n* = 9, 3.0%), East Indian (*n* = 5, 1.7%), and 4 participants who did not disclose (1.3%) also participated. Relationship demographics are as follows: 47.4% (*n* = 143) reported as single, 24.5% (*n* = 74) reported to be in a committed relationship, 12.6% (*n* = 38) reported being dating, 7% (*n* = 21) reported to be living together, but not married, 7.3% (*n* = 22) reported as married, 1.3% (*n* = 4) reported as divorced. Regarding sexual identity, 85.8% (*n* = 259) self-identified as Straight/Heterosexual followed by Bisexual (*n* = 23, 7.6%), Lesbian (*n* = 8, 2.6%), Gay (*n* = 6, 2%), Queer (*n* = 4, 1.3%), and 0.7% did not specify (*n* = 2). Regarding religion, 64.9% of participants self-identified as Christian (*n* = 196) followed by Judaism (*n* = 4, 1.3%), Buddhism

(*n* = 6, 2.0%), Hinduism (*n* = 2, .7%), Islam (*n* = 31, 10.3%), Agnostic (*n* = 23, 7.6%), Atheist (*n* = 15, 5.0%) and 5.6% (*n* = 17) identified as religiously unaffiliated, while 2.3% (*n* = 7) reported spiritual, but not religious, and 0.3% (*n* = 1) declined to answer. Approximately 32.8% (*n* = 99) of participants reported an annual income less than $20,000, 10.3% (*n* = 31) reported an income between $20,000-$29,000, 13.9% (*n* = 42) reported an income between $30,000-$39,999, 3.6% (*n* = 11) reported an income between $40,000-$49,999, 19.9% (*n* = 60) reported an annual household income between $50,000-$100,000, while 18.5% (*n* = 56) reported a total annual household income greater than $100,000, and 1% (*n* = 3) did not disclose.

Participants reported interpersonal aggression in the form of bullying (32.5%, *n* = 98), cyber-bullying (9.3%, *n* = 28) physical assault (14.6%, *n* = 44), sexual assault (10.3%, *n* = 31), and intimate partner violence (21.5%, *n* = 65), while 7.9% (*n* = 24) reported aggression of a different type and 4% (*n* = 12) chose not to disclose the type of aggression. One hundred and fifty-eight (52.3%) participants reported experiencing at least one lifetime traumatic event in addition to interpersonal aggression. One hundred and twenty-one (40%) participants also reported mental health diagnoses and approximately 25% (*n* = 30) of those participants indicated two or more diagnoses. Diagnoses demographics are as follows: 3.3% (*n* = 10) Major Depressive Disorder, 10.3% (*n* = 31) Anxiety, 6.3% (*n* = 19) Attention Deficit/Hyperactivity Disorder, 2% (*n* = 6) Obsessive Compulsive Disorder, .7% (n = 2) Tourette's, 4.6% (*n* = 14) Posttraumatic Stress Disorder, 3.3% (*n* = 10) Eating Disorder, 2% (n = 6) Bipolar Disorder, 2% (*n* = 6) Substance Abuse, .7% (*n* = 2) Alcohol Abuse, .7 % (*n* = 2) Dissociative Disorder, .7% (*n* = 2) Adjustment Disorder, 2.3% (n = 7) Learning Disability, and .1.3% (*n* = 4) undisclosed disorder. Approximately 83% (*n* = 251) of participants reported seeking mental health treatment in the form of medication with 10.9% (*n* = 33) currently taking medication, while 35.4% (*n* = 107)

reported treatment in the form of counseling with 9.6% (*n* = 29) currently in counseling. In addition, 27.5% (*n* = 83) of participants reported living with one or more medical diagnoses.

Procedure

After obtaining approval from the University's Institutional Review Board, participants were recruited from a large urban university online courses via the University's cloud-based research and participant management system (i.e., Sona-Systems, Ltd). Students interested in participating accessed and completed the online survey at their convenience. Students wanting research credit printed the final page of the survey, which stated "thank you for participating in the study", and submitted it to their instructor for verification of participation. The first section of the web survey included the informed consent. After affirming their voluntary consent to participate in the study, participants were able to complete the online survey.

Measures

Demographic form. A demographic form, developed by the researcher, requested a range of personal information including: gender, ethnicity, age, sexual identity, relationship status, class standing, and histories of mental health and medical diagnoses.

Trauma Symptom Checklist (TSC-40; Elliot & Briere, 1992). The TSC-40 is a 40-item self- report instrument that measures aspects of posttraumatic stress and other symptom clusters in adults associated with childhood or adult traumatic experiences. Symptom items consist of six subscales: Anxiety, Depression, Dissociation, Sexual Abuse Trauma Index (SATI), Sexual Problems, and Sleep Disturbance, as well as a total score. Each item is rated according to its frequency of occurrence over the most recent two months, using a four point scale ranging from 0 ("never") to 3 ("often"). The TSC-40 is valid and appropriately reliable with substantial alpha coefficients for the total score (.92) and an overall range from .60 to .92. In addition, interitem

correlations are reliable and span within the recommended benchmarks ranging from .21 to .45 (Neal &Nagle, 2014).

Post-Traumatic Growth Inventory (PTGI). The PTGI (Tedeschi & Calhoun, 1996) is a 21-item instrument for assessing positive outcomes of individuals who have experienced traumatic events. Responses are measured on a five-point scale ranging from "I did not experience this change as a result of my crisis" to "I experienced this change to a very great degree as a result of my crisis." Some sample items include, "I changed my priorities about what is important in life" and "New opportunities are available which wouldn't have been otherwise." Factors for the PTGI include New Possibilities, Relating to Others, Personal Strength, Spiritual Change, Appreciation of Life, and a total PTG score. The alpha coefficient of the total score of the PTGI was .94. Each score of the five domains showed moderate to high internal consistency ranging from .79 to .87. In addition, the PTGI has good construct validity with all 21 items appropriate indicators of their respective factors (Taku, Cann, Calhoun, Tedeschi, 2008).

