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Understanding Outcomes of Traumatic Experiences: Roles of Neuroticism and Coping

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UNDERSTANDING OUTCOMES OF TRAUMATIC EXPERIENCES: ROLES OF NEUROTICISM AND COPING

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Understanding Outcomes of Traumatic Experiences: Roles of Neuroticism and Coping
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Abstract

This study was to better understand how coping and neuroticism influence the negative and enduring potential of a traumatic experience. Traumatic experience has been shown to change individuals' cognitive processes. The hypothesis was supported that veteran males who have endured traumatic experience report more adaptive coping methods than University males. Emotional dispositions influence perception and severity of a traumatic experience, therefore, we hypothesized males scoring high for neuroticism (high-N) would report more maladaptive coping methods than males scoring low for neuroticism (low-N). The hypothesis was supported that high-N males would report more maladaptive coping methods in stressful situations than low-N males. The hypothesis was not supported that high-N males who sought therapy for a traumatic experience would terminate therapy prematurely or report lower life satisfaction at present.

Understanding Outcomes of Traumatic Experiences: Roles of Neuroticism and Coping
This study was to better understand how coping and neuroticism influence the negative and
enduring potential of a traumatic experience. Ozer, Best, Lipsey, and Weiss (2003) estimate that
50-60% of people in the United States will experience a traumatic event. Furthermore,
approximately 10-40% of people who experience a traumatic event will develop post-traumatic
stress disorder (PTSD) (Michaels et al., 1999). PTSD includes reexperiencing trauma, emotional
numbness, and other developments of debilities of the brain and bodily functions, which manifest
as autonomic, dysphoric, and cognitive symptoms (Diagnostic and Statistical Manual of Mental
Disorders-Third Edition [DSM-III]; American Psychological Association, 1980). While we
recognize other potential victims of PTSD, (e.g., firefighters, paramedics, nurses, and victims of

rape and abuse) the population of interest for this study is military veterans, especially since the

cases of PTSD among this population have risen in recent years.

PTSD stems from combat stress reaction (CSR). CSR is also known as battle shock or battle fatigue (Solomon, Mikulincer, & Avitzur, 1988). CSR can cause psychomotor retardation, withdrawal, increased sympathetic activities, stuttering, confusion, nausea, vomiting, and paranoid reactions (Grinker & Spiegel, 1945). Solomon et al. (1988) acknowledge the importance of soldiers' inability to function optimally from a military perspective when suffering from CSR. Solomon, Weisemberg, Schwarzwald, and Mikulinzer (1987) further state that combat stress has long-term effects that harm the affective part of the soldier, being his/her emotions. The most common debility suffered by combat stress is PTSD (Solomon, Mikulinzer, & Avitzur, 1988). Once known as "shell shock," PTSD damages the brain in two different ways. Traumatic brain injuries (TBIs) are the actual physical injury to the brain from being close to explosions. The other hazard of PTSD is the disturbance of neural circuitry that facilitates rational thought processes.

TBIs contribute to significant problems of cognitive and behavioral changes included in social and personal changes (Anson & Ponsford, 2006). Traumatic brain injuries have been associated with depression, anxiety, hostility, aggression, decreased self-esteem, and anger management problems. Lastly, Anson and Ponsford (2006) suggest that persons who knew of their brain-injury-related deficiencies displayed higher levels of maladaptive coping.

Although the outcome of TBIs is somewhat of an interest to this study, it is very difficult to determine whether or not a TBI has caused onset of PTSD. Further, many soldiers do not know if they have had a TBI. For this study, we will be reporting either the presence or absence of a traumatic event as described by the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV).

According to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) criteria A1 and A2 (American Psychological Association, 2000), the definition of a traumatic event is "the person experienced, witnessed, threatened death or serious injury....to oneself or others," and "the person's response involved fear, helplessness, or horror (pp. 467-68) (see Table 1). According to the DSM model of requirements for PTSD, the proximal stimulus is criterion A1, the traumatic event and criterion A2, the peritraumatic reaction which cause PTSD symptoms B, C, D, E, and F.

Aquino, Reed, Thau, and Freeman (2007) believe the study of how individual responses to war and its outcomes "warrants the attention of psychologists because while war is the most destructive activity, it is also among the most compelling" (p. 391). Psychological adjustment may be influenced by coping methods adopted to deal with stressful events (Anson & Ponsford, 2006). Although many variables influence responses to stressful situations, the current research focuses efforts on revealing relationships between adaptive/maladaptive coping and neuroticism and

whether a pattern is present revealing propensity for negative effects of a traumatic experience.

Table | PTSD Diagnostic Criteria

- Al. The person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity if self or others
- A2. The person's response involved intense fear, helplessness or horror
- B. The traumatic event is persistently reexperienced
- C. There is a persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness
- D. Persistent symptoms of increased arousal
- E. For more than a month
- F. That causes clinically significant distress or impairment in social, occupational, or other important areas of functioning

Note. Source: Diagnostic and Statistical Manual of Mental Disorders (4th ed., text rev.; American Psychiatric Association, 2000, pp. 467-468).

Coping has been operationally defined as *cognitive and emotional attempts to handle the internal* or *external demands of an encountered* situation (Lazarus & Folkman, 1980). The coping process consists of two different types of appraisal (Folkman & Lazarus, 1984). *Primary appraisal* determines threat level to oneself. Primary appraisal occurs as an individual determines whether a situation is irrelevant, benign-positive, or stressful (Folkman & Lazarus, 1985).

Secondary appraisal is the conscious experience of a reaction to a threat. Secondary appraisal evaluates ways in which to cope and asks the question, "What can I do?" Coping is the carrying out of that reaction. Conscious knowledge of several different coping options may lead persons to reappraise a situation as less of a threat. If a coping method becomes ineffective, individuals may reappraise threat level, thus, reappraise coping responses appropriately. According to theory by Lazarus (1966), appraisal occurs only if a stressful event compromises something valuable to the person. The potential of loss as an outcome is a necessary (but not sufficient) variable for threat and challenge (Lazarus, 1966). The complete process may circulate continuously as a stressful situation.

The way in which people cope with stressful events depends on the way they feel emotionally (Folkman & Lazarus, 1988). The appraisal stage is inclusive in that the more invested the stake, the higher the likelihood of an emotional encounter (Folkman & Lazarus, 1988). Throughout history, coping has mainly been a response to emotion. For instance, in the animal model of stress, coping is defined as *learned behaviors that contribute to survival in the face of life-threatening dangers* (Miller, 1980: Ursin, 1980). By fear, the response is to react with avoidance or escape. To magnify the fear by anger, the response is to be confrontational or to attack. Meninger (1963) and Vaillant (1977) state that within the egopsychology model, coping includes cognitive processes, such as denial, repression, suppression, and intellectualization, as well as problem-solving behaviors, which are used in the management or reduction of disturbing emotions.

There is an underestimation of the relationship between emotions and coping (Folkman & Lazarus, 1988). Emotions rely on cognitive assessments of the important person-environment causal between the person's livelihood and the options of coping (Lazarus, 1982; Lazarus, Averill & Opton, 1970; Lazarus & Folkman, 1984; Lazarus, Kanner, & Folkman, 1980).

People not only use approach-avoidance techniques or defensive measures to cope, but also a variety of problem-solving and emotion-regulating processes (Felton, Revenson, & Henrickson, 1984; Folkman & Lazarus, 1980, 1985; Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986; Folkman, Lazarus, Pimley, & Novacek, 1987; McCrae, 1982, 1984; Vitaliano, Russo, Carr, Maiuro, & Becker, 1985). Emotion influences coping both by motivating it and hindering it (Folkman & Lazarus, 1988). Emotion and coping both influence one another. The process of behavior is likened to a flow, which transitions from the perception of a situation to the appraisal of the situation's content. The appraisal part and the emotions that accompany are what

influence coping mechanisms. After appraisal, the person-environment becomes volatile and then is "reappraised". This reappraisal tends to make changes in the intensity of emotions as well as the quality of emotions.

Folkman and Lazarus (1988) report four coping methods related to changes in emotion.

Those styles are: planful problem solving, positive reappraisal, confrontive coping, and distancing.

Planful problem-solving increases positive emotional states (Folkman and Lazarus, 1988). Confrontive coping is related to decreased states of emotion. Confrontive is deemed to be expressions of anger and hostility toward the situation that caused distress. Confrontational coping and planful problem-solving are more stylistic of problem-focused coping while distancing and self-control are more characteristic of emotion-focused coping (Folkman and Lazarus, 1985). Positive reappraisal and distancing help to reduce stress (Folkman & Lazarus, 1988). Although there were significant differences in the findings according to age groups, one thing remained, coping mechanisms that avoided problem-solving lead to increased distress. Furthermore, distancing results in worsened emotional states. The primary suggestion is that when people avoid thinking about the problem that caused distress, the worse the symptoms of distress become.

Problem-focused coping is utilized when people understand that active measures can be taken to deal with the problem; emotion-focused coping delineates dealing mainly with emotional and physiological outcomes of a stressful encounter (Folkman & Lazarus, 1984). Problem-focused coping includes taking action, planning, waiting before acting, seeking help, and omitting certain activities. Emotion-focused coping includes denial, distancing, positive reinterpretation of events, and seeking social support.

Active coping is taking specific action to try to extinguish the stressor or to reduce its effects (Carver et al., 1989). Active coping includes taking direct action, increasing efforts, and

trying to use steps in attempts to cope. *Planning* includes the thought process of ways to deal with or cope with the situation. Planning involves strategies of action, steps to take, and ways to optimally handle the situation. Planning is considered problem-focused, however, it's different from problem-focused in the execution stage. Planning takes place in secondary appraisal, whereas, active coping happens in the coping stage.

Suppression of competing activities is another type of problem-focused coping, which means filtering out distractions which would take away from dealing with the problems (Carver et al., 1989). Some examples are putting some projects aside, being less committed to distracting projects, and letting things slide.

Another type of problem-focused coping mentioned by Carver et al. (1989) is *restraint coping*. Restraint coping is waiting before action. It involves self-control, patience, and eventual action when the opportunity arises.

