

2016

The Relationship Between Empathy and Humor Styles and Secondary Traumatic Stress in the Public Mental Health Workplace

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Running head: EMPATHY HUMOR AND SECONDARY TRAUMATIC STRESS

THE RELATIONSHIP BETWEEN EMPATHY AND HUMOR STYLES AND SECONDARY
TRAUMATIC STRESS IN THE PUBLIC MENTAL HEALTH WORKPLACE

A dissertation presented to the faculty of
ANTIOCH UNIVERSITY SANTA BARBARA

In partial fulfillment of the requirements
for the degree of

DOCTOR OF PSYCHOLOGY
in
CLINICAL PSYCHOLOGY

By

Michelle Greenspoon Barrett, MA

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This dissertation, by Michelle Greenspoon Barrett, MA, has been approved by the committee members signed below who recommend that it be accepted by the faculty of Antioch University Santa Barbara in partial fulfillment of requirements for the degree of

DOCTOR OF PSYCHOLOGY

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EMPATHY HUMOR AND SECONDARY TRAUMATIC STRESS

ABSTRACT

The purpose of this study was to determine if there is a relationship between both empathy type and humor type to secondary traumatic stress in individuals who work in a public mental healthcare setting. Empathy type was divided into four subcategories: Perspective Taking, Fantasy-type, Empathic Concern, and Personal Distress. Similarly, humor type was divided into four subcategories: Affiliative, Self-Enhancing, Aggressive, and Self-Defeating. Clinical and non-clinical staff at the Alcohol, Drug, and Mental Health Services department of Santa Barbara County, California participated in an online survey. The survey consisted of a sociodemographic questionnaire, as well as questionnaires related to humor, empathy, and secondary traumatic stress. Non-clinical staff was more likely to endorse STS and to report significantly higher scores Personal Distress Empathy scale, in comparison to clinical staff. Further, a significant relationship was found in both clinical and non-clinical workers to Perspective Taking and Fantasy-type Empathy. Finally, both clinical and non-clinical staff who endorsed significantly higher STS were also more likely endorse higher scores on Self-Defeating and Self-Enhancing Humor scales. Results showed that non-clinicians were more likely to report psychological distress than their clinical counterparts. Further, humor related to oneself was likely to be indicative of STS, as were the cognitive empathy types. The electronic version of this dissertation is available free at Ohiolink ETD Center, www.ohiolink.edu/etd.

ACKNOWLEDGMENTS

I am extremely grateful for the support of my family, friends, and dissertation committee members. I would like to thank my husband, Scott Barrett, for his love, kindness, and patience as I completed this dissertation manuscript. My parents and friends also provided me with tremendous support throughout this process. Thank you for being my cheerleaders. Finally, I would like to thank each of my committee members: Dr. Sharleen O'Brien, Dr. Brett Kia-Keating, and Dr. Thomas Eby, who committed tremendous time and energy to guiding me throughout this project. Thank you all, I could not have completed this manuscript without you.

TABLE OF CONTENTS

List of Tables.....	viii
List of Figures.....	ix
CHAPTER I: Background and rationale for the study	
Introduction and background.....	1
Scope of the study.....	7
CHAPTER II: Review of the literature	
Literature review.....	9
Coping strategies.....	9
Humor.....	13
Empathy.....	22
Secondary traumatic stress.....	25
Research questions.....	30
Research hypothesis.....	31
CHAPTER III: Research design and methodology	
Research design.....	33
Participants.....	34
Measurements.....	35
Empathy.....	35
Humor.....	35
Secondary traumatic stress.....	36
Sociodemographic questionnaire.....	36
Data collection.....	36
Data analysis procedures.....	36
Research question one.....	37
Research question two.....	37
Research question three.....	38
Research question four.....	38
CHAPTER IV: Results	
Sample selection and characteristics.....	40
Data analysis.....	40
Answering the research questions.....	43
CHAPTER V: Discussion and conclusions	
Summary of findings.....	45
Implications and consistency of findings.....	45
Limitations and future research.....	46
Conclusions.....	47
REFERENCES.....	50

EMPATHY HUMOR AND SECONDARY TRAUMATIC STRESS

APPENDICES

Appendix A: Approval from ADMHS.....	66
Appendix B: Informed consent form.....	67
Appendix C: Correlations Matrix.....	70

LIST OF TABLES

Table 1. *Comparative Definitions of Trauma Concepts*.....28

Table 2. *Correlation Matrix*.....Appendix C

Table 3. *Full Multiple Regression Model*.....41

LIST OF FIGURES

Figure 1. *The two-dimensional model of humor styles assessed by the Humor Styles Questionnaire*.....16

CHAPTER I: BACKGROUND AND RATIONALE FOR THE STUDY

Introduction and Background

“If I couldn’t make jokes, I swear I would eat my gun one day.”

Anonymous Santa Barbara County Law Enforcement Agent (personal correspondence, 2013)

Emergency services professionals have jobs that are characterized by consistently high levels of stress (Rowe & Regehr, 2010). Physicians, nurses, and other health care professionals in the emergency services community and in hospital-based emergency settings are faced, on a daily basis, with exposure to a multitude of death, injury, and danger. In addition to the training that emergency professionals receive on the job, often individuals who choose these jobs inherently share personality traits that protect against stress and distress (Regehr, Hill, & Glancy, 2000; Shakespeare-Finch, Gow, & Smith, 2005; Waysman, Schwarzwald, & Solomon, 2001).

In spite of these inherent traits, emergency service professionals can suffer the toll of exposure to stress, specifically trauma responses. Events that involve any threat of actual death or injury to oneself or others, and produce profound changes to human arousal, emotion, cognition and memory are considered traumatic (Herman, 1992). Individuals exposed to traumatic stressors have reported adverse physical health outcomes as well as alterations of psychological, biological, and social equilibrium (van der Kolk & Fislser, 1995). Previous research reveals that exposure to trauma can have a significantly negative impact on an individual’s well being (Grevin, 1996). In 2005, Johnson and colleagues compared 26 high-demand occupations from a database of 25,000 individuals. Paramedics ranked first of all occupations studied in terms of negative impacts on physical health, fourth in negative impacts on psychological well-being, and second in low job satisfaction. Nursing staff (seventh), medical

personnel (eighth), and other health care professionals (ninth) also reported both psychological and physical stressors resulting from low job satisfaction (Johnson et al., 2005).

The occupational stress of emergency service work significantly affects both the health and home lives of the worker, as well. Collateral research on the families of emergency service professionals suggests that occupational stresses negatively affect the quality of interpersonal relationships within the family (Larson & Almeida, 1999; Pfefferbaum et al., 2002; Regehr, 2005; Regehr et al., 2005). Further, cardiac responses, such as elevated heart rate, have been identified in emergency service professionals following a stressful event on the job (Regehr et al., 2007). These responses do not diminish by the end of the shift; they are carried home, resulting in both long-term physiological and psychological effects (Anderson, Litzenberger, & Placas, 2002; Roberts & Levenson, 2001). Emergency service professionals may carry home long-term psychological symptoms at levels consistent with a diagnosis of Posttraumatic Stress Disorder (Alexander & Klein 2001; Marmar et al., 1999). Studies considering this distress relate these symptoms to the trauma that emergency service professionals are exposed to, as an occupational stressor (Figley, 1999).

The term secondary traumatic stress (STS) is operationalized to refer to the observation that those who come in continued close contact with trauma survivors (including any emergency service professional, first responder, or mental health clinician) may experience considerable emotional disruption and may become indirect victims of the trauma themselves (Figley, 1995). Historically, the psychological effects of direct exposure to traumatic stressors are well documented. The negative psychological impact of trauma has been given a pivotal role in psychopathology since Freud first theorized that trauma is linked to in the etiology of mental disorders (Freud, 1896/1957, 1933/1964).

STS has been viewed as an occupational hazard of providing direct services to traumatized populations (Figley, 1999; Munroe et al., 1995; Pearlman, 1999). The individual affected by secondary exposure to traumatic stress displays symptoms very similar to primary exposure (Chrestman, 1999), such as intrusive imagery related to the client's traumatic disclosures (Courtois, 1988; Danieli, 1988; Herman, 1992; McCann & Pearlmann, 1990), avoidant responses (Courtois, 1988; Haley, 1974), physiological arousal (Dutton & Rubinstein, 1995; Figley, 1995; McCann & Pearlmann, 1990), distressing emotions (Courtois, 1988; Herman, 1992), and functional impairment (Dutton & Rubinstein, 1995; Figley, 1995; McCann & Pearlmann, 1990). STS can further be defined, then, as a syndrome of symptoms nearly identical to those of posttraumatic stress disorder (PTSD), including symptoms of intrusion, avoidance, and arousal (Figley, 1999). The difference between PTSD and STS is that, in STS, exposure to a traumatizing event experienced by one person becomes a traumatizing event for a second person (Figley, 1999). Conversely, in PTSD, the traumatizing event is experienced directly by the person.