Coping Resources Inventory for Stress-Short Form (CRIS-S). The CRIS-S (Matheny & Curlette, 2010) was derived from the CRIS (Matheny, Curlette, Aycock, Pugh, & Taylor, 1987) and is reported to have good internal consistency reliabilities for the six primary scales with values ranging from .84 to .88 (mdn = .86) and the reliabilities for the 12 subscales ranging from .78 to .88, with all but two above .80 (mdn = .83) (Matheny & Curlette, 2010). Evidence of its strong validity include studies relating the CRIS-SF to depression and anxiety (Curlette & Matheny, 2009) and perceived stress (Gnilka, 2010). The CRIS-S is a70-item Likert scale inventory ranging from "strongly agree" to "strongly disagree", which is designed to measure the effectiveness of perceived coping resources based on the Transactional Model of Stress (Matheny et al., 1987). Item examples include "I can manage most stressful situations very well"

and “I try too hard to please other people.” Exceptional internal consistency reliabilities were reported with scales ranging from.84 to .97 (Matheny & Curlette, 2010). The CRIS-SF provides a total coping resource effectiveness score (CRE) from 6 primary scales and 12 subscales.

Basic Adlerian Scales for Interpersonal Success-Adult Form (BASIS-A; Wheeler, Kern, & Curlette, 1993). The BASIS-A Inventory is a 65-item inventory designed to measure the Adlerian concept of the lifestyle. The premise of the BASIS-A Inventory is based on the assertion that the individual organizes a set of core beliefs into a persistent method of relating to others responding to life challenges. The BASIS-A helps assess themes in the lifestyle based on the perceptions of early childhood experiences. The styles and strategies evolving from these beliefs are assessed by five primary scales and five supporting scales on the BASIS-A Inventory. Responses are retrospective in nature and are measured on a five-point scale ranging from “strongly agree” to “strongly disagree.” The BASIS-A measures personal styles on five primary scales including Belonging-Social Interest (BSI), Going Along (GA), Taking Charge (TC), Wanting Recognition (WR), and Being Cautious (BC), and five supportive scales designed to facilitate interpretation. Strong validity and internal consistency reliability of the BASIS-A scales reported alpha ranges from .79 to .91 (Peluso, Peluso, Buckner, Curlette & Kern, 2004).

Results

Descriptive statistics for the measures are displayed in Table 1. Analyses of variance and independent *t*-test for demographic variables and outcome measures revealed no significant mean differences for age, gender, ethnicity, sexual orientation, relationship status, religious affiliation, class standing, residence status, mental health diagnosis, history of treatment, medical condition or chronic disability for any of the measures; however, there was a significant mean difference for straight and bisexual participants on the PTGI ($t(280) = -3.04$, $p < .01$, $d = -.36$)

and on the TSC-40 ($t(219) = -6.44$, $p < .001$, $d = -.77$). Therefore, sexual identity was controlled on all subsequent analyses.

Descriptive Statistics and alpha coefficients for Scaled Scores

Measure	Min.	Max.	*M*	*SD*	□
CRIS-S					
Social Support	12.00	38.00	28.77	4.68	.887
Tension Control	15.00.	45.00	34.36	5.67	.745
BASIS-A					
Wanting Recognition	11.00	55.00	40.61	7.37	.861
Belonging/Social Interest	9.00	44.00	31.59	7.05	.859
Being Cautious	8.00	40.00	19.74	7.00	.862
TSC-40	1.00	105.00	42.56	21.66	.947
PTGI	00	105.00	45.46	28.32	.958

Note. N = 302; Min = minimum; Max = maximum; CRIS-S = Coping Resources Inventory of Stress – Short Form; BASIS-A = Basic Adlerian Scales for Interpersonal Success-Adult; WR = Wanting Recognition; BSI = Belonging/Social Interest; BC = Being Cautious; TSC-40 = Trauma Symptom Checklist-40; PTGI = Posttraumatic Growth Inventory.

Table 1.

Correlations Between Posttraumatic Growth, Trauma Symptoms, Life-style, and Coping Resources.

Scale	PTG	2	3	4	5	6
2. TSC	.242**					
3. WR	.198**	224**				
4. BSI	.069	-.117*	.474			
5. BC	-.005	.371**	.005	-.206**		
6. SS	.027	-.111	.287**	.349**	-.192**	
7. TC	-.221**	.114*	.178**	.290**	.153**	.404**

TSC = Trauma Symptom Checklist, WR = Wanting Recognition, BSI = Belonging & Social Interest, BC = Being Cautious, SS = Social Support, TC = Tension Control, PTGI = Posttraumatic Growth Inventory

Moderation Model

According to Baron and Kenny (1986) and Hayes (2013), in order to test for linear moderation between continuous variables, the product of the moderator and the independent variable is added to the regression equation. Moderator effects are designated by a significant effect of an interaction variable when the effect of the independent variable and the moderator are controlled (Aguinis & Gottfredson, 2010; Hayes, 2012; 2013) versus evaluating the entire regression model, as in a significant F-test.

In order to test whether or not coping resources functioned as a moderating variable, the independent variable (i.e., trauma symptoms) and the moderator variables (i.e., social support and tension control) were mean centered and a regression analysis was conducted. First, the main effect for the predictor (trauma symptoms) was entered, second, the hypothesized moderating variable (tension control) was entered, last, the hypothesized moderating variable social support) was entered. The interaction terms (trauma symptoms x tension control x social support) were entered in the second step of the regression model. The overall model was significant $R^2 = .18$, $F(5, 296) = 18.66$, $p = .000$. Additionally, the trauma symptoms × social support interaction was significant for posttraumatic growth, $b = -.05$, $t(298) = -3.20$, $p = .001$; however, the trauma symptoms × tension control interaction was not significant $b = 0.01$, $t(298) = 0.86$, $p = .39$. As the relationships between the variables may be nonlinear in nature, both of the interactions were analyzed using procedures suggested by Aiken and West (1991). The equations were used to plot predicted values of the outcome variables for low, average, and high scores of social support and tension control (on the basis of plus or minus one standard deviation). See Figures 2 and 3.