The following coping strategies have implications of problem-focused, but one is actually emotion-focused (Carver et al., 1989). *Seeking social support for instrumental reasons* is a problem-focused type coping and includes getting advice, or seeking information or assistance. *Seeking social support for emotional reasons* is an emotion-focused type coping and includes getting emotional help from friends, getting sympathy and understanding from someone, and talking to someone about their feelings. These are two types of social support and both types are found in practice (Carver et al., 1989).

Depending on situational contexts and personality variables, it is important to understand the vacillating dynamics which influence individuals' coping choices (Gencoz, Gencoz, and Bozo, 2006). This dynamic may include a person choosing problem-focused, emotion-focused, or perhaps an indirect coping method, such as seeking social support. While it would seem that

seeking out social support is adaptive to coping, there is some research that suggests otherwise (Berman & Turk, 1981; Billing & Moos, 1984; Costanza, Derlega, & Winstead, 1988; Tolor & Fehon, 1987).

Focusing on and venting emotion is a coping style considered to be maladaptive. One focuses on his/her emotions fueled by the problem causing distress and the ventilation of those emotions (Scheff, 1979). In some instances, such coping is adaptive if someone is mourning the loss of a loved one in order to move on. However, for long-term adjustment, focusing on emotion is not considered to be beneficial. Focusing on emotions from distress may be a distracter from active coping.

Other coping styles considered to be maladaptive have been tested more in the laboratory than in coping research. To begin, maladaptive coping includes *behavioral disengagement*.

Behavioral disengagement involves relinquishing effort towards the distress, as in, giving up on efforts to achieve goals with which the stressor may be interfering (Carver et al., 1989). One phenomenon of behavioral disengagement includes *helplessness*. Behavioral disengagement occurs when individuals have the expectation of poor coping outcomes.

There are various types of behavioral disengagement (Carver, Peterson, Follansbee, & Scheier, 1983). One is mental disengagement. Mental disengagement occurs by using several mind-altering activities which take away thoughts of the behavior or goal with which the distress is interfering. Mental disengagement occurs when a person cannot disengage their behavior, he/she will disengage mental state. Some examples include distraction with TV, daydreaming, and sleeping. A common factor in these types of disengagement is mental escape. Currently, it is important to coping research to better understand the coping efficacy of mental disengagement in stressful times (Roth & Cohen, 1986).

Avoidance coping is often found in relation to negative affect (Ben-Zur, 2009). Although short-term avoidance coping (Carver et al., 1989) or for uncontrollable stressful events (Lazarus, 1983), disengagement strategies may be beneficial to distract the person long enough for him/her to function for other important tasks. This is a maladaptive strategy for long-term because it does not seek to change the situation. It only serves to temporarily disengage the individual without lowering distress or decreasing negative affect (Ben-Zur, 2009). Ben-Zur (2009) concludes that coping is an important variable in the psychological wellness of daily life, and the interactive effects of coping strategies deserve more research.

Positive reinterpretation and growth is a type of emotion-focused coping which emphasizes managing emotions rather than dealing with the stressor. Another scale recognized is denial, which occurs during primary appraisal. Primary appraisal is when individuals perceive threats to self (Lazarus, 1966). There are several ways to interpret and assess the fundamental successes of denial as a coping mechanism (Carver et al., 1985). Denial is operationally defined as Reports of refusal to believe that the stressor exists or trying to act as though the stressor is not Real (Carver et al., 1985).

The coping method opposite of denial is *acceptance* (Carver et al., 1989). The effectiveness of acceptance as a coping mechanism is debatable. Although it would seem that one who utilizes acceptance is one who is dealing with the stressor, there are two facets of questioning about acceptance as an adaptive coping method. The first is that acceptance occurs in primary appraisal. Acceptance in the absence of an active coping method relates to secondary appraisal. Carver et al., 1989). Secondary appraisal is the cognition of all options of a response to a threat (Lazarus, 1966). Acceptance may be important in cases where the stressor is something that must be adapted to, rather than something that can be changed. For research purposes, it may be difficult

to measure acceptance as an efficacious coping style without also measuring primary and secondary appraisals of a stressful encounter.

Religion is the last scale of the COPE inventory (Carver et al., 1989). Recent data collected suggest that religion is of high importance to most individuals when coping with stress (McCrae & Costa, 1986). Individuals turn to religion for various reasons including positive reappraisals, reinterpretation and growth from a traumatic experience, and as a method for active coping. The decision to use religion in the COPE was from a general basis that people turn to religion in times of distress (Carver et al., 1989). It seems as though individuals may turn to religion or spiritual guidance when situations are more uncontrollable. This would be another difficult measure in research unless a measure was added for perceived controllability of a traumatic experience.

Research shows cognitive changes in individuals who have endured traumatic life experiences (Swickert & Hittner, 2009). Three trademark cognitive changes emerge from trauma. First, trauma victims report changes in self-perception. Second, trauma victims report changes in the quality of their relationships with others. Third, trauma victims report changes in their view or philosophy of life. After trauma, persons often realize the fragility of life and develop a greater appreciation for it. Persons may also refocus their spirituality, which leads to a strengthening in spiritual beliefs (Meisenhelder, 2002; Tedeschi & Calhoun, 1995). The coping method for religion/spiritual guidance asserts value for this reason.

The assumption of this study is that veteran males may report more rigorous types of traumatic experience than University males. As a result, it follows that veteran males may have established more helpful or adaptive ways of coping when compared to University males.

Hypothesis #1: Veteran males who have endured traumatic experience will report significantly more adaptive coping methods than University males.

Research has reconceptualized the dynamics which occur between contextual processing and stable traits and has considered personality variables and processing approaches (Mischel & Shoda, 1995). Attention has also been given to the changing processes that occur with each distressful encounter (Folkman & Lazarus 1980, 1985; Folkman et al., 1986). To view coping as a developmental process would be inaccurate. In fact, it would take away the ability for a person to use different coping styles as they relate to person-environment.

Research suggests people use problem-focused and emotion-focused coping at the same time (Folkman & Lazarus, 1980). The general view in social psychology is that people access both problem-focused *and* emotion-focused styles by using different systems. In addition, a general view is held that coping methods that are not problem-focused are variations of emotion-focused coping. Namely, the way in which people integrate both coping styles is influenced by 1) context, Folkman and Lazarus (1988) 2) specific problem, and 3) personality.

Personality has much to do with the way people cope with stress. For the purposes of this study, the personality dimension of interest is neuroticism. Many studies have investigated the role of neuroticism in coping (Bolger & Zuckerman, 1995; McRae & Costa, 1986; O'Brien & DeLongis, 1996) and exposure to traumatic experience (Affleck, Tennen, Urrows, & Higgins, 1994; Bolger & Schilling, 1991; Bolger & Zuckerman, 1995; David, Green, Martin, & Suls, 1997; Magnus, Diener, Fujita, & Payot, 1993; Marco & Suls, 1993). The personality dimension of neuroticism has been of most interest with regard to traumatic exposure and coping (Bolger & Zuckerman, 1995). Clearly, individual differences are present in appraisals of stress and coping strategies (Dunkley, Zuroff, & Blankstein, 2003). Studies relating to stress (Bolger & Schilling,

1991), coping effectiveness (Bolger & Zuckerman, 1995), and appraisals (Gunthert et al., 1999) are more robust for the personality dimension of neuroticism.

Neuroticism has been defined as the predisposition to experience negative affect (McRae, 1990). Neuroticism refers to the "relatively stable tendency to respond with negative emotions to threat, frustration, and loss" (Lahey, 2009, p. 241). Costa and McRae (1992) state neuroticism is a nonspecific personality variable that reflects an individual's predisposition to experience a wide variety of negative emotion. As a result, those who strongly identify with neuroticism have the tendency to experience more anxiety, depression, hostility, and self-consciousness (McRae & Costa, 1986).

Lahey (2009) points out the public health significance of neuroticism. He opines that although neuroticism has not been widely appreciated, it is the most robustly studied of personality dimensions. He challenges psychologists and health professionals to pursue understanding of the mechanisms through which neuroticism is related to mental and physical disorder. Neuroticism is a predictor of comorbidity of mental and physical disorders and the use of health services. Lahey (2009) states, "Knowing why neuroticism predicts such a wide variety of seemingly diverse outcomes should lead to improved understanding of commonalities among those outcomes and improved strategies for preventing them" (p. 241). Further, neuroticism is apparently related to a broader range of mental and physical disorder than other dimensions of personality (Malouff, Thorteinsson, & Schutte, 2005, 2006; Saulsman & Page, 2004).

Several researchers have studied the role of disposition on stressful events (Diener, Larsen, & Emmons, 1984). Bolger and Zuckerman's (1995) differential exposure-reactivity model suggested that personality differences have the potential to influence both exposure to stress and reactivity to a stressful encounter. Hammen, (1991) in her stress generation model, showed that

depressed persons tend to experience higher rates of controllable stressful events than persons who are not depressed. Similarly, neuroticism has also been associated with an increased number of negative life events in nonclinical trials (Magnus, et al., 1993; Ormel & Wohlfarth, 1991). Bolger and Schilling (1991) found that high-neuroticism (high-N) persons have the propensity to experience interpersonal stress. Several studies have reported that when compared with low-neuroticism (low-N) persons, high-N persons experience more distress in response to major life stress (Innes & Kitto, 1989; Ormel & Wohlfarth, 1991; Parkes, 1990).

Laboratory studies by Larsen and Ketelaar (1989, 1991) found that neuroticism was associated with increased affective reactivity to induced negative mood. Larsen and Ketelaar (1991) concluded from this evidence that neuroticism is related to a "preparedness to respond with stronger negative affect" (p. 138). An alternative explanation by Gunthert, Cohen, and Armeli (1999) suggest that perhaps high-N individuals lack the ability to adequately cope with stress, which results in more negative emotional reactivity. Gunthert et al. (1999) are suggesting that personality is destiny; more specifically that high-N persons do not have the ability to cope effectively when encountering life stressors. It would be better and more useful to suggest that while high-N persons may be predisposed to cope in certain maladaptive ways, perhaps they can *learn* ways to cope more effectively with stressful situations. This may serve as a hypothesis for future study, as encouraged by Dr. Bill Frederickson (personal communication, February 15, 2008).