Previous literature considers various coping strategies employed by emergency service professionals and the mediating effects of coping on stress and distress (Rowe & Regeher, 2010). As a means of coping with STS, emergency service personnel often use humor as a supportive mechanism (Moran & Massam, 1997). The use of humor as a coping mechanism is considered a valued tool among emergency service professionals. Humor is acknowledged as a characteristic of emergency care culture, and is used as a means to balance the climate of the emergency department, thus maintaining the "sentimental order" (Glaser & Strauss, 1968; Meyer, 2001). Humor also unites employees in the workplace. The sharing of gallows humor, an illogical response to hopeless situations, allows professionals to facilitate solidarity as they engage in

laughter and shared recognition. This is accomplished simultaneously, as one narrates their humorous stories (Young, 1995). Further, humor allows for an illogical, incongruous response to hopeless situations, and offers the person a triumph of sorts, as a way to maintain sanity under insane circumstances (Kuhlman, 1988).

In addition, humor allows for the worker to become the storyteller, modifying situations with the goal of reorganizing his or her stories' meaning spontaneously (Mishkin, 1997). As thus, it is understood that humor often serves a protective function for those who use it; humor is a means of protecting oneself from their occupational stress. In fact, emergency professionals have reported that humor, when used in some situations, can break up the tension, and allow them to focus on the tasks laid out in front of them (Scott, 2007). Martin (2007) has theorized four distinct types of humor: Affiliative, Self-Enhancing, Aggressive, and Self-Defeating. An Affiliative Humor style and a Self-Enhancing Humor style are both reportedly related to enhancing interpersonal relationships in a benign manner. Comparatively, Aggressive and Self-Defeating Humor styles are often considered maladaptive, and are displayed by individuals with low levels of communication (Martin et al. 2003).

In addition to emergency service professionals, mental health clinicians also share a similar experience of occupational stress, and also use humor as a means of coping (Craun & Bourke, 2014). A mental health clinician can be operationally defined as an individual who works with and provides direct mental health services to adults, children, and/or families. Specifically, psychiatrists, psychologists, nurses, social workers, drug and alcohol counselors, marriage and family therapists, all fit within the category of a mental health clinician. Mental health clinicians indirectly exposed to trauma have reported symptoms such as flashbacks, avoidance behaviors, sleep disturbances, irritability, and dissociation (Bride, 2004; Dane &

Chachkes, 2001; McCann & Pearlman, 1990).

Mental health clinicians are critical to both the mental health system and the social service networks of many communities. Clinicians see millions of people struggling with severe mental illness and emotional crises. Emergency departments in the United States encountered 3.7 million visits for mental disorders in 2004. This number is on the rise, as the numbers of presenting patients have dramatically risen in the past two decades (Lipson and Koehler 1986, Rabinowitz 1995, Allen 1996, Claassen 2000).

Due to higher caseloads, inadequate resources, and more “difficult” clients mental health clinicians employed in a public health setting may be at greater risk of STS, compared to clinicians in private practice (Vredensburgh, Carlozzi, & Stein, 1999). Clients at public mental health clinics are more likely to experience poverty, unemployment, and exposure to crime, suggesting agency workers might also be exposed to an increased percentage of traumatized clients (Newell & MacNeil, 2011). Compared to clinicians in private or group practice, working in the public sector is also associated with higher rates of client-experienced trauma (Cougles, Resnick, & Kilpatrick, 2009; Goldsmith, Barlow, & Freyd, 2004). In acute psychiatric units, staff spend a great deal of time grappling with risk managements and are dissatisfied with the nature of their work (Rhodes, 1991).

Clinicians working in public mental health with clients directly affected by complex trauma report a high degree of compassion satisfaction, or the satisfaction from being able to help other people. The same clinicians also experienced an increase in STS compared to workers who did not interact directly with patients, such as support staff, IT departments, or maintenance workers (Cougles, Resnick, & Kilpatrick, 2009). Further, compassion satisfaction is strongly associated with empathic concern (Gleichgercht & Decety, 2013).

In addition to running the risk of STS, mental health clinicians share the task of using empathic listening, or empathy, as a skillset of their professions. As thus, empathy is considered to represent the channel of vulnerability for STS (Figley, 1995). Emotional separation refers to the mental health clinician's ability to cognitively modulate emotional reactions to patient material to maintain appropriate distance and objectivity (Corcoran, 1983). The ability to emotionally separate from the patient while being empathic may more precisely protect against STS (Corcoran, 1983).

Empathic arousal is defined as the contagious sharing of the affective state of another. Empathic understanding relates to the formation of an explicit mental representation of how another person is feeling. Empathic concern refers to other-oriented emotion felt for someone in need; this produces a motivational state of increasing the other's welfare. For the therapy to be effective, a clinician must provide this empathy to the client. The very presence of empathy serves to transform the client. Empathy is sometimes described subjectively (Rogers, 1957) and sometimes presented objectively as a therapeutic technique (Aspy, 1975). Empathy is also referred to as a communication skill (Truax & Carkhuff, 1965; Brown, 1981). When empathy is treated subjectively as a communication of the therapist's experience, or objectively as a technique or skill, the result is that empathy can be brought to a therapeutic relationship.

Alternatively, empathy can emerge from the interaction of the participants in that relationship.

Davis (1980) identified a multidimensional approach to differences in empathy. Perspective-taking assesses spontaneous attempts to adopt the perspectives of other people, and the ability to see things from their point of view. Fantasy-type empathy relates to the tendency to identify with characters in movies, novels, plays and other fictional situations. Empathic concern and Personal Distress empathy relate to individuals' chronic emotional reactions to the negative

experiences of others. Specifically, empathic concern relates to individuals' feelings of warmth, compassion, and concern for others, while Personal Distress Empathy measures the personal feelings of anxiety and discomfort that result from observing another's negative experience. As thus, having a higher degree of empathic concern or Personal Distress Empathy might increase one's vulnerability to STS.

Scope of the Study

Though recent research has accounted for the role humor plays coping with STS (i.e, with personnel from an Internet Crimes Against Children task force; Craun & Bourke, 2014), research has yet to be done on the role humor plays in the development of STS on mental health clinicians in a public mental health setting. Further, no study has determined if a relationship between humor type and empathy type and endorsement of STS exists in the public mental health setting. Therefore, the purpose of this quantitative analysis is to examine whether humor and empathy type may be correlated to secondary traumatic stress in the same public mental health setting. Specifically, this study aims to compare two factors in mental health workers' susceptibility to STS: (1) humor type used by clinical and non-clinical staff and (2) empathy type. Specifically, the purpose of this study is to determine:

Are public mental health workers' significantly more likely to endorse STS when they report a higher level of Empathic Concern or Personal Distress Empathy, compared to those who endorse a higher degree of Perspective Taking Empathy or Fantasy-type empathy?

Are mental health clinicians more likely to present with symptoms of STS than other workers in a public mental health care setting?

Are public mental health workers who use Affiliative or Self-Enhancing Humor significantly less likely to report STS symptoms than those who use Aggressive or Self-Defeating Humor?

Is there a relationship between empathy type and humor type in public mental health workers' endorsement of STS?

CHAPTER II: REVIEW OF THE LITERATURE

Literature Review

Coping strategies

Coping strategies used in the face of trauma are ways in which individuals attempt both to manage situations that cause them unpleasant emotions, and to manage those emotions themselves (Lazarus, 2003; Roth & Cohen, 1986). Folkman (1986) refers to coping as “cognitive and behavioral efforts to master, reduce, or tolerate the internal and/or external demands that are created by a stressful event” (p. 843).

Adaptive coping strategies are defined as problem-focused or emotion-focused, while maladaptive coping strategies are defined as approach-focused or avoidance-focused (Cohen 1990; Folkman et al., 1986; Folkman & Moskowitz, 2004). Problem-focused coping is globally defined as directly addressing the problem. Behaviors related to problem-focused coping include attempting to find information about the stress related incident, making a plan to overcome the stressor, and paying attention to the next step to work through or manage the stressor (e.g., Folkman et al., 1986; Folkman & Moskowitz, 2004). Emotion-focused strategies are globally defined as working through the emotional distress that is associated with the stressful event. Behaviors related to emotion-focused coping include disconnecting from emotions that are related to the stress, looking for emotional support, and communicating emotions (Folkman et al., 1986; Folkman & Moskowitz, 2004). Approach strategies have been defined as those coping mechanisms which focus on the stressor itself or one’s reaction to it and are generally regarded as more adaptive (Snyder & Pulvers, 2001). Examples include seeking emotional support, planning to resolve the stressor, and seeking information about the stressor (Tobin, Holroyd, Reynolds, & Wigal, 1989).

Another emotional coping method is emotion regulation, which focuses on the processing that happens before and after an emotional reaction (Folkman & Moskowitz, 2004). Emotion-focused coping is different than emotion regulation in that it focuses on only conscious processes—unlike emotion regulation, which focuses on both conscious and unconscious processes. Emotion-focused coping is also different than emotion regulation in that it focuses on responses to the emotions that are associated with the stressor (Folkman & Moskowitz, 2004). Though both are characterized as adaptive coping mechanisms, problem-focused strategies have been theorized as more adaptive than the emotion-focused strategies because they focus on actively addressing the presented problem (Masel, Terry, & Gribble, 1996).