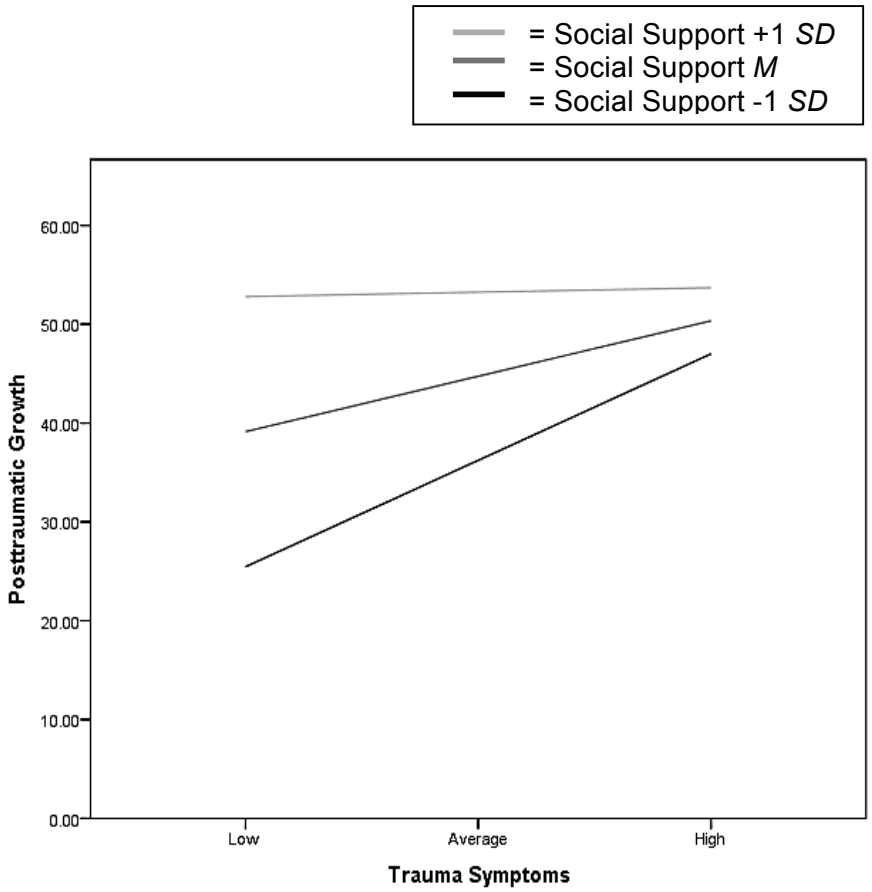
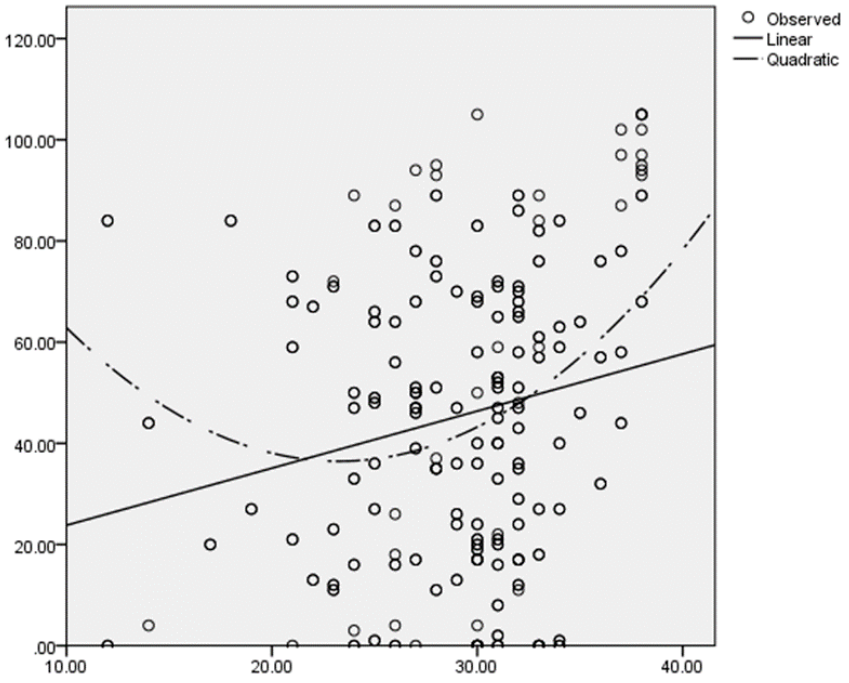


Figure 2
Social Support as a Moderator between Trauma Symptoms and Posttraumatic Growth
Note. Posttraumatic Growth = Posttraumatic Growth Inventory, Trauma Symptoms = Trauma Symptom Checklist-40, Social Support = Coping Resources Inventory for Stress-Short Form