Research suggests that neuroticism influences persons' primary and secondary appraisals of stressors as well as their affective responses to those appraisals (Tellegen, 1985). More specifically, perhaps high-N persons perceive stressful events as more aversive and more stressful. Research also shows that high-N persons have a history of poor coping (O'Brien & DeLongis,

1996). Evidence reported by Gunthert et al. (1999) indicate that high-N persons, when compared with low-N persons, use catharsis, self-blame, wishful thinking, and hostile reaction to cope with daily stressors. Previous research showed that high-N persons use escape-avoidance coping mechanisms (O'Brien & DeLongis, 1996). Therefore, the present study is interested in replicating the finding that high-N individuals tend to have maladaptive coping skills.

Research indicates that problem-focused coping is positively related to positive affect and negatively related to negative affect (Ben-Zur, 2009). Research also indicates that avoidance coping is positively related to negative affect and negatively related to positive affect (Ben-Zur, 2009). More importantly, research suggests that problem-focused coping is a moderator of avoidance coping influences upon positive and negative affective outcomes (Ben-Zur, 2009).

Coping methods may be linked to the emotional reactivity of high-N individuals (Mathews, Deary, & Whiteman, 2003). Since research indicates emotions have much to do with the way individuals perceive life stressors, high-N persons may choose maladaptive coping methods by default or because they simply do not know a *different* way to cope.

Hypothesis #2: High-N males within both groups will report significantly more maladaptive coping styles than low-N males.

Hypothesis #3: High-N males who use maladaptive coping methods and who sought therapy for a traumatic experience will report higher/early termination rates from therapy and lower satisfaction with life at present than low-N males.

Methods

Participants

This study consisted of two samples from the population. The first was a convenience sample of males from the student body at the University of Central Oklahoma, Edmond, Oklahoma (N = 40); experiencing a serious accident (N = 15), natural disaster (N = 6),

witnessing a violent death (N = 18), and experiencing a combat situation (N = 0). The second sample were males in the United States military located through personal contact by researcher at the University of Central Oklahoma, Oklahoma State University-Oklahoma City, and Armed Forces recruitment agencies in the metro area (N = 35); experiencing a serious accident (N = 22), natural disaster (N = 12), witnessing a violent death (N = 22), and experiencing a combat situation (N = 32). All participants were between the ages of 18 and 65. Participants must not have been suffering or recovering from a terminal phase of illness. The conditions of participation were made at onset of the experimental study and participants must have answered 'no' to every question in order to continue with the study (see Appendix C).

Males from the University voluntarily participated for the study through an on-line research system called "SONA System." Informed consent was given at onset of study (see Appendix A). Participants were given extra credit in their Introductory Psychology classes.

Veterans voluntarily participated to fill out the research packet. Informed consent was given at onset of study. A different informed consent was used for the veteran sample (see Appendix B).

Materials

SONA System is an on-line survey system designed to facilitate experimental studies by offering surveys, questionnaires, and correspondence at the convenience of the participant, as well as the researcher. The researcher inputs all questions of the survey into SONA system, complete with possible, objective responses of the participant. The researcher must also include informed consent and any conditions of participation, which could possibly eliminate participants from the study. The researcher then 'opens timeslots for participation'. In those timeslots, participants volunteer online at their convenience.

This study utilizes the COPE inventory by Carver et al. (1985). The COPE has been through several steps of development Carver et al. Weak loadings have been revised and/or deleted, new items written, and readministered. Throughout its development, some of the COPE scales were composed quite a while ago while others are still rather recent.

The COPE inventory presently includes 15 distinctive scales (see Appendix D). Most of the dimensions on the scale address functional ways of coping, while some dimensions are less than functional. Other coping styles may surface; however, some of those styles could either help or hinder successful adjustment.

The COPE contains the following instructions:

"We are interested in how people respond when they confront difficult or stressful events in their lives. There are lots of ways to deal with stress. This questionnaire asks you to indicate what *you* generally do and feel when *you* experience stressful events. Obviously, different events bring out somewhat different responses, but think about what you *usually* do when you are under a lot of stress."

The COPE also emphasizes that those responding treat each item as independent of other items, that there are no right or wrong answers, and that responses reflect what the respondent does rather than what most people would do. Responses are scaled 1-4 and read, "I usually don't do this at all (1)", "I usually do this a little bit (2)", "I usually do this a medium amount (3)", and "I usually do this a lot (4)".

NEO PI-R (Costa & McRae, 1992) will be used to establish scores for neuroticism. The neuroticism component of the NEO PI-R has 12 items measured by Likert scale. Responses are, "Strongly disagree (SD)", "Disagree (D)", "Neutral (N)", "Agree (A)", and "Strongly Agree (SA)" (see Appendix E). When tested, alpha reliability for the neuroticism component of NEO PI-R was .92 and had a 6-year stability coefficient where N = 1,359. Retest reliability was .87 using the same N. Longitudinal data provided by Costa and McRae (1994) showed that 25-year

retest coefficients for NEO PI-R were stable for 80% of the variance.

Traumatic Experience Questionnaire was used to determine the presence or absence of traumatic experiences for participants (see Appendix F). The questionnaire has 10 items, 9 of which can be answered "yes", "no", or "not applicable". The last question is a free response question which gives participants an opportunity to describe a personal traumatic event in which they felt their life or someone else's life was in danger. The free response is reserved for participants who could not answer "yes" to previous trauma questions but had experienced a traumatic event. The inventory is based on DSM-IV criteria.

Therapy Index was used to determine if participants sought therapy for a traumatic experience reported on the Traumatic Experience Questionnaire (see Appendix G). The index has 5 items relating to types of therapy, longevity of therapy, and whether or not the participant felt benefited by therapy. The fifth item is a free response question which provides participants an opportunity to comment on treatment/therapy.

Design

The research design is a 2x2 between-between group utilizing Analysis of Variance for statistical analysis. The dependent variables are ratings on a Likert-scale from the COPE inventory (Carver et al., 1985), scores for neuroticism from the NEO PI-R (Costa & McRae, 1992), responses from the Traumatic Experience Questionnaire, and responses from the Therapy Index. There are two independent variables with two levels each. The first independent variable consists of veterans and University males. The other independent variable is high-N and low-N males.

The COPE measures fifteen different dimensions of coping. Adaptive coping methods include, but are not limited to: active coping, planning, positive reinterpretation and growth,

confrontive coping, seeking social support, spiritual guidance/religion, suppression of competing activities, and humor. Maladaptive coping methods include, but are not limited to: focusing on and venting emotions, denial, behavioral disengagement, mental disengagement, and substance abuse.

The neuroticism scores of NEO PI-R (Costa & McRae, 1992) range from 0-48 and are considered high, average, or low. Low-N scores are designated as 0-13. Average scores range from 14-21. High-N scores are designated as 22+. High scorers for neuroticism are designated as "high-N". Low scorers for neuroticism are designated as "low-N". Items for neuroticism measure an individual's tendency to feel inferior, experience negative affect, and feel anxious or generally fearful. Participants answered all items for the NEO PI-R. Neuroticism, however, was of main interest. Neuroticism items are numbered 1, 6, 11, 16, 21, 26, 31, 36, 41, 46, 51, 56 (see Appendix E).

The Traumatic Experience Questionnaire yields reports of traumatic experience and whether or not experiences caused the participants to feel helplessness, horror, or fear for their life or someone else's life as designated by the DSM-IV. The questionnaire is an important control measure for analysis of participants who are high-N and use maladaptive coping methods.

The Therapy Index yields responses to active seeking of therapy, types of therapy, longevity of therapy, and gives participants an opportunity to comment on latent dissatisfaction or insight into what they thought about treatment/therapy. The index is important for analysis of participants who are high-N, use maladaptive coping methods, and have sought therapy but for whom therapy was either unsuccessful or not satisfactory.

Procedure

University males were recruited from undergraduate psychology courses at the

University of Central Oklahoma. Participants signed onto the SONA research system at leisure
for participation. Informed consent, conditions of participation, the COPE inventory, NEO PI-R,
Traumatic Experience Questionnaire, and the Therapy Index were given to participants through
SONA system. First, participants were given informed consent (see Appendix A), which stated
the purpose and procedure of the study, potential benefits, potential risks and discomforts,
confidentiality, and the contact information for the University counseling center. Participants
printed off and signed informed consent before proceeding with the experiment. Next, the
participants were given conditions of participation of which they must have answered 'no' to
before proceeding (see Appendix C). Participants answered the 60-question COPE inventory
(Carver et al., 1985) (see Appendix D), NEO PI-R (Costa & McRae, 1992) (see Appendix E),
Traumatic Experience Questionnaire (see Appendix F), and Therapy Index (see Appendix G).
The data responses were then downloaded and entered into an Excel Spreadsheet. Using the
Excel spreadsheet, data were transferred into SPSS for data analysis.

Veteran males were recruited through personal contact by the researcher at the University of Central Oklahoma, Oklahoma State University –Oklahoma City, and surrounding Armed Forces recruitment agencies in the metro area. Participants received informed consent, conditions of participation, COPE inventory, NEO PI-R, Traumatic Experience Questionnaire, and Therapy Index at the onset of study. First, participants were given informed consent (see Appendix B), which stated the purpose and procedure of the study, potential benefits, potential risks and discomforts, confidentiality, and the contact information for the Department of Veteran Affairs, Mental Health Services. Participants signed informed consent before proceeding with the

experiment. Next, the participants were given conditions of participation of which they must have answered 'no' to before proceeding (see Appendix C). Participants answered the 60-question COPE inventory (Carver et al., 1985), NEO PI-R (Costa & McRae, 1992), Traumatic Experience Questionnaire, and Therapy Index. The data responses were then downloaded and entered into an Excel Spreadsheet. Using the Excel spreadsheet, data was transferred into SPSS for data analysis. Many veteran participants volunteered in absence of inducements; others were easily coaxed with hamburgers, brownies, or apple pie with cool whip.