The extent of the problem-focused or emotion-focused strategies used is dependent on how an individual means to control the situation. Problem-focused strategies are reportedly more adaptive in situations that may be controlled, while emotion-focused strategies are more adaptive in uncontrollable situations (Folkman et al., 1986). Avoidance strategies are focused on avoiding the stressor or one's reaction to it; for example, withdrawing from others, denying that the stressor exists, and disengaging from one's thoughts and feelings regarding the stressor (Snyder & Pulvers, 2001; Tobin et al., 1989). Avoidance strategies have been reported to be maladaptive if an individual persists on relying on them (Snyder & Pulvers, 2001).

In general, individuals vary in their propensity to use specific coping strategies, and they rely on differing numbers of strategies when confronted with stressful situations (Carver et al., 1989). Though some may rely on a broad array of strategies, others may tend to rely on a narrower cluster (Kaluza, 2000). In regards to stress by clinical staff and emergency service professionals, previous literature has reviewed various coping strategies employed specifically by these occupations, and the mediating effects of coping on stress and distress (Rowe &

Regeher, 2010). Task-oriented, emotion-oriented, and avoidant-oriented coping styles are reportedly used by emergency services professionals (Lazarus & Folkman, 1980). In a crisis situation, emergency professionals become highly task-oriented, meaning they initiate attempts to eliminate their stress through different sources of action. However, emergency services personnel also work to maintain emotional control through emotion-oriented coping, which includes behavioral and cognitive responses. The goals of these responses are to manage their emotional reactions to their stressors and to maintain their emotional equilibrium (Billings & Moos, 1981; Lazarus & Folkman, 1984; Rowe & Regeher, 2010).

Evidence shows that some coping strategies seem to be more efficacious at managing stressful situations and affect (Carver, Scheier, & Weintraub, 1989; Marx & Schulze, 1991). Although some research seems to support the idea that problem-focused coping is more functional than emotion-focused coping at reducing psychological distress, there is evidence that the exclusive application of any type of coping may lead to difficulties as well (Savicki, 2002). Utilizing more than one coping strategy has been determined to be more beneficial than any one strategy alone (Savicki, 2002).

There has been some concern in the literature over how to properly define coping efficacy and how to assess it (Lazarus, 2000). Researchers who place strategies into positive and negative categories have been advised not to overlook the possible effectiveness of some strategies under exceedingly stressful conditions. Such conditions may actually impact the stressful environmental conditions leading to conditions that tax one's coping skills (Lazarus, 2003). Some emotion-focused responses involve denial, others involve positive reinterpretation of events, and still others involve the seeking out of social support; accentuating the need to move past this categorization (Carver et al., 1989). Each of these emotion-focused responses is

very different from the other, and they may have very different implications for a person's success in coping.

In previous literature, there has been an attempt to integrate these two conceptualizations of coping by subdividing approach and avoidance strategies into problem/behavioral or emotion/cognitive strategies (Hummelvoll & Severensson, 2001). The problem/behavioral approach to coping is focused on strategies focused on solving the problem. These may include planning how to resolve the stressor or seeking information about the stressor. Other approaches include those that are focused on avoiding the stressor, such as disengaging from attempts to resolve the stressor or withdrawing from others. The emotion/cognitive approach is focused on actively managing one's emotions or thoughts about the stressor. Examples of this approach include attempting to restructure cognitions about the stressor by seeking emotional support. Other examples would be approaches involving avoiding one's thoughts or emotions regarding the stressor, such as disengaging from one's thoughts or feelings about the stressor or engaging in fantasy (Hummelvoll & Severensson, 2001).

There is an overwhelming amount of stress placed on mental health clinicians due to the demand on professional performance and clinical efficiency within the public mental health care setting, including extensive deinstitutionalization, role conflicts, moral stress, high patient and staff turnover, as well as insufficient follow-up (Bray, 1999; Severinsson & Kamaker, 1999). These demands of efficiency and productivity give rise to stress in the workplace (Pettersson & Arnetz, 1997). Humor has been determined as a coping mechanism that clinicians use to combat stress (Christie & Moore 2005; Kuiper et al. 1993). Humor may be considered an emotional approach to coping, which may be maladaptive as a means to disrupt STS. Specifically, the use of humor as a coping mechanism may be indicative to STS symptoms in the public mental

healthcare worker.

Humor

From an etymological point of view, the term “humor” comes from British, French and Latin origins such as “humor”, “humeur” and *humor* (internal secretion) while the word “laughter” is derived from Greek. The Latin word “humor” is derived from the Latin term for fluid; the body was considered to possess four: blood, phlegm, yellow bile, and black bile. These cardinal humors were considered to determine an individual’s health, temperament, or disposition (Ziegler, 1998).

Humor is the tendency of particular cognitive experiences to provoke laughter and provide amusement. For the purpose of this paper, humor is defined as an outlook that may exist apart from laughter, which can provide insight and help one through a crisis situation. There are many different functions for humor, and their uses depend on context (Cooper, 2008). Humor can be considered, some of the time, to be a therapeutic solution (Freud, 1896). Humor is considered to be a bonus to reality, which allows vivid elements to blend in different quantities, and allows individuals to overcome suffering. Currently, psychological theory supports the idea that humor is characterized by cognition (Martin, 2007; Wyer & Collins, 1992; Attardo, 1997). Humor has been theorized to represent a way of escaping limitations and boundaries felt by mental health clinicians both individually and on a group level (Cooper, 2008). Humor has long been seen as an adaptive response to adversity and difficult life circumstances (Herth, 1990).

There are individual differences in peoples’ amounts and styles of humor. A vital construct regarding the understanding of humor is its inextricable link to context. While some individuals are able to easily use humor in order to facilitate interpersonal interactions, others seem to lack any discernible sense of humor (Markley, Suzuki, & Marino, 2014). Previous

research suggests that various demographic characteristics, including gender and age, might account for some of this variability (Martin & Kuiper 1999; Hay 2000). Specifically, older women reportedly laugh less frequently than younger women, (Martin & Kuiper, 1999).

Humor can help promote health, when used as a stress coping strategy (Kuiper et al. 1993). Humor aids individuals to form bonds and resolve interpersonal conflicts (Keltner et al. 1998; Norrick & Spitz 2008; Butzer & Kuiper 2008). There are several different theories on the use of humor (Hargie, 2000). The incongruity and developmental theories relate to the absurd and inappropriate context of a given humorous situation. Incongruity is considered a necessary ingredient for perception of humor (Martin & Kuiper, 1999). Incongruity comes from the combination of the expected versus the unexpected that is common to many jokes. The perception of humor is exacerbated by the number of incongruities and sympathy towards the awkward state of the humorous situation.

Next, the superiority and disparagement or hostility theories refer to the favorable comparison of self in relation to others. Superiority theory states that there is a tendency to laugh about the infirmities or afflictions of others, thus reinforcing self-superiority (Critchley, 2006). Superiority or hostility humor refers to a sense of superiority coming from the belittling of another group or individual (Martin, 2007). This form of humor is often found in ethnic and gender humor. The tension relief theory of humor is based on a belief that a release of energy occurs through the physical reactions of laughter. Specifically, because for some people laughter has a cathartic effect, tension relief humor can be found at funerals and other somber events (Morreall, 2009). The psychoanalytic theories suggest that humor regulates sexual and aggressive drives otherwise repressed into unconsciousness due to societal prohibition (Freud, 1928). Freud (1928) recognized that humor is a particular tool that allows our society to reduce

its tension by expressing our hostile impulses in a socially acceptable manner. Humor is a way of defending against fear, aging, death, sexual desires, aggressive impulses, and anxiety, which is why there are so many jokes about these themes (Tavris & Wade, 2001).

Martin (2007) delineates humor styles and provides insights about how jokes are used given the different situations people encounter, tasks they must perform, and work conditions that they must endure. These humor styles have been defined using two primary dimensions, the different combinations of which create different humor styles (see Figure 1). The first dimension involves differentiating between whether humor is used to enhance the self or to enhance one's relationships with others. The second dimension in this model determines whether or not humor is relatively benign and benevolent (i.e. tolerant and accepting of both self and others) or potentially detrimental or injurious, either to the self or to one's relationships with others (Martin et al, 2003). Within these two dimensions, four humor styles have emerged, and are defined as Affiliative, Self-Enhancing, Aggressive, and Self-Defeating. The four styles can be assessed using the Martin et al. (2003) Humor Styles Questionnaire (HSQ), and individuals fall into one of the four categories.

An Affiliative Humor style is reportedly used to enhance one's relationship with others in a fairly benign manner (e.g., "I enjoy making people laugh"), whereas a Self-Enhancing Humor style enhances the self in a benign manner (e.g., "If I'm feeling depressed, I can usually cheer myself up with humor"). Comparatively, Aggressive and Self-Defeating Humor styles are often considered maladaptive (Martin et al. 2003). An Aggressive Humor style attempts to enhance the self at the expense of others (e.g., "If someone makes a mistake I will often tease them about it"), and a Self-Defeating Humor style is often used to enhance the relationship with others by being detrimental to the self (e.g., "I let people laugh at me or make fun at my expense more than I

should”). An Affiliative Humor style tends to be displayed by individuals with high levels of communion, whereas an Aggressive or a Self-Defeating style is displayed by individuals with low levels of communion (Martin et al. 2003).