Linear and Curvilinear Relationships between Coping Resources and PTG

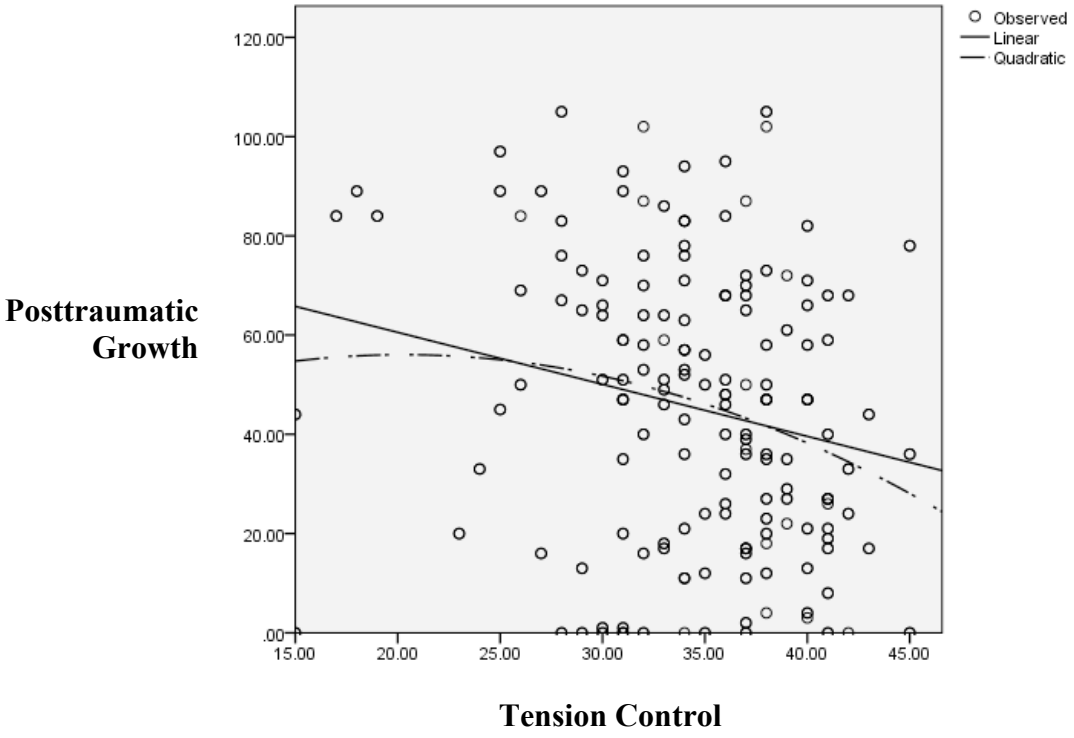
Hierarchical regression analyses were conducted to test whether the quadratic relationship between PTG and tension control and social support would exist over and above any linear relationship. Regression analyses with the centered score of the Social Support scale explaining PTGI total score was significant, $\beta = -1.24$, $p < .001$, $R^2 = .04$, adjusted $R^2 = .04$, $F(1, 301) = 12.54$, $p < .001$; however, the addition of the quadratic term (squared centered Social Support score) showed a significant increase in R^2, $\beta = 1.45$, $p < .001$, $R^2 = .09$, adjusted $R^2 = .08$, $\Delta R^2 = .05$, $F(2, 300) = 14.04$, $p < .001$, indicating that there was a significant quadratic effect in predicting total PTGI total score. Approximately 5% of the variability in PTG is being accounted for by the addition of the nonlinear effect.

Figure 1. Curvilinear Relationship between Social Support and Posttraumatic Growth



Additionally, the centered score of the Tension Control scale explaining PTGI total score was significant, β = -.210, p < .001, R^2 = .04, adjusted R^2 = .04, $F(1, 301) = 13.81$, p < .001; however, the model was no longer significant with the addition of the quadratic term (squared centered Tension Control score), β = -.587, p = .144, R^2 = .05, adjusted R^2 = .04, $\Delta R2$ = .01, $F(2, 300) = 8.00$, p < .144, indicating that there was not significant quadratic effect in predicting total PTGI total score. Less than 1% of the variability in PTG is being accounted for by the addition of the nonlinear effect.

Figure 2. Linear Relationship between Tension Control and Posttraumatic Growth



Discussion

This study investigated contributors of posttraumatic growth based on life-style constructs BSI, BC, and WR as measured by the BASIS-A, coping resources Social Support and Tension Control as measured by the CRIS-S, and trauma symptoms as measured by the TSC-40, and whether or not lifestyle mediated trauma symptoms and coping resources moderated trauma symptoms. Findings extended previous research on life-style and PTG (Leeman, Dispenza, & Chang, 2015) by using a different sample made up specifically of participants that have experienced interpersonal aggression within the past two years. Additionally, the present study provided support for the model of PTG proposed by Tedeschi and Calhoun (2004), which emphasized the importance of an extremely stressful event and adequate coping resources. Furthermore, empirical evidence corroborates the theoretical significance of trauma symptoms in the posttraumatic growth process.

Different from previous research on life-style and PTG (Leeman, Dispenza, & Chang, 2015), the constructs BSI and BC were not significant predictors of PTG; however Wanting Recognition (WR) contributed significantly to PTG. The WR scale measures the importance one assigns to being validated by others as well as the need to feel successful. Gaining approval and receiving recognition from others, and needing a sense of accomplishment is essential to feeling accepted and valued (Astrauskaite and Kern, 2011). Support and acknowledgment from others are elemental contributors in producing personal validation; therefore, high achieving individuals who are responsive to encouragement and validation, and are likewise sensitive to the needs of others, may be adequately prepared to successfully address and overcome the stressors of personal trauma. Additionally, wanting recognition may embolden individuals to seek out and

accept social support, which is a valuable coping resource that promotes the development posttraumatic growth.