Results

An alpha value of .05 was used for all statistical tests; confidence intervals were set at 95%; degrees of freedom for Veteran/University sample (1, 69) (Veteran/University N = 75; Veterans = 35, University = 40); degrees of freedom for High-N/ Low-N sample (2, 69) (High-N = 30, Low-N = 27, Average-N = 18). The unequal sample sizes could have caused additional complexities, however, SPSS controls for unequal cell frequencies.

A 2x2 Analysis of Variance was conducted to analyze the effects of veteran status and neuroticism on mental disengagement as a coping mechanism. The means and standard deviations as a function of the two factors are presented in Table 2. The ANOVA indicated no significant interaction between neuroticism and veteran status, F(2, 69) = .516, p = .599, partial $\eta^2 = .015$, but did yield significant main effects for veteran status, F(1, 69) = 11.24, p = .001, partial $\eta^2 = .140$, and significant main effects for neuroticism, F(2, 69) = 9.26, p = .000, partial $\eta^2 = .212$. Follow-up analysis to the main effect for neuroticism consisted of multiple comparisons. Tukey HSD procedure was used to control for Type I errors. Results from this analysis indicate high-N males use significantly more mental disengagement than low-N males. Further, main effects for veteran status show that veterans use significantly less mental disengagement than

University males (see Figure 1).

A 2x2 Analysis of Variance was conducted to analyze the effects of veteran status and neuroticism on behavioral disengagement as a coping mechanism. The means and standard deviations are presented in Table 3. The ANOVA indicated a significant interaction between neuroticism and veteran status, F(2, 69) = .3.35, p = .041, partial $\eta^2 = .089$, significant main effects for veteran status, F(1, 69) = 6.39, p = .014, partial $\eta^2 = .085$, and significant main effects for neuroticism, F(2, 69) = 8.51, p = .000, partial $\eta^2 = .198$ (see Figure 2).

A 2x2 Analysis of Variance was conducted to analyze the effects of veteran status and neuroticism on humor as a coping mechanism. The means and standard deviations are presented in Table 4. The ANOVA indicated no significant interaction between neuroticism and veteran status, F(2, 69) = .143, p = .867, partial $\eta^2 = .004$, significant main effects for veteran status, F(1, 69) = 7.65, p = .007, partial $\eta^2 = .100$, and no significant main effects for neuroticism, F(2, 69) = 2.58, p = .083, partial $\eta^2 = .070$. ANOVA indicated veterans use significantly less humor than University males (see Figure 3).

A 2x2 Analysis of Variance was conducted to analyze the effects of veteran status and neuroticism on denial as a coping mechanism. The means and standard deviations of the two factors are presented in Table 5. The ANOVA indicated no significant interaction between neuroticism and veteran status, F(2, 69) = 2.15, p = .125, partial $\eta^2 = .059$, no significant main effects for veteran status, F(1, 69) = 7.42, p = .392, partial $\eta^2 = .011$, but yielded significant main effects for neuroticism, F(2, 69) = 6.67, p = .002, partial $\eta^2 = .162$. Main effects for neuroticism indicate high-N males report significantly more denial than low-N males (see Figure 4).

A 2x2 Analysis of Variance was conducted to analyze the effects of veteran status and neuroticism on substance use as a coping mechanism. The means and standard deviations of the

two factors are presented in Table 6. The ANOVA indicated no significant interaction between neuroticism and veteran status, F(2, 69) = 2.77, p = .759, partial $\eta^2 = .008$, no significant main effects for veteran status, F(1, 69) = .052, p = .821, partial $\eta^2 = .001$, but yielded significant main effects for neuroticism, F(2, 69) = 7.37, p = .016, partial $\eta^2 = .112$. Main effects for neuroticism indicate high-N males report significantly more substance abuse for coping than low-N males (see Figure 5).

A 2x2 Analysis of Variance was conducted to analyze the effects of veteran status and neuroticism on focusing on and venting emotions as a coping mechanism. The means and standard deviations of the two factors are presented in Table 7. The ANOVA indicated no significant interaction between neuroticism and veteran status, F(2, 69) = .488, p = .616, partial $\eta^2 = .014$, no significant main effects for veteran status, F(1, 69) = .190, p = .664, partial $\eta^2 = .003$, but yielded significant main effects for neuroticism, F(2, 69) = 13.17, p = .000, partial $\eta^2 = .276$. Main effects for neuroticism indicate high-N males report significantly more focusing on and venting emotions than low-N males (see Figure 6).

A 2x2 Analysis of Variance was conducted to analyze the effects of veteran status and neuroticism on positive reinterpretation and growth as a coping mechanism. The means and standard deviations as a function of the two factors are presented in Table 8. The ANOVA indicated no significant interaction between neuroticism and veteran status, F(2, 69) = .241, p = .787, partial $\eta^2 = .007$, no significant main effects for veteran status, F(1, 69) = .369, p = .546, partial $\eta^2 = .005$, but did yield significant main effects for neuroticism, F(2, 69) = 8.77, p = .000, partial $\eta^2 = .203$. Follow-up analysis to the main effect for neuroticism consisted of multiple comparisons. Tukey HSD procedure was used to control for Type I errors. Results from this analysis indicate high-N males use significantly less positive reinterpretation and growth than

low-N males (see Figure 7).

A 2x2 Analysis of Variance was conducted to analyze the effects of veteran status and neuroticism on planning as a coping mechanism. The means and standard deviations as a function of the two factors are presented in Table 9. The ANOVA indicated no significant interaction between neuroticism and veteran status, F(2, 69) = 1.08, p = .346, partial $\eta^2 = .030$, no significant main effects for veteran status F(1, 69) = .036, p = .849, partial $\eta^2 = .001$, but significant main effects for neuroticism, F(2, 69) = 5.59, p = .006, partial $\eta^2 = .139$. Follow-up analysis to the main effect for neuroticism consisted of multiple comparisons among high-N and low-N. Tukey HSD procedure was used to control for Type I errors. Results from this analysis indicate high-N males use significantly less planning than low-N males (see Figure 8).

Lastly, a 2x2 Analysis of Variance was conducted to analyze hypothesis #3 that high-N males who sought therapy for a traumatic experience would report higher/early terminations rates from therapy and lower satisfaction with life at present than low-N males. The means and standard deviations as a function of the two factors are presented in Table 10. The ANOVA indicated no significant interaction between neuroticism and veteran status, F(2, 69) = 1.56, p = .217, partial $\eta^2 = .043$, significant main effects for veteran status F(1, 69) = .469, p = .034, partial $\eta^2 = .064$, but no significant main effects for neuroticism, F(2, 69) = 1.98, p = .146, partial $\eta^2 = .054$ (see Figure 9). ANOVA indicated University males, on average, report more therapy seeking than veteran males following a traumatic experience.

Discussion

Results from this study indicate support for hypothesis #1 that veteran males would report more adaptive coping methods than University males. This is only true for the coping methods of mental and behavioral disengagement. The assumption is that veterans may be exposed to more

rigorous types of trauma, therefore, may have learned more adaptive coping responses. Items for mental disengagement relate to daydreaming and other avoidance behaviors such as sleeping or watching television. Behavioral disengagement items refer to giving up on a goal all together rather than figuring out ways to accomplish the goal. University males may have more opportunity to disengage behavior from more accommodating lifestyles than those who actively serve in the military. If we consider traumatic experiences, veterans report life-threatening experiences such as combat and exposure to elements. Veterans may become conditioned to face traumatic situations by lack of opportunity to disengage behavior or mental state. This could occur from enduring stressful situations for extended periods of time. However, this would not explain the lack of mental and behavioral disengagement of veterans who have reintegrated into civilian life and are not actively serving in the military. Military training may condition individuals to solve problems using tasks and procedures during stressful situations which may explain the veteran tendency to stay focused on a goal until it is accomplished. From military training, veterans may have been conditioned to remain calm and resort to training and procedures rather than reacting to a stressful situation. Such conditioning may explain the lack of mental and behavioral disengagement in the veteran sample. Lack of mental and behavioral disengagement could be an adaptive response for veteran men that actually benefit them in civilian life.

We found a significant difference for the coping mechanism of humor. Veterans reported using significantly less joking, laughing, and making fun of a situation than University males. Combat soldiers, clearly, have been exposed to explosions, gunfire, death, and loss, sometimes for long periods of time. The severity of trauma may be a reason for the significance across this dimension. One part of my research gave participants an opportunity to respond freely about a

traumatic experience. While some University males reported traumatic events, the magnitude of those reported by combat veterans somehow seemed incomparable. For research purposes, there is healthy skepticism about traumatic experience psychometrics or the calibration of trauma. From sheer reporting by both samples, it is no wonder why combat veterans use significantly less humor than University males. Whether humor is an adaptive or maladaptive coping behavior is debatable. Perhaps for daily stressors, humor could be considered an adaptive response. For severe types of trauma, assuredly, humor would be inappropriate.

Hypothesis #2 was supported that high-N individuals use significantly more maladaptive coping methods than low-N individuals. This theory was supported across every maladaptive coping dimension; denial, focusing on and venting emotions, mental and behavioral disengagement, and substance use. Support for this hypothesis serves as replication for studies yielding similar results.

Low-N males reported significantly more planning and positive reinterpretation and growth than high-N males. Planful problem-solving increases positive emotional states (Folkman and Lazarus, 1988) and are considered adaptive coping responses. This finding supports the inverse hypothesis #2, and that is low-N males would report more adaptive coping responses than high-N males.

We had hoped to understand a little bit more about the negative potential of a traumatic experience as a result of maladaptive coping styles and the personality dimension of neuroticism. Hypothesis #3 stated that high-N individuals who sought therapy would report lower life satisfaction and early drop-out rates from therapy. Results were non-significant, or more accurately, inconclusive due to lack of data. Regretfully, this result may come from poor inventory use at study onset. It would have been more beneficial to add a life satisfaction

inventory for this study.

Results indicated a significant difference between veterans and University males for seeking therapy after a traumatic experience. Veteran males on average, reported less therapy seeking after a traumatic event than University males. This difference may be due to the stigma that military veterans face when seeking mental health services. Many veterans believe that seeking therapy is an admission of weakness. Further, those veterans who are higher on the chain of command may believe they would lose rank if they admit a need for psychological health services.

Some limitations to this study include the effect that age may have had on some of the significant findings across groups. It is possible that as one experiences life, coping mechanisms may become more adaptive.