Individuals with high levels of emotional intelligence (i.e., individual who possess empathy, emotional control, social awareness, and self-esteem) tend to employ Affiliative and Self-Enhancing Humor, whereas individuals who lack emotional intelligence tend to utilize Aggressive and Self-Defeating Humor (Vernon et al, 2008). The adaptive humor styles (Affiliative and Self-Enhancing) tend to involve the use of, emotional control, social awareness, and self-esteem (Greengross and Miller 2009, Martin et al. 2003; Vernon et al. 2008). Further, individuals who lack emotional intelligence tend to utilize Aggressive and Self-Defeating Humor. Further, the adaptive humor styles (Affiliative and Self-Enhancing) tend to be positively related to extraversion and openness to experience, whereas the maladaptive styles of Aggressive and Self-Defeating Humor tend to be related to low levels of agreeableness and high levels of neuroticism (Greengross and Miller 2009, Martin et al. 2003; Vernon et al. 2008).

Figure 1. The two-dimensional model of humor styles

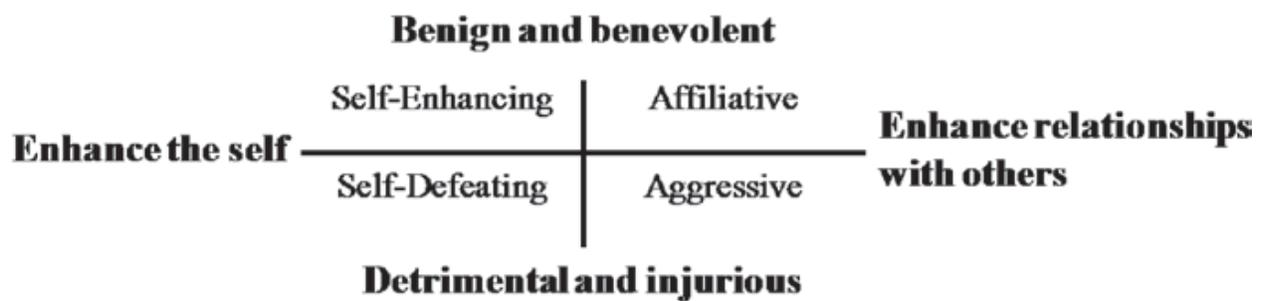


Figure 1. Representation of the two-dimensional model of humor styles, which is assessed by the Humor Styles Questionnaire (HSQ). Adapted from Martin, R. A., Puhlik-Doris, P., Larsen, G., Gray, J., & Weir, K. (2003). Individual differences in uses of humor and their relation to psychological well-being: Development of the Humor Styles Questionnaire. *Journal of Research in Personality, 37*, 48–75.

Humor has been noted to be a coping mechanism and a means of dealing with negative situations in an adaptive way (Abel, 2002). In previous literature, humor has been noted to be a beneficial coping mechanism during war (Ford & Spaulding, 1973; Henman, 2001) and even in concentration camps (Ostrower, 2000). Previous research results provide evidence that humor moderates stress responses and helps people deal with negative experiences (Kuiper, Martin, & Olinger, 1993; Kuiper, McKenzie, & Belanger, 1995). Humor as a distraction may serve as one mechanism by which humor can attenuate negative emotions (Strick, Holland, van Baaren, & van Knippenberg, 2009).

In contemporary theory, humor is one way to express many feelings, including anger, hostility, frustration, and joy. Humor usually cannot be enjoyed alone, and therefore interaction and sharing are important components (Hargie, 2000). The social functions of laughter, which can be a result of humor, have been listed as humorous laughter, social laughter, ignorance laughter, evasion laughter, apologetic laughter, anxiety laughter, derision laughter, and joyous laughter (Hertzler, 1970). Humorous laughter sends a message that a social situation is considered funny, though the social constraint imposed by society on our conduct can be frustrating. Social laughter sends a message of good-natured sociability. In this paradigm, others may feel obliged to reciprocate in a polite attempt to affirm acceptance of the other. Ignorance laughter prevents exclusion; this occurs when a joke has not been understood. The purpose of

evasion laughter is to mask inner feelings. This is seen when an individual is uncertain whether the other person's intentions are hostile or amicable. The purpose of apologetic laughter is to help reduce tension in anxiety-provoking social encounters. Anxiety laughter is seen when a person is trying to compose him or herself after embarrassment. Derision laughter is a means to ridicule and exclude someone; often accompanied by sarcasm and insult (Hertzler, 1970). Joyous laughter is defined as a pure expression of genuine excitement (Hargie, 2000).

Laughter and humor may also be used to diffuse tense and stressful situations. People who work in stressful occupations, such as law enforcement, nursing and emergency medicine, have traditionally used humor to help them cope with the tension of their work (Roth, Yapp, & Short, 2006). Humor is one of a variety of strategies to negotiate stressful circumstances. Individuals who are engaged in stressful tasks benefit more from humorous stimuli than from non-humorous attempts at stress reduction (Abel & Maxwell, 2002). In the work setting, specifically, humor lifts the spirits, increases group solidarity by providing playful interludes, without which would lead to debilitating work. A sense of fun at work is a key factor in worker productivity and resourcefulness (Robinson, 1991).

In an occupational setting, humor can be affirming, affiliative, and self-enhancing, and can improve group processes within the workplace (Romero & Cruthirds, 2006; Romero & Pescosolido, 2008). The positive side of humor, the non-hostile efforts intended to build feelings of affinity between people, enhances coping effectiveness, increases workplace cohesion, and reduces burnout (Mesmer-Magnus et al., 2012). Research on occupations with substantial stress (i.e., firefighters, 911 call-takers, and correctional officers) has noted an important use of superiority humor (Tracy, Meyers, & Scott, 2006). The use of superiority humor between co-workers may provide immediate relief from the work done with individuals such as drug addicts,

prostitutes, the homeless, and various types of criminals. Although the use of superiority humor is often viewed as a negative humor style, in this form superiority humor may bring relief to workers who face threats to their psychological well-being (Tracy, Meyers, & Scott, 2006). The use of humor provides a coping mechanism with the goal of managing stress and preventing burnout (Keller, 1990). The purpose of using humor in the emergency setting is to allow emergency workers to step back from the emotionally strained situations (Critchley, 2006). To abide by professional codes of conduct, emergency personnel must use cautious behavior that is appropriate to the image of their profession. The expression of humor is therefore said to be appropriate when trust, rapport, and closeness have been developed within the staff and inappropriate when the staff may be alienated or damaged, because of the humor (Hyrkas, 2005).

A wide vocabulary of descriptors exists for workers' humor. Specifically, classifications of responses of humor to occupational stress are used quite commonly (e.g., chortle, giggle, squeal, chuckle, roar, snigger, jeer, and guffaw). Police humor, for example, has been described as a way to relieve stress in situations where mastery over work is impossible (Kuhlman, 1988). Police officers are called on to resolve dangerous crisis, and they are typically the first to arrive at grisly death scenes. First responders who are more experienced are more likely to accept humor on the job, a trait that is cultivated during training of new recruits (Young, 1995). Specifically, an ability to respond in a calm manner to an intense sudden death accident helps determine whether the new recruit is going to make it as a good worker. Those workers who do not burn out, and who work through the high emotionality of the job, learn to engage each other in the absurd and to enjoy the spontaneity of some of the moments (Van Wormer & Boes, 1997).

Occupational research on emergency service professionals, describes specific coping strategies from crisis workers, and provides examples of humor used as a mechanism to cope

(Rowe & Regehr, 2010). In the UK, for example, emergency personnel reportedly describe dead bodies as “stiff” or “gonner”. Further, within the US, a linguistic style between emergency personnel has been described, which comprises the unique and colorful use of codes and terms to describe the characteristic state of the dead body, such as “crispy critter,” “greenie,” “veggie,” or “juice” (Palmer, 1983). One emergency service department that may be the public health care equivalent to the police station is the hospital emergency room. In this emergency medical setting, the use of humorous descriptors is often used to permit the individual to disengage from emotionally challenging emergency situations juxtaposed to physiological and, in particular, biochemical adaptation (Scott, 2007).

Humor in the emergency department setting has been described as, at times, disgustingly crude to the outsider (Lindsey & Benjamin, 1981). This brand of joking--often obscene or macabre--is commonly referred to as "medical humor" within this particular context of health and illness (Robinson, 1991). The nursing literature describes humor and laughter as important components of medical practice. For example, there is much wordplay in ER and nursing interactions (van Wormer & Boes, 1997). Nicknaming patients is a common source of amusement. Mimicry is often used to ridicule difficult or peculiar patients, including those who are mentally ill or are intoxicated. Viewed from the outside, such caricatured and comic exaggerations of peculiar traits can be considered offensive and discriminatory. However, viewed from within the context of the ER, such seemingly immature behavior can be understood and even appreciated (Robinson, 1991).