Findings in the present study were consistent with conceptual literature associating trauma symptoms with posttraumatic growth (Tedeschi & Calhoun, 2004). Though a review of the literature on posttraumatic stress and posttraumatic growth (Zoellner & Maercker, 2006) revealed inconsistencies with both positive and negative correlations as well as no correlation between the constructs, studies on posttraumatic growth in victims of violence (Klein & Ehlers, 2009; Kunst, 2010) confirmed significant curvilinear relationships between peritraumatic distress, posttraumatic stress symptoms, and posttraumatic. This study contributes to the research on posttraumatic growth in victims of interpersonal aggression with findings that indicate trauma symptoms significantly contribute to posttraumatic growth. Considerable research on PTG has established a direct and compulsory relationship between trauma symptoms and PTG (Zoellner & Maercker, 2006). Trauma symptoms can provide the impetus for growth and activate the necessary processes that facilitate the development of growth. In fact, this study found that high levels of trauma symptoms were significantly, positively associated with higher levels of growth. More importantly, coping resources, specifically social support, moderated the relationship between trauma symptoms and PTG. Moreover, further exploration revealed a curvilinear relationship between Social Support and PTG. As social support increases, PTG decreases, but then increases. Tedeschi and Calhoun (2004) noted, ‘‘The degree to which individuals engage in self-disclosure about their emotions and about their perspective on their crisis, and how others respond to that self-disclosure, may also play a role in growth.’’ In addition, support from family and friends in the form of reassuring, comforting, and problem solving is an important resource that may help individuals find meaning in their experiences (Schroevers, Hegelson, Sanderman,

& Ranchor, 2009). It may be that as social support increases, there is more opportunity for individual needs to be met in more reassuring, comforting, and helpful ways. Linley and Joseph (2004) emphasized that it is not the support itself, but rather satisfaction with obtained social support which is important for people who have experienced trauma.

Tension Control contributed to PTG dramatically differently than Social Support. Higher levels of Tension Control revealed lower levels of PTG. Tension Control has an effect that potentially buffers the relationship between trauma symptoms and posttraumatic growth. Individuals with low to average levels of Tension Control may be able to cope with trauma symptoms in such a way as to facilitate posttraumatic growth, whereas individuals with high levels of Tension Control effectively deal with the effects of trauma and preempts the PTG process. This suggests a relationship that corroborates the assertion that higher functioning individuals with exceptional levels of psychological resources may better deal with the effects of trauma and fail to recognize PTG, and individuals who possess low levels of psychological resources are more prone to experience traumatic symptoms (Tedeschi and Calhoun, 2004); whereas, individuals with average levels of psychological resources are appropriately equipped to take into account the potential beneficial changes that trauma produces. Indeed, low to average levels of Tension Control are related to PTG.

According to Tedeschi and Calhoun (2004), the presence of a highly distressful event must occur for posttraumatic growth to emerge. Additionally, the ability to manage the initial distress of the traumatic event is necessary to allow for constructive cognitive processing and schema change essential to the posttraumatic growth process. Furthermore, mutually encouraging social support can influence the level of openness trauma survivors have to integrate new perspectives and positively reinterpret events, which increases the likelihood of

posttraumatic growth. In accordance with this methodology, the current study proposes that trauma symptoms instigate the utilization of coping resources and leads to posttraumatic growth. Considerable research on PTG has established a direct and compulsory relationship between trauma symptoms and PTG (Zoellner & Maercker, 2006). Trauma symptoms can provide the impetus for growth and activate the necessary processes, such as the incorporation of psychological resources, which facilitate the development of growth. Specifically, social support has a moderating effect relationship between trauma symptoms and posttraumatic growth that potentially buffers the negative outcomes of trauma. Though the overall model determined that tension control was not a significant moderating variable, further exploration revealed that average to low levels of tension control contributed significantly posttraumatic growth. Though no causal conclusion can be made, these findings provide further evidence of a curvilinear relationship between coping resources and posttraumatic growth.

The tension control scale measures the ability to effectively implement thought control and relaxation techniques while the social support scale measures the quality of one's social network. Findings of the present study coincide with previous research that indicates repetitive thought or deliberate rumination, a process in which the individual purposely turns inward to make sense of experiences and engage in adaptive problem solving (Martin & Tesser, 2006; Treynor, Gonzalez, & Nolen-Hoeksema, 2003), is significantly associated with posttraumatic growth. Additionally, Watkins (2008) determined that one of the core components of constructive repetitive thoughts, or, is the intrapersonal and situational context in which deliberate rumination occurs. Both management of rumination and social support are crucial elements in the process of posttraumatic growth (Tedeschi & Calhoun, 2004).

Implications for Counselors

The results of this study provided further evidence to support the essential contributory roles of trauma symptoms and coping resources in the posttraumatic process. Negative psychological symptoms are recognized as indicators of possible impairment, dysfunction, and mental illness; however, psychological symptoms also may be viewed more positively as necessary precursors for potential posttraumatic growth. Therefore, it is essential that professional counselors are prepared to distinguish signs and symptoms of trauma in their clients and recognize the value of coping resources, specifically tension control and social support. Although coping resources are available before a stressful event takes place, trauma is an extraordinary event that may overwhelm an individual, at least temporarily. Professional counselors have an opportunity to help clients become more aware of their coping resources, which coping resources are most helpful under their particular circumstances, and how to effectively apply their coping more purposefully and consistently.

BSI and BC may not have been significant in predicting PTG due to the nature and severity of the trauma reported by the participants. The life-style is limited in scope and operates within certain boundaries. In other words, we learn from our experiences only to the extent that our life-style allows. Just as extremely stressful events are proposed to sometimes upset important components of the assumptive world, (Parkes, 1971, Tedeschi & Calhoun, 2004) sometimes disturbing events can challenge the life-style so profoundly that psychological movement and interactions are impeded (Strauch, 2001) Though life-style is relatively stable over time, unpredictable and highly significant experiences that occur outside of the life-style, such as trauma, can influence the degree to which an individual endorses each life-style theme. It

may be that levels of social interest are not significant enough to promote PTG. An alternative explanation is that individuals with high social interest and a sense of belonging are better equipped to handle trauma and, therefore, do not experience posttraumatic growth.