Another limitation was that although this survey analyzed coping and neuroticism after a traumatic event, we have no indication of coping and neuroticism of participants before the traumatic event. Future research in this area will need to be conducted using longitudinal studies.

Replication of this study would be beneficial, however, a more proactive approach should be used when designing or choosing inventory to measure how traumatic experience affects life satisfaction. If neuroticism is going to be used as a personality dimension of interest, a valid question is, "How do we know if negative life satisfaction is from an enduring traumatic experience or the influence of neuroticism?".

Some suggest that perhaps high-N individuals lack the ability to adequately cope with stress, which results in more negative emotional reactivity (Gunthert, Cohen, & Armeli, 1999). Gunthert et al. (1999) are suggesting that personality is destiny; more specifically that high-N persons do not have the ability to cope effectively when encountering life stressors. It would be

better and more useful to suggest that while high-N persons may be predisposed to cope in certain maladaptive ways, perhaps they can *learn* ways to cope more effectively with stressful situations. It may be reasonable to suspect that high-N individuals cope in maladaptive ways simply because they do not know of different ways to cope. Conscious knowledge of several different coping options may lead persons to reappraise a situation as less of a threat. (Folkman & Lazarus, 1985). Dr. Bill Frederickson encouraged the design for the next study (personal communication, February 15, 2008). For the next study, high-N and low-N individuals will be identified using NEO PI-R and they will be given the COPE inventory. Next, they will be randomly assigned to one of two conditions: 1) education on adaptive coping methods 2) education on maladaptive coping methods. Repeated measures will be used by giving the COPE inventory after a length of time. Statistical tests may reveal if high-N individuals who are educated about adaptive coping methods actually begin to use more adaptive coping responses to manage stressful situations. If tests reveal significance, then we can conclude that while high-N individuals are predisposed to negative affect and maladaptive coping, they can learn more adaptive coping responses through education.

One of the main interests of this research was to go beyond a convenience sample at the University. I wanted to learn more about the veteran population. I often was met with skepticism, distrust, and resistance. I was asked such questions as, "Is this going to make the military look bad?" "Are you a journalist?" "Are you going to use this against me?" and "You don't have a tape recorder in your purse, do you?". Some veterans would not help me on paper but were willing to talk with me. This is how I found out the issues facing military veterans who suffer from psychological trauma. They believe revealing aspects of post-traumatic stress will nullify their ability to perform in the military. The stigma of divulging information regarding one's

psyche is very much taboo in the veteran population. The concern of troops losing rank because of psychological harm from trauma is a very real issue. This research asked 35 veterans about PTSD. Many had been tested, only 2 had been diagnosed. An ever present concern for research using self-report is whether or not participants are providing completely truthful answers. On the other hand, if pursuit of knowledge stops because a few answers are not completely truthful, we may not end up with any answers at all. Recruiting veterans for this study was not only difficult; it was mentally and physically exhausting. As Dr. Frederickson so eloquently stated, it was like "trying to herd cats" (personal communication, March 15, 2008). This aspect was much different from the ease of having University students sit for a study.

My research was not without its glories. I was very fortunate to talk with Colonel Pendleton Woods (who is in his 80s!), a prisoner of war in south Berlin in World War II. Our meeting was an accident because I was at the wrong address. Colonel Woods spoke to me about being a prisoner of war and gave me priceless amounts of insight into military psychology and the differences between Communist and American prisons. He wrote a manuscript about it, called, "A Tale of Two Prisons" (personal interview, November 13, 2009) (see Appendix H). I am including this contact in my thesis because it is an excellent story of the human capacity for resilience amidst a traumatic experience.

While doing this project, I came to understand and appreciate the labor of true, heartfelt research. It showed me how hard it is to do psychological science. It also showed me how rewarding it can be when we step out into fields in search of people who will help us look for answers. As the elders in my culture say, "The harvest is plentiful indeed, but the laborers are few."

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Appendix A

Informed Consent Form – Research Participation

Understanding Outcomes of Traumatic Experiences: Roles of Personality and Coping

Investigators:

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Purpose of the Study

We are interested in the coping styles and personalities of those who have endured and overcome stressful or life-threatening situations.

Procedures involved in the Research

You will be shown several questionnaires. The COPE Inventory asks you to indicate what you generally do and feel when you experience stressful events. Obviously, different events bring out somewhat different responses, but think about what you usually do when you are under a lot of stress.

The NEO PI-R is to assess different elements of your personality. Everyone has a different personality. There is no "right" or "wrong" personality. Please answer the questions as they truly apply to you, not what you think someone would WANT you to be.

The traumatic experiences questionnaire assesses the presence or absence of stressful or threatening life experiences. Some questions are very personal and sensitive. If any of them make you uncomfortable, you may decline to answer. Please be assured that your information will remain strictly confidential and private. Please answer the items as accurately as possible.

The last section of questions asks whether or not you participated in therapeutic wellness as a result of being exposed to significant life stressors. The questions ask what type of therapy you had and whether or not you felt benefited by therapy.

Potential Harms, Risks or Discomforts:

It is not likely that there will be any harm associated with the questionnaires. Some of the questions, however, may be considered personal or sensitive. You have a right to refuse answering any question and if it results in stress, you may contact the University of Central Oklahoma Counseling Center.

UCO Counseling Center Nigh University Center Suite 402 405-974-2215

Potential Benefits

We hope to learn more about the coping and personality types of those who have overcome stressful life situations as a result of life stressors. The research may not benefit you directly.

Confidentiality:

Anything that you say or do in the study will not be shared with anyone outside of the researchers affiliated with this project. At no time will your name or identifying information be connected with your responses to the surveys, questionnaires, or demographic information outside of the Sona-System. Your name will not be downloaded and stored, as your privacy will be respected. We will not be asking you to provide your name or any personal information excluding age and gender. The information obtained online will be kept in a locked cabinet on campus in care of Dr. Knight, and will only be made available to researchers listed above and members of the research team and qualifying authorities for verification of research participant authenticity. The data will be reported in aggregate form and be destroyed at the end of this study.

Exclusion from participation:

By signing below, you are affirming that you are NOT:

- 1) Under 18 years of age
- 2) Over 65 years of age
- 3) Pregnant or recovering from childbirth
- 4) Suffering or recovering from a terminal phase of illness

Participation:

Your participation in this study is voluntary. It is your choice to be part of the study or not. If you decide to participate, you can decide to stop at any time without penalty. If you decide to stop participating, there will be no consequences to you. If you do not want to answer some of the questions you do not have to, but you can still be in the study. Your decision whether or not to participate will not affect your continuing access to research participation at the University of Central Oklahoma or your participation credit for a course.

Information about the Study Results:

Results of the study can be obtained by contacting the primary researcher by email after December 20, 2009.

Information about Participating as a Study Subject:

If you have questions or require more information about the study itself, please contact Elizabeth Peters or Dr. Mike Knight. If you have concerns or questions about your rights as a participant or about the manner in which the study is conducted, you may contact:

Dr. Jill Devenport Office of Research and Grants ADM 216 Campus Box 159 Edmond, OK 73034-5209 Telephone: (405) 974-2526

C/o UCO Institutional Review Board

Affirmation of Research Subject

I hereby voluntarily agree to participate in the above listed research project and further understand the above listed explanations and descriptions of the research project. I also understand that there is no penalty for refusal to participate, and that I am free to withdraw my consent and participation in this project at any time without penalty. I have read and fully understand this Informed Consent Form. I affirm that I am 18 years of age or older.

By clicking continue, I hereby understand and agree to the conditions of the above listed research project and the Affirmation Statement. Before continuing to this online survey, I will print this page or copy and save this Informed Consent Form in a word document for my own records.

Appendix B

Informed Consent Form – Research Participation

Understanding Outcomes of Traumatic Experiences: Roles of Coping and Personality

Investigators:

Student / Elizabeth Peters Primary Investigator: (405) 315-7234

epeters@uco.edu

Research Sponsor: Dr. Mike Knight

(405) 974-5707 mknight@uco.edu

Purpose of the Study

We are interested in the coping styles and personalities of those who have endured and overcome stressful or life-threatening situations.

Procedures involved in the Research

You will be shown several questionnaires. The COPE Inventory asks you to indicate what you generally do and feel when you experience stressful events. Obviously, different events bring out somewhat different responses, but think about what you usually do when you are under a lot of stress.

The Personality Inventory is to assess different elements of your personality. Everyone has a different personality. There is no "right" or "wrong" personality. Please answer the questions as they truly apply to you, not what you think someone would WANT you to be.

The traumatic experiences questionnaire assesses the presence or absence of stressful or threatening life experiences. Some questions are very personal and sensitive. If any of them make you uncomfortable, you may decline to answer. Please be assured that your information will remain strictly confidential and private. Please answer the items as accurately as possible.

Potential Harms, Risks or Discomforts:

It is not likely that there will be any harms or discomforts associated with the questionnaire. Some of the questions, however, may be considered personal or sensitive. You have a right to refuse answering any question and if it results in stress, you may contact the

U.S. Department of Veteran Affairs Mental Health Organization 921 N.E. 13th Street OKC, OK 73104

Phone: (405) 456-1000

For emergency emotional crisis, call: 1 800-273-TALK

Potential Benefits

We hope to learn more about the coping and personality types of those who overcome stressful life situations as a result of life stressors. The research may not benefit you directly.

Confidentiality:

Anything that you say or do in the study will not be shared with anyone outside of the researchers and assistants affiliated with this project. At no time will your name or identifying information be connected with your responses to the surveys, questionnaires, or demographic information. Your name will not be downloaded and stored, as your privacy will be respected. We will not be asking you to provide your name or any personal information excluding age and gender. The information obtained will be kept in a locked cabinet on campus in care of Dr. Knight, and will only be made available to researchers listed above and members of the research team and qualifying authorities for verification of research participant authenticity. The data will be reported in aggregate form and be destroyed at the end of this study.