Warner (1991) provided a content analysis of student nurses' narratives of funny episodes within an inpatient psychiatric unit. Laughter was observed in response to the antics of patients whose behavior differed from conventional norms. In the mental health care field, specifically,

humor is reportedly integral to coping. In one example, within the substance abuse paradigm, individuals' own stories provide the treatment group with many opportunities for amusement.

The use of humor in psychotherapy has been researched, as well. Humor has been noted as an appropriate clinical tool for the therapists who work in a crisis setting, or with patients in crisis, as a deliberate intervention (Pollio, 1995). Further, there is a reported essence of humor to mental health clinicians, in general (Siporin, 1984; van Wormer & Boes, 1997). Five aspects of humor have been noted to be prevalent within a mental health setting: (1) tension-relieving nonsense, (2) play on words, (3) a sense of the preposterous and incongruous, (4) gallows humor, and (5) foolish jest (Robinson, 1991). As an example of tension relief, group therapy leaders within an alcohol treatment program at times try to use ice-breakers at the beginning of the group by using fun or funny exercises. As clients engage in the fun exercises, both the seriousness and discomfort of their situation is reduced (Robinson, 1991).

Gallows humor (i.e. black humor) is a common coping strategy used in the mental health care setting (Buchanan & Keats, 2011; Riolli & Savicki, 2010; Roth & Vivona, 2010; van Wormer & Boes, 1997; Wright, Powell, & Ridge, 2006). Gallows humor is an illogical, incongruous response to a hopeless situation that offers the person a sense of triumph over their environment. It is a way to maintain sanity under insane circumstances (Kuhlman, 1988). Gallows humor can occur in an occupational setting where professionals regularly encounter and are forced to deal with sickness, death, and the consequences of senseless violence, such as crisis work. The use of gallows humor in mental health work can be a bit of a balancing act (Moran, 2002). Excessive use of gallows humor could be indicative of psychological distress (Moran, 2002).

Boundaries do appear to exist within the realm of gallows humor in crisis work (Scott,

2007). Gallows humor directed toward a victim, or gallows humor that otherwise dehumanizes individuals, indicates that the individual is not effectively managing his or her well-being, and may be experiencing psychological distress (Moran, 2002). Gallows humor at the expense of a victim is a sign that clinicians may no longer have the capacity to provide high quality, empathic service (Rowe and Regher, 2010).

Empathy

Empathy is viewed as central to mental health care and the patient-clinician relationship (Corcoran, 1983). This skill has been defined as the ability to match another's emotional response (Shantz, 1975). It is the irrevocable part of any interpersonal relationship, a tool of communication, and a facilitator of growth in relationships (Keefe, 1976). Empathy is also referred to as a set of behaviors and skills, which can be learned throughout life. They include perceiving, feeling, thinking, and communicating (Halpern & Lesser, 1960).

Hoffman (1976) hypothesized that early in a child's development he or she cannot differentiate well between the self and others. As thus, when a child observes another human being in distress, he or she will usually experience this distress as his or her own. Over the course of development, this "empathic distress" evolves into "sympathetic concern". Sympathetic concern relates to an individual's compassionate or sympathetic feelings for the person in trouble. This shift from distress to concern arises from the child's development of role taking skills. Specifically, as the child develops the ability to comprehend others' perspectives, the self-centered empathic distress develops into other-oriented concern (Hoffman, 1976).

Empathy does not consist of one single ability; it is a complex socio-emotional competency that has different components. Empathy and its separate processes are underpinned by specific neural systems. These systems are found in the cortex, and are associated with the

brainstem, subcortical nuclei, autonomic nervous system, hypothalamic-pituitary-adrenal axis, and endocrine systems that regulate bodily states, emotion, and reactivity.

Within the mental health field, empathy often describes the ability to understand another's experience, to communicate and confirm that understanding with the other person, and then to act in a helpful manner. For the purpose of this paper, empathy has been operationally defined as an inferential and important skill for public mental health workers. Empathy enables professional counselors and therapists, like nonprofessional lay people, to perceive some measure of insight into the thoughts and feelings of others (Ickes, Marangoni, & Garcia, 1997).

Empathy enables individuals to extend their understanding beyond the superficial meaning of other people's words and actions, with the goal of understanding larger truths about who these people are and what their lives mean to them. Ickes and colleagues (1997) assign empathy to a role of primary theoretical importance, which is typically viewed as a prerequisite for successful therapeutic outcomes (Ickes, Marangoni, & Garcia, 1997). Empathic engagement is crucial to the therapeutic alliance. Empathy must be maintained in clinical work; the achievement of this requires a clinician to listen to their clients with openness (Wilson & Lindy, 1999).

In one early theory, empathy has broken down into two components: cognitive empathy and emotional empathy (Dymond, 1949). Through the first component, cognitive empathy, an individual displays concern while emotionally separating from the person who is psychologically injured. Cognition in empathy is made up of perceptions or similar behaviors that relate to form an interpersonal understanding (Feshback, 1975; Dymond, 1949). Cognitive empathy is made up of the use of objectivity, detachment, and analysis. When utilizing cognitive empathy, an individual must be able to see another person's perspective, and must be able to predict how his

or her actions may affect the person with whom they are interacting. Through the second component, emotional empathy, the individual has an emotional response to the suffering of a particular victim. One's degree of STS may be inversely related to the degree of cognitive empathy displayed for the patients by crisis workers (Rowe, & Regehr, 2010). More specifically, it is possible that the ability to differentiate, or emotionally separate, from the patient while being empathic may protect crisis workers from trauma related symptoms.

In a later theory, Davis (1980) reports that empathy is a complex multidimensional concept. As such, instruments used to measure empathy provide separate assessments of the cognitive, perspective-taking capabilities or tendencies of the individual, and the emotional reactivity of such individuals. It is only by separately measuring such characteristics that their individual effects on behavior may be evaluated. For example, one's perspective-taking capabilities and emotional reactivity may both effect reactions to and behavior toward others, but without separate estimates of these qualities the independent and interactive contributions of each cannot be estimated. Therefore, for the purpose of this study, empathy has been delineated into four distinct, measurable categories: Perspective Taking, Fantasy-type, Empathic Concern, and Personal Distress (Davis, 1980).

Empathy may place the mental health professional at risk of STS (Figley, 1995). This may be due to the tendency of empathic concern to be negatively related to emotional separation. Emotional separation refers a mental health clinician's ability to modulate their emotional reactions to patient material, and to maintain appropriate distance and objectivity (Corcoran, 1983). However, using empathy in one's clinical practice is an essential element of quality care. The use of empathy is associated with improved patient satisfaction, adherence to treatment, and fewer malpractice complaints. This presents a challenge, as use of empathy may improve the

quality of patient care while negatively affecting the clinician's own mental health. Increased empathy and decreased emotional separation are both significantly associated with increased burnout (Corcoran, 1983). This is due, in part, to the role clinician's have in hearing and reliving the intimate details of individuals' most emotionally distressing situations. The ability to differentiate, or emotionally separate, from a client while being empathic may be more precisely protective against syndromes such as STS (Corcoran, 1983).

The ability to experience clients' feelings or stories, and the level of empathy, are both significant predictors for STS for psychotherapists. Therapists who report high levels of empathy also have reported higher levels of STS symptoms (Badger, Royse & Craig, 2012). In light of this, and because mental health clinicians must use empathy when working with their traumatized patients (Figley, 1995; Wilson & Lindy, 1999), a more thorough understanding of the role empathy plays on the development of STS is essential.

Secondary Traumatic Stress

All mental health counselors engage in therapeutic encounters that bring them face to face with a wide variety of adversities to which others may never be privy. The stress that these encounters bring with them is an expected by-product of the work. Throughout this occupation, the levels of stress become excessive and threaten to overwhelm the professional's self-efficacy (Lazarus & Folkman, 1984). Occupational stress related to this work inversely affects physical and psychological well-being (Kahn & Byosiere, 1992; Sauter & Murphy, 1995). Stress involves a specific connection between the person and the environment. This connection exceeds the person's own resources and jeopardizes their mental health. There is a positive association of occupational stress and psychological stress (Boudreaux et al, 1997). It is likely that many mental health clinicians who have cared for traumatized patients have struggled with symptoms

of secondary trauma at some point in their career. This likely occurs when the clinicians are unable to cope with their occupational stress. At this point, the clinicians will, at times, be challenged in their ability to provide effective services (Collins & Long, 2003a).

Although trauma is an inevitable part of the human experience, those who work in the helping professions generally have higher incident rates re-experiencing others' trauma, or STS. Individuals who work with or care for those who have experienced trauma, or those experiencing physical or psychological stress can be stricken with the same psychiatric symptoms, therefore indirectly becoming victims themselves; which is indicative of STS (Figley, 1995; McCann & Pearlman, 1990). When an individual learns about a trauma experienced by a person to whom they feel some form of attachment, or, similarly when an individual feels stress after assisting a traumatized individual, consequences, such as STS symptoms may arise (Figley, 1995).