Wanting recognition was revealed to be the most influential life-style construct of victims of personal aggression, which may account for the absence of Being Cautious (BC) as the desire for recognition transcends the unproductivity of guardedness. Traumatic events can produce negative changes such as traumatic symptoms that influence life-style. Specifically, wanting recognition may be indicative of the desire for people to tell and process their stories with others. Personal accounts of trauma are important to the development of posttraumatic growth because the process of composing trauma narratives compel survivors to face difficult questions that generate new meaning (Tedeschi & Calhoun, 2004). Conversely, the desire for recognition may inhibit the ability to recognize and heed social cues or warning signs and, therefore, may make individuals more vulnerable to trauma. Furthermore, individuals wanting recognition can be more sensitive to disapproval by others and experience higher levels of discouragement, which may exacerbate their emotional reaction and subsequent negative effects of trauma. Astrauskaite and Kern (2011) revealed a positive relationship between work harassment and victims wanting recognition and suggested that those who did not receive recognition felt devalued and rejected.

Traumatic experiences, especially of an interpersonal nature, disrupt personal, fundamental assumptions about self, others, and the world can force people to reexamine their assumptions and revise their private logic. Familiarity with life-style constructs equip professional counselors to help clients explore how their life-style can accommodate incongruent traumatic experiences. For example, clients wanting recognition may be more susceptible to harmful situations due to the desire to be recognized and validated; however, clients wanting

recognition may also be ambitious, sensitive to the needs of others, and mutually responsive to validation from others. Helping clients become aware of personal tendencies of their distinctive life-style and the consequent advantages and disadvantages can empower clients to make choices with greater intentionality and live more purposefully. Counselors competent in the application of coping resources are more capable of facilitating this client change. Specifically, the coping resources tension control and social support are essential to the posttraumatic growth process. These coping resources facilitate anxiety reduction, control of intrusive thoughts, constructive self-disclosure and promote positive social support. Considerable research on PTG has established a direct and compulsory relationship between trauma symptoms and PTG (Zoellner & Maercker, 2006). Trauma symptoms can provide the impetus for growth and activate the necessary processes, such as the incorporation of psychological resources, which facilitate the development of growth. Specifically, social support has a moderating effect on the relationship between trauma symptoms and posttraumatic growth that potentially buffers the negative outcomes of trauma.

Through encouragement, support, and intentional processing of personal value and achievement, professional counselors educated about life-style and coping resources can effectively meet the needs and help clients achieve a sense of personal validation, self-worth, and increase the probability of growth after trauma.

Limitations and Future Research

The current study has a number of limitations that may affect interpretation of the results. Participants in this convenience sample differ fundamentally in some consistent way from those participants who did not volunteer. For example, as the study was conducted electronically, the

sample may represent technologically proficient individuals who differ from those who were not willing or able to contribute in an online survey.

The study design required retrospective recall of traumatic events and is potentially vulnerable to recall bias. The current study explored total posttraumatic growth (PTG) among individuals who experienced four different types of personal aggression including physical assault, sexual assault, intimate partner violence, and bullying. Therefore, which domains of PTG are most likely to be experienced by survivors of personal aggression cannot be specified. Moreover, there may be variables specific to the different types of aggression that could contribute to posttraumatic growth that were not explored. Future studies may explore which type of personal trauma contributes to which domain of PTG.

Findings regarding how different constructs of life-style contribute to PTG are inconsistent. It is possible that life-style contributes to the development of growth throughout the entire processes and in several different ways. If a traumatic event does not pose a challenge to previously held beliefs, the necessary processes to produce growth such as personal disclosure and deliberate rumination are unlikely to emerge (Tedeschi & Calhoun, 2004). The distress caused by the discrepancy between previously assumed core beliefs and new, incongruous information is postulated to prompt the need to engage in these processes (Cann, Calhoun, Tedeschi, Kilmer, Gil-Rivas, Vishnevsky & Danhauer, 2010). First, whether or not an event is traumatic is largely due to the perception of the individual, which conceivably is associated with life-style. Furthermore some life-style themes may be more vulnerable and more sensitive to trauma, which potentially increases the chance for growth. Second, distress can be buffered by coping resources and certain life-style constructs endorse certain coping resources. Third, new information presented by trauma can be integrated into the life-style to produce positive changes

such as an increase in social interest. Fourth, a healthier or more functional life-style decreases the likelihood of re-victimization and increases a sense of contentment. Due to the complexity of personality, longitudinal studies on PTG may benefit from incorporating measures of life-style pretest, during, and posttest to better understand how different life-style constructs influence PTG throughout the process.

Although the moderation model was significant and explained a significant portion of the variance, the majority of the variance remained unexplained. Although the sample size provided adequate power, a larger sample size over a longer time period would have allowed for a more thorough and comprehensive analyses of outcomes relating to types of trauma exposure and different domains of posttraumatic growth. The posttraumatic growth processes may progress differently depending on the nature of the traumatic experience as well as other important variables (Zoellner & Maercker, 2006). Future research should consider other potential moderators to produce a more comprehensive analysis of the relationship between trauma symptoms and posttraumatic growth.

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APPENDICES

Appendix A

Georgia State University
Department of Counseling and Psychological Services
Informed Consent

Principle Investigator: Catherine Y. Chang, Ph.D.
Principle Student Investigator: Michael S. Leeman, M. S.

Title: Life-style, Coping Resources, and Trauma Symptoms: Predicting Posttraumatic Growth

Purpose:
You are being asked to take part in a research study. The reason for this study is to look at how growth happens after trauma. 1000 participants will be used in this study. Doing this study is completely up to you and will take about 30 minutes of your time. You must be at least 18-years-old to do this study.

Procedures:
If you take part in this study, you will be asked to answer some personal questions about past stressful experiences, and how you feel you have grown because of your experiences. You will also be asked how you deal with stress. Some questions will also ask for information such as age, gender, and race or ethnicity. The whole study is online and you will only have to take each survey once. No form of pay is offered for your time. You are given .5 course credits for every 30 minutes of research participation.