Exclusion from participation:

By signing below, you are affirming that you are NOT:

- 5) Under 18 years of age
- 6) Over 65 years of age
- 7) Pregnant or recovering from childbirth
- 8) Suffering or recovering from a terminal phase of illness

Participation:

Your participation in this study is voluntary. It is your choice to be part of the study or not. If you decide to participate, you can decide to stop at any time without penalty. If you decide to stop participating, there will be no consequences to you. If you do not want to answer some of the questions you do not have to, but you can still be in the study.

Information about the Study Results:

Results of the study can be obtained by contacting the primary researcher by email after December 20, 2009.

Information about Participating as a Study Subject:

If you have questions or require more information about the study itself, please contact Elizabeth Peters or Dr. Mike Knight. If you have concerns or questions about your rights as a participant or about the manner in which the study is conducted, you may contact:

Dr. Jill Devenport
Office of Research and Grants
ADM 216
Campus Box 159
Edmond, OK 73034-5209
Telephone: (405) 974-2526
C/o Institutional Review Board

Affirmation of Research Subject

I hereby voluntarily agree to participate in the above listed research project and further understand the above listed explanations and descriptions of the research project. I also understand that there is no penalty for refusal to participate, and that I am free to withdraw my consent and participation in this project at any time without penalty. I have read and fully understand this Informed Consent Form. I affirm that I am 18 years of age or older.

By signing below, I hereby understand and agree to the conditions of the above listed research project and
the Affirmation Statement. Before continuing to the survey, I will keep this form or copy and save this
Informed Consent Form in a word document for my own records.

Signed by:	Date
•	

Appendix C

The following questions are designed to determine if you should be excluded from participating in this study. These elements were also covered in the informed consent form. If you answer 'no' to the following questions, please continue the survey. If you answer 'yes' to any of these questions, please exit this study and do not continue to answer any questions. Thank you for your cooperation.

1. Are you under the age of 18?

Yes No

2. Are you over the age of 65?

Yes No

3. Are you suffering from a terminal illness?

Yes No

4. Are you recovering from a terminal illness?

Yes No

Appendix D

COPE Inventory

We are interested in how people respond when they confront difficult or stressful events in their lives. There are lots of ways to try to deal with stress. This questionnaire asks you to indicate what you generally do and feel, when you experience stressful events. Obviously, different events bring out somewhat different responses, but think about what you usually do when you are under a lot of stress.

Then respond to each of the following items by blackening one number on your answer sheet for each, using the response choices listed just below. Please try to respond to each item separately in your mind from each other item. Choose your answers thoughtfully, and make your answers as true FOR YOU as you can. Please answer every item. There are no "right" or "wrong" answers, so choose the most accurate answer for YOU--not what you think "most people" would say or do. Indicate what YOU usually do when YOU experience a stressful event.

- 1 = I usually don't do this at all
- 2 = I usually do this a little bit
- 3 = I usually do this a medium amount
- 4 = I usually do this a lot
- 1. I try to grow as a person as a result of the experience.
- 2. I turn to work or other substitute activities to take my mind off things.
- 3. I get upset and let my emotions out.
- 4. I try to get advice from someone about what to do.
- 5. I concentrate my efforts on doing something about it.
- 6. I say to myself "this isn't real."
- 7. I put my trust in God.
- 8. I laugh about the situation.
- 9. I admit to myself that I can't deal with it, and quit trying.
- 10. I restrain myself from doing anything too quickly.
- 11. I discuss my feelings with someone.
- 12. I use alcohol or drugs to make myself feel better.
- 13. I get used to the idea that it happened.
- 14. I talk to someone to find out more about the situation.
- 15. I keep myself from getting distracted by other thoughts or activities.
- 16. I daydream about things other than this.
- 17. I get upset, and am really aware of it.
- 18. I seek God's help.
- 19. I make a plan of action.
- 20. I make jokes about it.
- 21. I accept that this has happened and that it can't be changed.
- 22. I hold off doing anything about it until the situation permits.

- 23. I try to get emotional support from friends or relatives.
- 24. I just give up trying to reach my goal.
- 25. I take additional action to try to get rid of the problem.
- 26. I try to lose myself for a while by drinking alcohol or taking drugs.
- 27. I refuse to believe that it has happened.
- 28. I let my feelings out.
- 29. I try to see it in a different light, to make it seem more positive.
- 30. I talk to someone who could do something concrete about the problem.
- 31. I sleep more than usual.
- 32. I try to come up with a strategy about what to do.
- 33. I focus on dealing with this problem, and if necessary let other things slide a little.
- 34. I get sympathy and understanding from someone.
- 35. I drink alcohol or take drugs, in order to think about it less.
- 36. I kid around about it.
- 37. I give up the attempt to get what I want.
- 38. I look for something good in what is happening.
- 39. I think about how I might best handle the problem.
- 40. I pretend that it hasn't really happened.
- 41. I make sure not to make matters worse by acting too soon.
- 42. I try hard to prevent other things from interfering with my efforts at dealing with this.
- 43. I go to movies or watch TV, to think about it less.
- 44. I accept the reality of the fact that it happened.
- 45. I ask people who have had similar experiences what they did.
- 46. I feel a lot of emotional distress and I find myself expressing those feelings a lot.
- 47. I take direct action to get around the problem.
- 48. I try to find comfort in my religion.
- 49. I force myself to wait for the right time to do something.
- 50. I make fun of the situation.
- 51. I reduce the amount of effort I'm putting into solving the problem.
- 52. I talk to someone about how I feel.
- 53. I use alcohol or drugs to help me get through it.
- 54. I learn to live with it.
- 55. I put aside other activities in order to concentrate on this.
- 56. I think hard about what steps to take.
- 57. I act as though it hasn't even happened.
- 58. I do what has to be done, one step at a time.
- 59. I learn something from the experience.
- 60. I pray more than usual.

COPE Scales

Scales (sum items listed, with no reversals of coding):

Positive reinterpretation and growth: 1, 29, 38, 59

Mental disengagement: 2, 16, 31, 43

Focus on and venting of emotions: 3, 17, 28, 46 Use of instrumental social support: 4, 14, 30, 45

Active coping: 5, 25, 47, 58

Denial: 6, 27, 40, 57

Religious coping: 7, 18, 48, 60

Humor: 8, 20, 36, 50

Behavioral disengagement: 9, 24, 37, 51

Restraint: 10, 22, 41, 49

Use of emotional social support: 11, 23, 34, 52

Substance use: 12, 26, 35, 53 Acceptance: 13, 21, 44, 54

Suppression of competing activities: 15, 33, 42, 55

Planning: 19, 32, 39, 56

Appendix E

NEO PI-R: Likert scaling; SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly Agree

Neuroticism items are bolded/highlighted.

1. I am not a worrier.

- 2. I like to have a lot of people around me.
- 3. I don't like to waste time daydreaming.
- 4. I try to be courteous to everyone I meet.
- 5. I keep my belongings clean and neat.

6. I often feel inferior to others.

- 7. I laugh easily.
- 8. Once I find the right way to do something, I stick to it.
- 9. I often get into arguments with my family and coworkers.
- 10. I'm pretty good about pacing myself so as to get things done on time.

11. When I'm under a great deal of stress, sometimes I feel like I'm going to pieces.

- 12. I don't consider myself especially "light-hearted."
- 13. I am intrigued by patterns I find in art and nature.
- 14. Some people think I'm selfish and egotistical.
- 15. I am not a very methodical person.

16. I rarely feel lonely or blue.

- 17. I really enjoy talking to people.
- 18. I believe letting students hear controversial speakers can only confuse and mislead them.
- 19. I would rather cooperate with others than compete with them.
- 20. I try to perform all the tasks assigned to me conscientiously.

21. I often feel tense and jittery.

- 22. I like to be where the action is.
- 23. Poetry has little or no effect on me.
- 24. I tend to be cynical and skeptical of other's intentions.
- 25. I have a clear set of goals and work toward them in an orderly fashion.

26. Sometimes I feel completely worthless.

- 27. I usually prefer to do things alone.
- 28. I often try new and foreign foods.
- 29. I believe that most people will take advantage of you if you let them.
- 30. I waste a lot of time before settling down to work.

31. I rarely feel fearful or anxious.

- 32. I often feel as if I'm bursting with energy.
- 33. I seldom notice the moods or feelings that different environments produce.
- 34. Most people I know like me.
- 35. I work hard to accomplish my goals.

36. I often get angry at the way people treat me.

- 37. I am a cheerful, high-spirited person.
- 38. I believe we should look to our religious authorities for decisions on moral issues.
- 39. Some people think of me as cold and calculating.
- 40. When I make a commitment, I can always be counted on to follow through.

41. Too often, when things go wrong, I get discouraged and feel like giving up.

- 42. I am not a cheerful optimist.
- 43. Sometimes when I am reading poetry or looking at a work of art, I feel a chill or wave of excitement.
- 44. I'm hard-headed and tough-minded in my attitudes.
- 45. Sometimes I'm not as dependable or reliable as I should be.

46. I am seldom sad or depressed.

- 47. My life is fast-paced.
- 48. I have little interest in speculating on the nature of the universe or the human condition.
- 49. I generally try to be thoughtful and considerate.
- 50. I am a productive person who always gets the job done.

51. I often feel helpless and want someone else to solve my problems.

- 52. I am a very active person.
- 53. I have a lot of intellectual curiosity.
- 54. If I don't like people, I let them know it.
- 55. I never seem to be able to get organized.

56. At times I have been so ashamed I just wanted to hide.

- 57. I would rather go my own way than be a leader of others.
- 58. I often enjoy playing with theories or abstract ideas.
- 59. If necessary, I am willing to manipulate people to get what I want.
- 60. I strive for excellence in everything I do.