Secondary traumatic stress theory presumes that clinicians who are affected by STS are more likely to make errors in professional judgments than those clinicians who are not affected (Munroe et al., 1995; Pearlman & Saakvitne, 1995; Stamm, 1997).

Close to 7% of professionals who work with traumatized individuals exhibit STS symptoms, reactions that are similar to symptoms of post-traumatic stress disorder (PTSD; Wilson & Thomas, 2004). These symptoms often interfere with mental health clinicians' abilities to meet their own basic needs, and create feelings of emotional depletion and of being overwhelmed. In response to their occupational stress, mental health clinicians have reported changes in coping and emotional stress over time, which included increased intrusions of thoughts, trauma material, and patient concerns into personal time. Clinicians have also described feeling physically exhausted and emotionally drained in response to hearing and processing patients' stories and tragedies.

STS may alter the clinician's sense of self and negatively impact their psychological well-being (Figley, 1995). Helping professionals who develop symptoms report them to be identical to the victims'; specifically, symptoms similar to Post-Traumatic Stress Disorder. These symptoms include intrusive images and thoughts related to the event (even if they did not experience the trauma directly), avoidance of people and places that may trigger their recall of the event, and hyper-arousal responses (Figley, 1995; Haley, 1974; McCann & Pearlman, 1990). Therefore, the mental health condition associated with a traumatic event is carried over, in a vicarious way, from the victim to the helping professional. In a public mental health care setting, specifically, the professional staff works with a population who is vulnerable and traumatized, and the professionals who work with this clientele are susceptible to STS. Therapists working with clients who have been seriously traumatized may have some negative consequences from their work (Veer, 1998). Through listening to their clients' tragic stories, clinicians may feel similar deep emotions to their clients (Figley, 1995). For the purpose of this paper, STS is described as a consequence for the public mental health worker engaged in work with those experiencing pain (Figley, 1999).

Researchers recognize the influence that exposure to traumatic stories may have on mental health clinicians (Abendroth & Flannery, 2006; Brosche, 2003; Collins & Long, 2003b; Figley, 2002b; Maytum, Heiman, & Garwick, 2004; Pfifferling & Gilley, 2000; Sabo, 2006; Schwam, 1998). Many of the cited researchers have begun to merge terms associated with STS. Specifically, STS is an umbrella term, and, in addition, other terms have been used in the literature to discuss staff STS (see Table 1). For example, compassion fatigue has been found in individuals who work with victims of traumatic events. These individuals then fall victim to STS reactions, themselves, due to the work done with the traumatized person (Figley, 1995). These

reactions develop due to a combination of a clinician's exposure to patients' traumatic experiences as well as the clinician's empathy for the traumatized patients. A clinician who develops compassion fatigue may be unable to deliver effective treatment to his or her patients (Figley, 1995). Symptoms that are present in those with compassion fatigue include intrusive thoughts, avoidant behavior, and hypervigilance (Figley, 2002b). Compassion fatigue is often found as a result of counseling traumatized individuals, and is related to hearing about the clients' traumatic experiences. In addition to negatively affecting client outcomes, compassion fatigue may also contribute to burnout of the clinicians (Adams, Figley, & Boscarino, 2008; Bride, 2007; Figley, 2002b; Stamm, 1999).

Burnout is a term related to overall exhaustion, which is caused by involvement in intense and emotionally demanding situations. Healthcare professionals are more likely to experience burnout, and factors found in professionals who are experiencing burnout are low morale, absenteeism, high job turn-over, and other job stress (Pines & Maslach, 1978). The individuals who are significantly more likely to experience both burnout and STS are those who work in the helping professions (Figley 1995, 1999). Specifically, working frequently with individuals experiencing difficulty significantly increases the risk of developing mental health symptoms (Figley, 2002; Sabin-Farrell & Turpin, 2003).

Table 1.

Comparative Definitions of Trauma Concepts

Term	Definition
Burnout	Burnout is a "defensive response to prolonged occupational exposure to demanding interpersonal situations that produce psychological strain and provide inadequate support" (Jenkins & Baird, 2002, p. 424).

Compassion Fatigue	The consequence of working with a significant number of traumatized individuals in combination with a strong empathic orientation (Figley, 1995) or a formal caregiver's reduced capacity and interest in being empathetic for a suffering individual (Adams, Boscarino, & Figley, 2006).
Compassion Satisfaction	Satisfaction with work by helping others (Stamm, 2002).
Primary Traumatization	Primary traumatization is the process that can occur from having direct contact with a traumatic event (Peebles-Kleiger, 2000).
Post-Traumatic Stress Disorder	A psychological disorder associated with a stress response from directly experiencing a traumatic event (APA, 2002).
Secondary Traumatic Stress	The distress and emotional disruption connected to an encounter with an individual who has experienced a primary traumatization (Bride, 2007).
Secondary Traumatization	Secondary traumatization (ST), via an indirect exposure, may develop from hearing about a traumatic event or caring for someone who has experienced such an event (Peebles-Kleiger, 2000).

Exposure to trauma does not guarantee a psychiatric illness (Kessler et al., 1995). Further, as not all clinicians develop STS after working with traumatized patients, it is hypothesized that there is a protective factor in some individuals who work with these patients (Stamm, 1998). In a research study investigating the frequency of symptoms of STS in a sample of helping professionals, the symptom most frequently expressed by the participants was an intrusive manifestation, such as feelings of heart palpitations when thinking about work (Argento & Setti, 2011). Further, the number of hours per week dedicated to rescue work reportedly had a direct influence on the participants' perception of their level of efficacy. This number was also inversely related to the participants' energy levels. One conclusion made by the researchers was that, while working more hours as helping professionals contributed to a greater likelihood of the

professional believing themselves to be efficient both personally and professionally, it also contributed to a loss in energy available for their work (Argento & Setti, 2011).

While only a few researchers (Abendroth & Flannery, 2006; Collins & Long, 2003a) have published on healthcare providers' experience with mental health, clinicians seemingly have a higher rate of exposure to traumatized individuals than the general population, which could lead to higher levels of STS symptoms (Meadors, Lamson, Swanson, White & Sira, 2009). More specifically, very few known quantitative studies have focused on the implication of the relationship between STS, and public mental health workers (Abendroth & Flannery, 2006).

Further, few studies have focused on the role empathy type plays in the development of STS symptoms on public mental health workers. Previous research has determined that, while all mental health clinicians use empathy, only 50% have been found to be at high risk for developing STS (Rudolph, Stamm, & Stamm, 1997).

As coping skills contribute to lower levels of STS, it may be that humor type, specifically has a protective factor in endorsement of STS symptoms (Pines, 1983). While greater use of positive coping styles is related to less likelihood of STS (Brown & O'Brien, 1998; Carson et al., 1999; Pines, 1983; Schauben & Frazier, 1995), negative coping behaviors, such as professional isolation, have been related to individuals at higher risk for STS (Creamer & Liddle, 2005; Stamm, 1999; Terry, 1999). To date, no study has looked at the role of humor type plays as a coping mechanism for STS, when used by specifically by public mental health clinicians. Further, no study has determined if an interaction may be found between humor empathy type, in relation to STS. As thus, the purpose of this paper is to determine if public mental health workers' humor and empathy types are related to their STS.

Research Questions

1. Are public mental health workers' who endorse a higher level of Empathic Concern or Personal Distress empathy significantly more likely to endorse STS symptoms than those who endorse a higher degree of Perspective Taking Empathy or Fantasy-type empathy?

2. Are mental health clinicians more likely to present with symptoms of STS than other, non-clinical, workers in a public mental health care setting?

3. Are public mental health workers who use Affiliative or Self-Enhancing Humor significantly less likely to report STS symptoms than those who use Aggressive or Self-Defeating Humor?

4. Does the relationship between humor type and STS differ based on the public mental health workers' empathy type?

Research Hypothesis

1. Are public mental health workers' who endorse a higher level of Empathic Concern or Personal Distress empathy significantly more likely to endorse STS symptoms than those who endorse a higher degree of Perspective Taking Empathy or Fantasy-type empathy?

1a. Public mental health workers who endorse higher scores of Empathic Concern or Personal Distress empathy types will be significantly more likely to report secondary traumatic stress symptoms than those who endorse Perspective Taking or Fantasy-type empathy.

2. Are mental health clinicians more likely to present with symptoms of STS than other, non-clinical, workers in a public mental health care setting?

2a. Mental health clinicians will be significantly more likely to present with symptoms of STS than non-clinicians in a public mental health care setting

3. Are public mental health workers who use Affiliative or Self-Enhancing Humor significantly less likely to report STS symptoms than those who use Aggressive or Self-Defeating Humor?

3a. Public mental health workers who endorse an Affiliative or Self-Enhancing Humor style will be significantly less likely to endorse symptoms of STS than those who report an Aggressive or Self-Defeating Humor type.