Risks:
In this study, you will not have any more risks than you would in a normal day. If for some reason you feel uneasy, you have several choices:

- You can take a break or end the study for any reason.
- You can get help at: Georgia State Counseling and Testing Center, 2nd floor of the Citizen's Trust Building at 75 Piedmont Ave, (404) 413-1640 or
- Substance Abuse & Mental Health Services Administration (SAMHSA) National Helpline: 800-662-HELP (4357). This helpline has 24-hour free and private help for mental health issues.

- You may contact the head of the study, Dr. Chang at 404-413-8010, to talk about any part of the study.
- Any counseling or help you may seek is at your own cost.

Benefits:
Entering into this study may not benefit you directly. We hope to understand better the relationship between lifestyle, stress, and growth.

Voluntary Participation and Withdrawal:
Doing this study is completely up to you. You do not have to be in this study. If you decide to be in this study and change your mind, you can drop out at any time for any reason. You can skip questions or stop at any time. You will not be punished for any decision you make. You must be at least 18-years-old to do this study.

Confidentiality:
We will keep your records private to the extent allowed by law. Dr. Chang, and Michael Leeman will have access to the information you provide. Information may also be shared with those who make sure the study is done correctly (GSU Institutional Review Board (IRB) and the Office for Human Research Protection (OHRP)). Although information sent over the Internet may not be always secure, no IP addresses will be collected. The study will not have any identifying information. All data will be stored on a password, firewall protected computer. Your name and other facts about you will not be seen when the study is shown or published. The results of the study will be explained and reported in group form. You will not be recognized as a participant.

Contact Persons:
Contact Dr. Chang at 404-413-8196 (cychang@gsu.edu) if you have questions, concerns, or complaints about this study. You can also call if think you have been harmed by the study. Call Susan Vogtner in the Georgia State University Office of Research Integrity at 404-413-3513 or svogtner1@gsu.edu if you want to talk to someone who is not part of the study team. You can talk about questions, concerns, or suggestions about the study. You can also call Susan Vogtner if you have questions or concerns about your rights in this study.

Copy of Consent Form to Subject:
You may print a copy of this form to keep. If you are at least 18-years-old and you want to be in this study, please click YES.

Appendix B

For your privacy and comfort, please ensure that you are in a private location and remember to close your browser when you have finished the study.

DEMOGRAPHIC QUESTIONNAIRE This is a survey that asks some basic information about you. Please answer each question to the best of your ability.

Q1 Please select the choice that best describes your gender.

- ❑ Male
- ❑ Female
- ❑ Transgender Male
- ❑ Transgender Female
- ❑ Gender Queer
- ❑ Other _____

Q2 Please indicate your age in years below.

Q3 Please select the choice that best describes your ethnicity.

- ❍ Asian-American/Pacific Islander
- ❍ Black/African American
- ❍ Black/Non-African American
- ❍ East Inadian
- ❍ Hispanic
- ❍ Latino/Latina
- ❍ Middle Eastern
- ❍ Native American/Alaskan Native/Pacific Islander
- ❍ White/European-American
- ❍ Bi-racial/Multi-racial
- ❍ Other _____

Q4 Please select the choice that best describes your sexual identity.

- ❑ Straight
- ❑ Gay Male
- ❑ Lesbian
- ❑ Queer
- ❑ Bisexual
- ❑ I Identify as _____

Q5 Please select the choice that best describes your religious affiliation.

- ❑ Buddhism
- ❑ Christianity
- ❑ Hinduism
- ❑ Islam
- ❑ Judaism
- ❑ Atheist
- ❑ Agnostic
- ❑ Religiously Unaffiliated
- ❑ Other _____

Q6 Please select the choice that best describes your current relationship status.

- ❍ Single
- ❍ Dating
- ❍ In a committed relationship
- ❍ Living together (not married)
- ❍ Married
- ❍ Separated
- ❍ Divorced
- ❍ Other _____

Q7 Please indicate your total annual household income?

- ❍ under $20,000
- ❍ 20,000-29,999
- ❍ 30,000-39,999
- ❍ 40,000-49,999
- ❍ 50,000-59,999
- ❍ 60,000-69,999
- ❍ 70,000-79,999
- ❍ 80,000-89,999
- ❍ 90,000-99,999
- ❍ 100,000-109,999
- ❍ 110,000-119,999
- ❍ 120,000-129,999
- ❍ 130,000-139,999
- ❍ 140,000-149,999
- ❍ 150,000+

Q8 Please select the choice that best describes how many hours per week you work at your job.

- ❍ 0 hours/week
- ❍ 1 to 10 hours/week
- ❍ 11 to 20 hours/week
- ❍ 21 to 30 hours/week
- ❍ more than 30 hours/week

Q9 Please select the choice that best describes your current class standing.

- ❍ Freshman
- ❍ Sophomore
- ❍ Junior
- ❍ Senior
- ❍ Graduate Student
- ❍ Other _____

Q10 Please select the choice that best describes your current living situation.

- ❍ Living Alone
- ❍ Living with Other Students
- ❍ Living with Roommates who are not Students
- ❍ Living with Parents or Family
- ❍ Living with a Husband/Wife/Domestic Partner/Significant Other
- ❍ Other _____

Q11 Please select the choice that best describes where you live.

- ❍ Residence Hall
- ❍ Off-Campus Housing
- ❍ Fraternity or Sorority Housing
- ❍ Living at home
- ❍ other _____

Q12 Please select the choice that best describes your residence status.

- ❍ In-State student
- ❍ Out-of-State Student
- ❍ International Student

Q13 Please list any GSU affiliated extracurricular activities in which you are involved (e.g., athletics, honor society, student government, clubs, etc.).

Q14 Please indicate your current GPA (e.g., 3.50).

Q15 Please indicate if you have ever experienced or witnessed any kind of traumatic event AT LEAST ONE TIME IN YOUR LIFE. (If more than one, please choose the event that you consider to be the most distressful.)