Appendix F

Traumatic Experiences Questionnaire

_		Yes	No	
2.	If yes, did you feel as if your life or someone else's life was threatened?	Yes	No	N/A
3.	Have you ever been involved in a catastrophic natural disaster?	Yes	No	
4.	If yes, did you feel as if your life or someone else's life was threatened?	Yes	No	N/A
5.	Has anyone close to you died unexpectedly or violently?	Yes	No	
6.	Have you ever been in a combat situation while serving in the military?	Yes	No	
7.	Have you ever been tested for PTSD?	Yes	No	
8.	Have you ever been diagnosed with PTSD?	Yes	No	
9.	Are you a U.S. military veteran?	Yes	No	
the eve	have had a traumatic experience that has not been asked already, please bent if you felt as if your life or someone else's life was in danger.			ioc
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Appendix G

Therapy Index

- 1. Did you ever seek treatment/therapy for the traumatic life event?
 - A. Yes
 - B. No
 - C. Not applicable
- 2. What type of treatment/therapy?
 - A. Group sessions
 - B. Relaxation Sessions
 - C. Client-centered counseling sessions
 - D. Spiritual direction
 - E. AA/NA Program
 - F. Eye-Movement Desensitization and Reprocessing
 - G. Cognitive Based-Therapy (CBT)
 - H. Other
 - I. I did not seek treatment/therapy.
 - J. Not applicable
- 3. How long did you stay in treatment/therapy?
 - A. 0-3 months
 - B. 4-6 months
 - C. 6-9 months
 - D. 9 months 12 months
 - E. + 12 months
 - F. I did not seek treatment/therapy.
 - G. Not applicable
- 4. In general, how do you feel now compared to when you started treatment/therapy?
 - A. Much better
 - B. Better
 - C. The same
 - D. Worse
 - E. I did not seek treatment/therapy.
 - F. Not applicable
- 5. If you could make a comment regarding treatment/therapy, what would you say? (e.g., I would have liked more spiritual guidance, I would like to have had an anger management class, I would have liked one-on-one counseling instead of group sessions.) *(Free response)*

Appendix H

Alvisoners of Mar

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A Tale of Two Prisons

By COL Pendleton Woods
Oklahoma Chapter

Iffty years ago, I unwillingly joined a group of Americans and other allies in taking on a new title, prisoner of war. It was a traumatic period in my life, just as it was with my companions, who shared cold, hunger, misery, and sometimes periods of helplessness and hopelessness. But it was the most significant learning period of my life.

For one thing, we learned what hunger really is. Until I became a prisoner, I had thought hunger was that gnawing feeling in the pit of the stomach when a meal is two or three hours overdue. Not so! True hunger isn't in the stomach. The stomach has shrunk, and what is left is filled with liquid. Hunger is in the blood, which means it is all over your body. It is in the tips of your fingers. It is in your toes. It is everywhere that the blood circulates. Your stomach is not the center of hunger, for the entire body craves food.

Another thing we learned was how to live with one another under highly difficult situations, and how

to share with one another when we had very little to share. I remember a night in a city jail in the town of Duren, near the Belgian border, when seven of us Americans who had been surrounded by an infantry company while on a reconnaissance patrol behind the German lines, were locked up together.

The night was 12 December 1944, and it was extremely cold. The cell in which we were locked had no heat, and no glass windows—only iron bars covering an outside window opening. There were seven of us from our reconnaissance patrol, along with a British bombardier who had bailed out over Germany when his plane was downed.

Between the eight of us, we had only one blanket to protect us from the cold. We sat in the middle of the

room with our shoes off and our feet shoved together in the center. Our bodies were spread out from the center like a wagon wheel. Our one blanket was in the middle, covering our feet and lower legs, as we tried to hold our body warmth intact. For 48 hours we sat in this manner, relating experiences, telling stories, and even playing round-robin games.

I remember 21 December 1944, the shortest day and the longest night of the year, and, I am certain, the coldest. I was in a $40^{\circ} \times 8^{\circ}$ boxcar somewhere near Frankfurt. We had been in the boxcar for four days, traveling only a few miles at a time, then pulling off on a siding, in order that the main track could be kept open for

German troop movements. Again, there were no windows—only the air conditioning provided by air holes high in the boxcar. Therewere at least a hundred prisoners in this boxcar, designed for 40 men or eight horses. But the crowded condition had the advantage of providing more body heat, even though it was quickly dissipated through the holes.

In this situation, I learned how to preserve warmth. Most of us had selected partners to share our misery. My mate and I removed our shoes, shoving our feet beneath each other's shirt and under the armpits. By lying in this manner for hours, we could keep from freezing. It was in this boxcar

that I celebrated my 21st birthday.

But of all my prison memories, there was nothing to equal Stalag XII-A near Limberg, Germany. When, after six days in a freezing boxcar we arrived at the Limberg station, we all agreed that nothing we could ever experience would be worse than that boxcar. But we were absolutely wrong. Limberg was the worst of all time.

Our prison building had a large open room the size of a gymnasium, but we were so crowded that we could not all lie down at one time without lying crisscross over one another. Our latrine was in an adjacent room, and we had to crawl over each other in order to get there. But using the latrine was of little value. The drain pipes were frozen, we all were suffering diarrhea, and our liquid waste flowed from the latrine into the large



prison compound where we were living and sleeping.

Then, the night before Christmas Eve, came the next big blow. We were bombed. The Americans were attacking during the daytime and the British at night, using advance flares as markers. Their intended target was the German air base adjacent to our prison. But when we had flares in both directions, we knew that they had misjudged their target and we would be hit.

Within moments, the bombs fell. When it was over, there was not a window left in our building. Forty American prisoners were killed. The building next to ours received a direct hit. The bodies of the dead and

injured were being removed from the building all Christmas day.

The Christmas spirit was not completely dead, however. Someone in our prison barracks had tied bits of scrap colored paper and rags to a dead limb to simulate a Christmas tree. Then, at a distance from another compound, I heard a group of GIs singing the best known of all Christmas hymns, "Silent Night." Soon others took it up, and before I knew it, I could hear from all over the compound the words and melody of "Silent Night, Holy Night, All is Calm, All is Bright..." There was no Christmas feast, hardly any food at all. But this is the way we celebrated the Christmas of 1944.

A week or so later, I was trucked with other prisoners to Stalag III-A in Luchenwalde. There, for the first time, we had bunks for sleeping. Two men would share a single box, with one blanket between them. Once again, we shared each other's body heat. We also shared each other's lice, however, as we were all infested by that time.

Our daily ration in the morning consisted of what the guards called coffee (I think it was boiled wood). At lunch, we each had one-third of a canteen cup filled with boiled colorabas—a kind of overgrown rutabaga. For our evening meal, we had one loaf of German bread to be divided between 10 men. It is hard to imagine a group of men talking about food all day long, but we did ... and we dreamed about food all night.

Privates were often sent to forced labor camps, and, as a private first class, I was susceptible. It was late in January when I was pulled out of Stalag III-A and sent to a small depot near Juderbog, where we were required to work under guard.

It was on 20 April 1945—Adolf Hitler's birthday—that the guards came into our prison compound bringing digging utensils. They told us that Russians were approaching and we would be under artillery fire within a few hours. They didn't have to tell us to start digging.

The artillery did come soon, and shortly after dark

we knew that a fence in our depot had been destroyed. We decided to take off to try to reach American lines.

Walking cross-country and sleeping in fields and barns, we reached the Elbe River and an American division five days later, and our prison ordeal was over.

What was it that made us determined to survive? Faith in God was certainly one of the reasons. But another was the fact that we had lived in a free society. Even though we had lost our freedom for the time, we had faith that we would someday be liberated, and that when we returned home we would again be living free.

Our German captors did everything possible to

prevent us from organizing our own leadership within the prison. Officers were segregated from enlisted men, and sergeants and corporals were separated from privates. But it didn't work. Wherever we went, we selected our own leaders, and for the most part, people worked together and shared. Even though we were imprisoned, we tried to live among each other in a democratic way.

Five years later, however, I experienced another prison camp. This time I was on the outside, and not one of the prisoners. The things I saw and heard in a two-day period at this prison, however, were almost as traumatic as my own prison experience. The place was Koje Island, offshore from Pusan in southern Korea.

Those who lived in the period of the Korean War





remember reading of the riots in the prison camp that incarcerated Chinese and North Korean communist prisoners. The stories pointed out that the prisoners held kangaroo courts within the compounds and issued punishment to their fellow inmates, ranging from beatings to execution.

How this came about was because our army had not expanded its prisons quickly enough and allowed too many POWs to congregate in a single compound. By sheer numbers, the prisoners took over, honing eating utensils into sharp knives to administer punishment. In

the end, American tanks and troops stormed the compounds to regain control and stop the killing.

I was then with the 45th Infantry Division on the western side of the peninsula. As division public information officer, published a weekly newspaper, and I made it a point to go to Koje Island to learn what was happening.

I was outside the prison compound shortly before dark. Our own guards were again in control as far as preventing killing and torturing. The weapons the Chinese had made from mess utensils, as well as any other items of destruction, had been removed; however, the prisoners were moving into the large open area of the compound for a night-

ly demonstration. It was almost like a giant football pep rally. A leader stood on a large box to act as the cheer-leader. He started a chant. It was repeated by a group of secondary leaders. Then there was a loud roar from the entire compound of prisoners.

The chants were in Chinese. I watched from a hill-side above, standing beside a South Korean soldier who spoke Chinese. As each yell was repeated, I asked my neighbor what was being said. The first yell was "Down with the American imperialists!" Then, "Down with capitalism!" Next, "Hail to the communist revolution!" And finally, "Hail to Mao Tse Tung!" It was a long and impressive ceremony, with all prisoners participating.

I spent the night on Koje Island, and the next morning I went back to the compound. This time everything was quiet within the prison, but on the outside I saw a platoon of American soldiers digging holes with shovels and picks. Nearby were at least a hundred other former holes that had been filled with fresh dirt. I walked down to see what was happening. I learned that they were digging graves for the hundreds of Chinese who had been killed by their fellow prisoners.

Nearby was a large tent. I asked what it was for I was taken to the tent and saw something more traumat-

ic than anything I had ever witnessed before. Within the tent, each wrapped in a canvas shelter-half and packed closely together, were scores of bodies of Chinese soldiers. They were not killed by their Korean captors. They had been murdered by their own féllow prisoners. Why? Perhaps they had not repeated the communist line, or maybe not loud enough. Perhaps they had expressed opinions contrary to the teachings of communism or Mao Tse Tung. Perhaps they had the audacity to speak out for human freedom. Or maybe they refused to participate in a demonstration such as the one I had seen the night before.

There is a strange thing about seeing the bodies of the dead. When you

see one or two, you can relate to the human life that once lay within. When you see scores of remains, as those in war sometimes do, it becomes harder to visualize them as individuals. But I had no problem relating to those 250 to 300 bodies I saw and smelled within that tent.