4. Does the relationship between humor type and STS differ based on the public mental health workers' empathy type?

4a. There will be significant interaction between public mental health workers specific empathy type and humor type in relationship to the endorsement of STS symptoms.

CHAPTER III: RESEARCH DESIGN AND METHODOLOGY

Research Design

The research and design for this study is a quantitative analysis of data collected through a quasi-experimental, participatory research design. The proposed research was a field experiment. Field research is a term for any empirical research outside of a laboratory. Participants in the proposed study were asked to fill out a series of measures; participants were taken from a convenience sample of those adults staffed at the department of Alcohol, Drug, and Mental Health Services (ADMHS) of Santa Barbara County in California.

The department of Alcohol, Drug, and Mental Health Services in Santa Barbara County of Santa Barbara, serves men, women and children of all ages throughout North and South Santa Barbara County, and staffs approximately 566 individuals. The services provided by ADMHS to the citizens of Santa Barbara county consists of: Access and Assessment teams, Community Health Educators, Inpatient Acute Services, Integration of Behavioral Health Care in Community Clinics, Patients' Rights, Network Providers, several providers for children affected by drugs and violence, Child Protective Services, Early Childhood Mental Health, Residential Placement for Children, School Based Mental Health Programs, Therapeutic Behavioral Services, Wellness and Resiliency Teams for both children and Adults, Adult Probation Services, Assertive Community Treatment (ACT), Crisis Teams, Homeless Outreach, Crisis Residential Services, Crisis Triage Teams, Detoxification Services, HIV/AIDS Testing Services, Narcotic Treatment Programs, and Drug Diversion Programs. Each of these programs consists of a set or subset of administrators, case managers, and a different subgroup of mental health clinicians (i.e, psychologists, psychiatrists, drug and alcohol counselors, etc.). ADMHS provides treatment, rehabilitation and support to nearly 8,000 clients with mental illness and nearly 5,000 clients with substance use

disorders each year. The majority of these clients is publically funded, homeless, and have a severe persistent mental illness.

The procedure of this study began upon approval from Antioch University IRB. Upon institutional approval from the county in California in which this study took place, the primary investigator of this study was permitted to send an email request to all staff at ADMHS for the purpose of recruitment. The email provided a link to an online survey, and explained the purpose of this research project and as well as the risks and benefits to completing the survey. The entire county staff was emailed and provided to the link to the online survey. There was no reward for completing this survey. It was projected that this online survey would take no less than 15 minutes and no more that 30-45 minutes to complete. The online survey consisted of (a) a sociodemographic; (b) the Humor Styles Questionnaire (Martin, Puhlik-Doris, Larsen, Gray, & Weir, 2003); (c) the Interpersonal Reactivity Index (Davis, 1980); (d) the Brief COPE (Carver, 1997), which was not used for this paper, but may be used in future research; and, (e) Secondary Traumatic Stress scale (Bride et al., 2004). All ADMHS staff, both mental health clinicians lay-person staff received the online study in an email. The non-clinical staff was a comparison group of this study.

Participants

Participants were a representative sample of mental health workers from Santa Barbara County, a county along the central coast of California. Participants were solicited through an email sent to all ADMHS staff. The sample consisted of mental health providers and support staff employed throughout the public mental health crisis, inpatient, and outpatient clinics which serves populations of consumers who are undocumented, uninsured, insured through public assistance, and insured but in crisis and unable to reach their mental health providers.

Participants were a required age of 18 years or older. There were no other exclusion criteria.

Measurements

Empathy. Empathy was defined as an inferential and important skill for public mental health workers. Empathy enables professional counselors and therapists, like nonprofessional lay-people, to perceive some measure of insight into the thoughts and feelings of others (Ickes, Marangoni, & Garcia, 1997). For the purpose of this study, empathy has been delineated into four distinct, measurable categories: Perspective Taking, Fantasy-type, Empathic Concern, and Personal Distress (Davis, 1980).

In this study, empathy was measured by the Interpersonal Reactivity Index (IRI; Davis, 1983). The IRI is a 28-item questionnaire, which contains four 7-item sub-scales which tap into the four separate facets of empathy: Perspective Taking (PT), Empathic Concern (EC), Fantasy-type (F), and Personal Distress (PD). The PT and the F scales relate to the cognitive aspect of empathy. EC and PD scales relate to the emotional aspects of empathy. The scales of the IRI show moderate to good homogeneity with Cronbach's alpha coefficients ranging from .68 to .79 (Davis, 1983). Cronbach's alpha coefficients ranged from .71 to .77 on the subscales, demonstrating adequate internal reliability (Davis, 1983).

Humor. In this study, humor was defined as an outlook that may exist apart from laughter, which can provide insight and help one through a crisis situation. To assess the mental health professionals' use of humor in the workplace, the Humour Styles Questionnaire (Martin, Puhlik-Doris, Larsen, Gray, & Weir, 2003) was used. The HSQ is a 32-item inventory designed to measure two positive humor styles (affiliation and self-enhancement) and two negative humor styles (Aggressive and Self-Defeating). There are four sub-scales measured in the HSQ: Affiliative, Self-Enhancing, Aggressive and Self-Defeating. This measure shows moderate to

good reliability with Cronbach's alpha coefficient's ranging from .77-.81 (Martin et al., 2003).

Secondary Traumatic Stress. STS was defined as a consequence for the public mental health worker engaged in work with those experiencing pain (Figley, 1999). STS is the emotional and behavioral symptoms associated with work-related indirect trauma exposure and was measured by the Secondary Traumatic Stress Scale (STSS; Bride, Robinson, Yegidis, & Figley, 2004). The STSS measures symptoms of secondary trauma akin with PTSD symptomatology. The STSS is a 17-item questionnaire with answers on a 5-point Likert-type scale. There is a very strong reliability with this measure with a Cronbach's alpha of .93 (Bride et al., 2004).

Sociodemographic questionnaire. A sociodemographic questionnaire was included to measure participants' age, gender, job type, type spent at ADMHS, and time spent working in healthcare, in general.

Data Collection

Participants were recruited through ADMHS County of Santa Barbara. Participants were be emailed a link through ADMHS server on two occasions. The link sent participants online electronically to Survey Monkey (SurveyMonkey.com, LLC, Palo Alto, CA; www.surveymonkey.com) to complete their surveys. Each survey was de-identified and confidential.

Data Analysis Procedures

The quantitative data collected in this study was organized and analyzed using the Statistical Package for the Social Sciences (SPSS). In the analysis sociodemographic data was controlled, and any potential interactions were tested. Through the use of SPSS, univariate distributions were obtained to provide a description of the sample. Further, a multivariate

regression with robust standard errors, including standardized coefficients was used. Standardized betas were provided within the regression results for readers to more easily understand the impact of each variable, regardless of scale. Regression diagnostics were also run to test multicollinearity, normality of the regression residuals, model specification error, and influential observations. Any missing data were replaced through mean replacement.

Research Question One

1. Are public mental health workers' who endorse a higher level of Empathic Concern or Personal Distress empathy significantly more likely to endorse STS symptoms than those who endorse a higher degree of Perspective Taking Empathy or Fantasy-type empathy?

1a. Specifically, is there a relationship between empathy type and secondary traumatic stress, as measured by the Interpersonal Reactivity Index (Davis, 1980) and the Secondary Traumatic Stress Scale (Bride et al., 2004)?

Independent Variable. The independent variable for this research question:

Empathy Type: Interpersonal Reactivity Index score

Dependent Variable. The dependent variables for this research question:

Secondary Traumatic Stress Scale score (Bride et al., 2004)

Research Question Two

2. Are mental health clinicians more likely to present with symptoms of STS than other, non-clinical, workers in a public mental health care setting?

2a. Specifically, is there a relationship between occupation within a public mental health care setting and STS as measured by the sociodemographic questionnaire and the Secondary Traumatic Stress Scale (Bride et al., 2004)?

Independent Variable. The independent variable for this research question:

Occupation: Mental Health Clinician vs. Non-Clinician

Dependent Variable. The dependent variables for this research question:

Secondary Traumatic Stress Scale score (Bride et al., 2004)

Research Question Three

3. Are public mental health workers who use Affiliative or Self-Enhancing Humor significantly less likely to report STS symptoms than those who use Aggressive or Self-Defeating Humor?

3a. Specifically, is there a significant relationship between humor type and STS, as measured by the Humor Styles Questionnaire (Martin et al., 2003) and the Secondary Traumatic Stress Scale (Bride et al., 2004)?

Independent Variable. The independent variable for this research question:

Humor Type: Humor Styles Questionnaire (Martin et al., 2003)

Dependent Variable. The dependent variables for this research question:

Secondary Traumatic Stress score (Bride et al., 2004)

Research Question Four

4. Does the relationship between humor type and STS differ based on the public mental health workers' empathy type?

4a. Specifically, is there a significant relationship between both humor style and empathy style and Secondary Traumatic Stress as measured by the Humor Styles Questionnaire (Martin et al., 2003), the Interpersonal Reactivity Index (Davis, 1980), and the Secondary Traumatic Stress Scale (Bride et al., 2004)?