- ❍ Life threatening natural disaster
- ❍ Serious motor vehicle accident
- ❍ Serious personal injury or illness
- ❍ Death or serious illness of a parent or primary caretaker
- ❍ Death or serious injury of sibling
- ❍ Death or serious injury of a close friend
- ❍ Alcohol/drug abuse by parent or primary caretaker
- ❍ Divorce or separation of parents
- ❍ Witnessed violence toward others
- ❍ Physical abuse
- ❍ Sexual abuse
- ❍ Verbal, emotional, or psychological abuse
- ❍ Other _____
- ❍ None

Q16 At what age did you experience or witness the above traumatic event?

Q17 Please indicate if you have ever experienced any kind of personal aggression (e.g. verbally assaulted or threatened, betrayed, ridiculed or put down, punched, kicked, beat up, etc.) from someone and it caused you emotional or psychological distress and/or physical injury AT LEAST ONE TIME in your life.

- ❍ Yes
- ❍ No

Q18 Please indicate if you have ever experienced any kind of personal aggression (e.g. verbally assaulted or threatened, betrayed, ridiculed or put down, punched, kicked, beat up, etc.) from someone and it caused you emotional or psychological distress and/or physical injury WITHIN THE PAST 2 YEARS.

- ❍ Yes
- ❍ No

Q19 Please indicate the type of personal aggression you experienced WITHIN THE PAST 2 YEARS. (If you have experienced more than one, please indicate the one you consider to be the worst).

- ❍ Bullying (rumors/gossip, threats/intimidation, stalking, isolating, betrayal)
- ❍ Cyber-bullying (e-mail, cell phone messaging, social networking, chat rooms, and instant messaging)
- ❍ Physical Assault (serious threats and acts of violence)
- ❍ Sexual Assault (any type of unwanted sexual contact or behavior)
- ❍ Intimate Partner Violence (any type of verbal, emotional or physical abuse violent by a significant other)
- ❍ Other _____
- ❍ None

Q20 Briefly describe what happened (optional).

Q21 Please indicate if you have ever been formally diagnosed with a mental health issue by a health care professional (Psychologist, Psychiatrist, Professional Counselor, Social Worker, etc.).

- ❍ Yes
- ❍ No

Q22 Please select the choice that best indicates your diagnosis.

- ❑ Attention-Deficit/Hyperactivity Disorder (ADHD)
- ❑ Learning Disorder
- ❑ Tourette's Disorder
- ❑ Schizophrenia
- ❑ Bipolar Disorder (a.k.a. Manic-Depression)
- ❑ Depression
- ❑ Anxiety
- ❑ Obsessive-Compulsive Disorder
- ❑ Trichotillomania (Hair-pulling Disorder)
- ❑ Posttraumatic Stress Disorder
- ❑ Adjustment Disorder
- ❑ Dissociative Disorder
- ❑ Eating Disorder
- ❑ Substance Use Disorder
- ❑ Alcohol Abuse Disorder
- ❑ Other _____
- ❑ None

Q23 Were you formally diagnosed within the past two years?

- ❍ Yes
- ❍ No

Q24 Please indicate if you have been prescribed medication for a mental health issues by a health care professional.

- ❍ Yes
- ❍ No

Q25 Are you currently taking medication for a mental health issue?

- ❍ Yes
- ❍ No

Q26 Please indicate if you have ever sought counseling/psychotherapy for a relational and/or mental health issue (e.g., Individual Counseling, Group Counseling, Couples Counseling, Marriage or Family Counseling, etc.)

- ❍ Yes
- ❍ No

Q27 Are you currently in therapy?

- ❍ Yes
- ❍ No

Q28 What was the length of your counseling/therapy?

- ❑ 1 month or less
- ❑ several months
- ❑ 1 year
- ❑ 2 years
- ❑ 3 years
- ❑ 4 years
- ❑ more than 4 years

Q29 Please indicate if you are currently living with a medical condition. (You may list more than one.)

- ❑ Autoimmune Disorder (e.g., Lupus, Multiple Sclerosis, Rheumatoid Arthritis)
- ❑ Cardiovascular System (e.g., Coronary Artery Disease, High Blood Pressure, etc.)
- ❑ Digestive System (e.g., Crohn's Disease, Hepatitis, Gout, Ulcerative Colitis, IBS, etc.)
- ❑ Endocrine System (e.g., Diabetes, Neuropathy, Obesity, etc.)
- ❑ Genito-Urinary (e.g., Kidney Failure, Interstitial Cystitis, etc.)
- ❑ Musculoskeletal (e.g., Arthritis, Scoliosis, Fibromyalgia, Spine/Disc Disorders, etc.)
- ❑ Cancer
- ❑ Neurological (e.g., Seizure Disorder, Stroke, Traumatic Brain Injury, etc.)
- ❑ Pain (e.g., Chronic Pain, Migraines, etc.)
- ❑ Special Senses (e.g., Vision Loss, Hearing Loss, etc.)
- ❑ Respiratory (e.g., Sleep Apnea, COPD and Emphysema, Asthma, etc.)
- ❑ Other _____
- ❑ None

Q30 Please indicate if you are currently living with a chronic illness or disability condition (physical, mental, or emotional condition) that limits one or more of your daily life activities (i.e., transportation, feeding, breathing, etc.) :

- ❑ Chronic Illness Condition (e.g., Diabetes, HIV, Lupus, etc.)
- ❑ Physical Disability (e.g., mobility, muscular dystrophy, etc.)
- ❑ Sensory Disability (e.g., vision, hearing, etc.)
- ❑ Psychiatric Disability (e.g., anxiety, mood, etc.)
- ❑ Cognitive Disability (e.g., Neurological, traumatic brain injury, etc.)
- ❑ Learning Disability (e.g., Reading, Math, Processing, etc.)
- ❑ Other _____
- ❑ None