I removed my helmet and bowed my head, because I realized that these were my kind of people. They had stood for freedom and for something better than the brutality that an evil and corrupt system had instilled in their fellow prisoners. As I looked at the bodies, I said to myself, "Those men are heroes. They would have made great Americans."

Table 2
Means and Standard Deviations for Mental Disengagement

Neuroticism Range		Mean	Standard Deviation
High-N	Vet	9.90	2.51
	Nonvet	10.95	2.35
Low-N	Vet	7.21	2.04
	Nonvet	8.92	1.32

Table 3
Means and Standard Deviations for Behavioral Disengagement

Neuroticism Range		Mean	Standard Deviation
High-N	Vet	7.00	2.26
	Nonvet	7.10	2.12
Low-N	Vet	4.92	1.33
	Nonvet	5.31	1.32

Table 4 *Means and Standard Deviations for Humor*

Neuroticism Range		Mean	Standard Deviation
High-N	Vet	8.10	2.92
	Nonvet	10.85	3.80
Low-N	Vet	10.07	4.25
	Nonvet	11.84	2.76

Table 5 *Means and Standard Deviations for Denial*

Neuroticism Range		Mean	Standard Deviation
High-N	Vet	6.60	1.96
	Nonvet	6.20	2.21
Low-N	Vet	4.93	1.14
	Nonvet	4.69	1.31

Table 6
Means and Standard Deviations for Substance Use

Neuroticism Range		Mean	Standard Deviation
High-N	Vet	7.90	4.58
	Nonvet	7.00	3.36
Low-N	Vet	5.00	2.66
	Nonvet	4.85	1.72

Table 7
Means and Standard Deviations for Focusing on and Venting Emotions

Neuroticism Range		Mean	Standard Deviation
High-N	Vet	9.70	2.83
	Nonvet	9.70	2.05
Low-N	Vet	6.21	2.29
	Nonvet	7.15	2.12

Table 8
Means and Standard Deviations for Positive Reinterpretation and Growth

Neuroticism Range		Mean	Standard Deviation
High-N	Vet	11.9	3.03
	Nonvet	11.5	2.74
Low-N	Vet	14.21	1.31
	Nonvet	14.38	1.76

Table 9
Means and Standard Deviations for Planning

Neuroticism Range		Mean	Standard Deviation
High-N	Vet	10.7	1.94
	Nonvet	11.75	2.57
Low-N	Vet	13.93	2.92
	Nonvet	13.08	2.40

Table 10
Means and Standard Deviations for Therapy Seeking

Neuroticism Range		Mean	Standard Deviation
High-N	Vet	.70	.950
	Nonvet	1.50	1.43
Low-N	Vet	.071	.267
	Nonvet	1.15	1.34

Figure 1. Mean scores for Mental Disengagement as a coping mechanism between High-N, Low-N and Vet, Nonvet

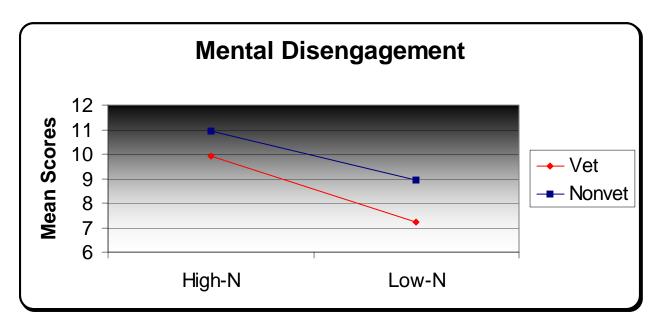


Figure 2. Mean scores for Behavioral Disengagement as a coping mechanism between High-N, Low-N and Vet, Nonvet

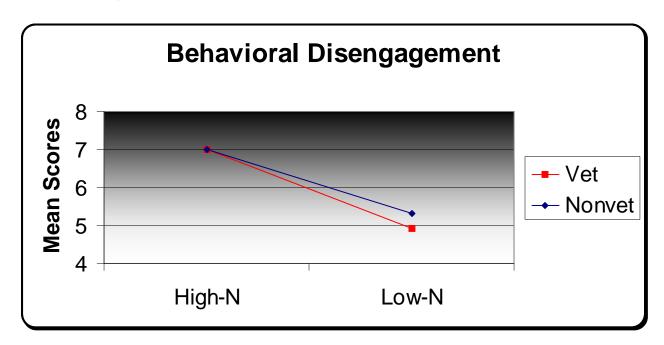


Figure 3. Mean scores for humor as a coping mechanism between High-N, Low-N and Vet, Nonvet

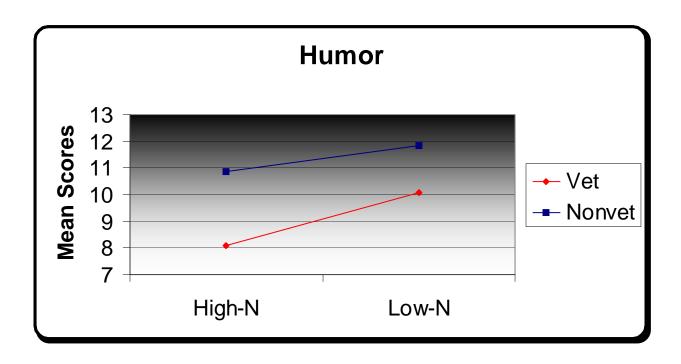


Figure 4. Mean scores for Denial as a coping mechanism between High-N, Low-N and Vet, Nonvet

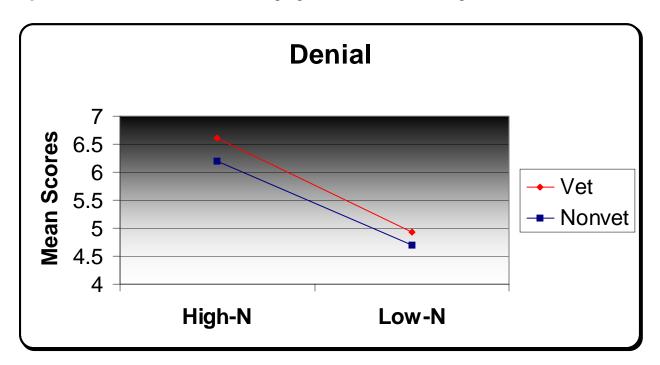


Figure 5. Mean scores for Substance Use as a coping mechanism between High-N, Low-N and Vet, Nonvet

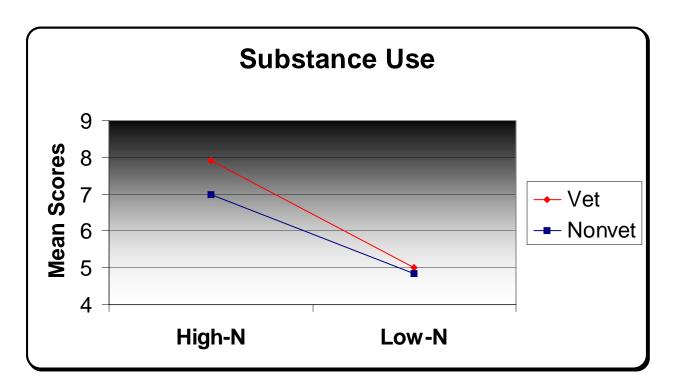


Figure 6. Mean scores for Focusing on and Venting Emotions as a coping mechanism between High-N, Low-N, and Vet, Nonvet

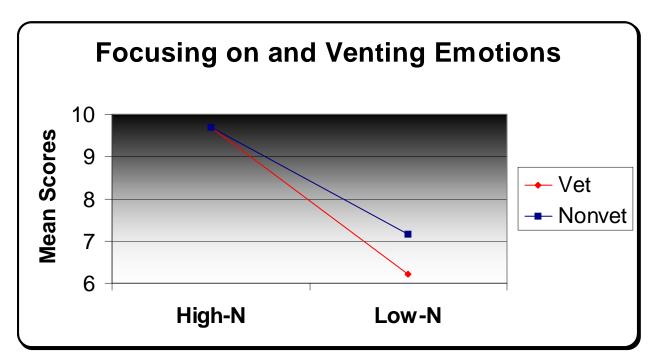


Figure 7. Mean scores for Positive Reinterpretation and Growth between High-N, Low-N and Vet, Nonvet

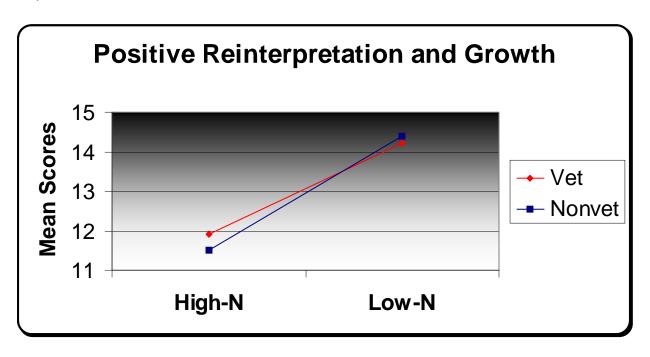


Figure 8. Mean scores for Planning as a coping mechanism between High-N, Low-N and Vet, Nonvet

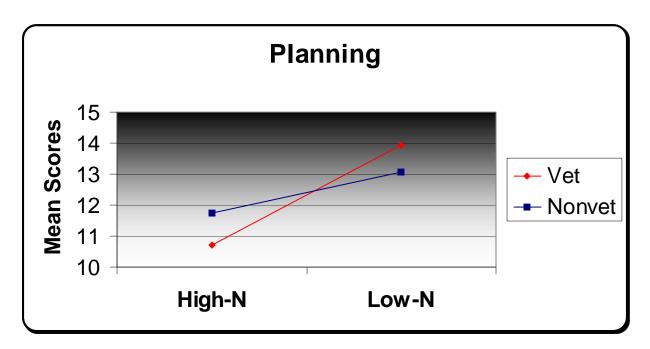


Figure 9. Mean scores for therapy seeking after a traumatic experience between High-N, Low-N and Vet, Nonvet