Independent Variable. The independent variable for this research question:

Interpersonal Reactivity Index and Humor Styles Questionnaire scores (Davis, 1980; Martin et al., 2003)

Dependent Variable. The dependent variables for this research question:

Secondary Traumatic Stress score (Bride et al., 2004)

CHAPTER IV: RESULTS

Sample selection and characteristics

Participants who completed the online survey were a representative sample of public mental healthcare workers, both clinical and non-clinical, from Santa Barbara County, a county along the central coast of California. A total of sixty (n=60) participants completed the survey. The participants surveyed were 73% female (n=44). Ages of the participants ranged from 18-34 (24%; n=14); 35-44 (17%; n=10); 45-54 (28%; n=17); and 55+ (31%; n=19). Fifty percent (n=30) of participants reported that their ethnicity was Caucasian. Twenty five percent (n=15) of the participants identified as Latino/Hispanic. The remaining participants identified themselves as mixed race or mixed ethnicity (23.3%; n=14) or Asian American (1.7%; n=1). Participants' time working for ADMHS consisted of 0-1 years (19%; n=11); 1-3 years (20%; n=12); 3-6 years (8.3%; n=5); 6-9 years (20%; n=12); and 9+ years (30%; n=18). Participants were also asked about their time working in Mental Health, in general. Fifteen percent (n=9) had been working in the mental health field for up to three years. Ten percent (n=6) reported that they had been working in mental health for 3-6 years. Further, 21.7% (n=13) had been working in the mental health field for 6-9 years, and 53% (n=32) had been working in the field for 9+ years. Finally, 78.3% (n=47) of participants identified as mental health clinicians, while 21.7% (n=13) of participants endorsed a non-clinical occupation in the field of public mental health.

Data Analysis

Pearson correlation statistics were performed to test all hypotheses. A Pearson correlation (Table 2) was computed for all demographic variables. The matrix yielded sufficiently low correlations to interpret most variables as independent. However, the variables "how long have you been working with ADMHS" and "how long have you been working in the mental health field" were highly correlated, suggesting that they were perhaps collinear. Further, the variables

“how long have you been working in the mental health field” and age “55+”, also resulted in a medium to strong positive correlation, suggesting that they were perhaps collinear.

Pearson correlation statistics yielded significant relationships between several independent variables. First, Perspective Taking Empathy was inversely related to Aggressive Humor

($r = -.315$; $p < .05$). Further, there was a moderate relationship found between STS to both Self-Defeating Humor ($r = .469$; $p < .001$) and Fantasy-type Empathy ($r = .389$; $p < .001$).

Multiple regression analyses were conducted with the goal of assessing the influence of the independent variables (humor type, empathy type, clinical vs. non-clinical staff), on the dependent variable, STS. Multiple regression procedures were performed on a full model. In the full regression model, all variables were entered into the equation to test the variables’ influence on the dependent variable, displayed in Table 3.

Results show that occupation type was related to STS. Specifically, non-clinical staff were significantly more likely to endorse STS ($p < .05$). Further, non-clinical staff who endorsed Personal Distress Empathy were significantly more likely to endorse STS ($p < .05$). Next, both Fantasy-type Empathy ($p < .001$) and Perspective Taking Empathy ($p < .05$) were significantly related to STS. Self-Defeating Humor ($p < .01$) and Self-Enhancing Humor ($p < .01$) were also significantly related to STS.

Table 3

Full Multiple Regression Model

Model	Unstandardized coefficients	Beta	t	Sig.
Constant	2.899		.374	.710

	(7.759)			
Age 35-44	1.837 (3.778)	.074	.486	.629
Age 45-55	-2.178 (3.265)	-.106	-.667	.508
Age 55+	-1.404 4.166	-.068	-.337	.738
Time in MH	.941 (1.265)	.125	.744	.461
Time at ADMHS	.292 (.726)	.061	.403	.689
Male	-3.117 (2.617)	-.146	-1.191	.240
Non-Clinical	12.068 (5.674)	.535	2.127	.038*
Fantasy Scale Empathy	.804 (.192)	.415	4.194	.000**
Self-Defeating Humor	.576 (.101)	.595	5.726	.000**
Self-Enhancing Humor	-.366 (.100)	-.369	-.3668	.001**
Personal Distress Empathy	.263 (.223)	.140	1.176	.245

Perspective Taking Empathy	.445 (.197)	.217	2.260	.028*
Personal Distress x Non-Clinical	-.810 (.386)	-.560	-2.096	.041*

Note: Dependent Variable is Total STS

**Significant at the .01 level

*Significant at the .05 level

Answering the research questions

The first question posited in this study asked if public mental health workers' who endorse a higher level of Empathic Concern or Personal Distress empathy are significantly more likely to endorse STS symptoms than those who endorse a higher degree of Perspective Taking Empathy or Fantasy-type empathy. The hypothesis was that Public mental health workers who endorse higher scores of Empathic Concern or Personal Distress empathy types would be significantly more likely to report STS symptoms than those who endorse Perspective Taking or Fantasy-type empathy. This study partially confirms this hypothesis. Public mental health workers who were non-clinical were significantly more likely ($p < .05$) to endorse Personal Distress empathy than clinical staff. However, there was no significant relationship found between clinical staff and Personal Distress Empathy, nor Empathic Concern. Perhaps Personal Distress Empathy or Empathic Concern involve a protective factor for STS. Further, contrary to the original hypothesis, there was a significant relationship between STS and both Perspective Taking Empathy ($p < .05$) and Fantasy-type empathy ($p < .001$).

The second research question asked if mental health clinicians are more likely to present with symptoms of STS than other, non-clinical, workers in a public mental health care setting.

The original hypothesis was that mental health clinicians would be significantly more likely to present with symptoms of STS than non-clinicians in a public mental health care setting. In contrast to this hypothesis, the opposite result was found. Specifically, non-clinical staff were significantly more likely to report STS than clinical staff ($p < .05$).

The third question of this study asked if public mental health workers who use Affiliative or Self-Enhancing Humor were significantly less likely to report STS symptoms than those who use Aggressive or Self-Defeating Humor. The original hypothesis was that public mental health workers who report an Affiliative or Self-Enhancing Humor style would be significantly less likely to endorse symptoms of secondary traumatic stress than those who report an Aggressive or Self-Defeating Humor type. This hypothesis was partially confirmed, as the participants, both clinical and non-clinical who endorsed STS were significantly more likely to use Self-Defeating Humor ($p < .01$). However, participants who endorsed STS were also more likely to use Self-Enhancing Humor ($p < .01$). These results may also indicate that Aggressive or Affiliative Humor are more protective than Self-Defeating or Self-Enhancing Humor.

Finally, this study asked if the relationship between humor type and STS differed by empathy type. Although the hypothesis was that there would be a significant interaction between public mental health workers' specific empathy type and humor type, no relationship was found to STS.

CHAPTER V: DISCUSSION

Summary of Findings

Results of this study indicate that non-clinical staff within a public mental healthcare setting are more likely to report STS than clinical co-staff. Non-clinical staff reporting feelings of anxiety or discomfort resulting from observing another's negative experience are also more likely to have higher STS. Further, the combined staff, both clinical and non-clinical, who report a greater tendency to enhance their relationships with others by being detrimental to the self also are more likely to report STS. Those who use humor to enhance themselves at others' expense are more likely to report STS, as well. This particular finding indicates that there may be personal element to the use of humor by those who have STS.

Cognitive empathy types were also correlated to STS. Specifically, public mental healthcare workers who report that they identify with characters in movies, novels, plays and other fictional situations may also be more likely report STS. Similarly, public mental healthcare workers who reportedly use spontaneous attempts to adopt the perspectives of other people are more likely to report STS. In addition, those in this perspective-taking group reported an inverse relationship to the use of humor to enhance themselves at the expense of others, despite this type of humor being linked to STS, as well.

Implications and consistency of findings

Previous research indicates that close to 7% of all mental health professionals who work with traumatized individuals exhibit STS symptoms (Wilson & Thomas, 2004). Results of this study show that, in the public mental healthcare field, professionals who are not considered a mental health professional are more likely to exhibit the same symptoms than clinicians. This may be, in part, due to their exposure to secondary trauma and lack of education about such

coping mechanisms as self-care. Further, there may be a protective factor found in clinical workers when compared to non-clinical staff, which may be the result of training. Specifically, the added construct of compassion satisfaction may result in the protective factor seen in these findings. As thus, the ability to feel satisfied with the empathetic concern and helpful outcomes that clinicians have with clients may be a protective factor for STS. Future research might look towards the characteristics of clinical staff in a public mental health care setting, including the degree of compassion satisfaction, that results in resiliency to STS.

This study also indicates that humor may be linked to STS, particularly when it is used to enhance the self or to enhance one's relationships with others. This finding is consistent with previous research, which indicates that disparaging humor may be indicative of psychological distress (Moran, 2002). This finding may provide a clue to how humor may be used as a means to cover up secondary trauma. Specifically, individuals who tend to disparage either themselves or others' in the form of humor may be masking a deeper traumatic response to their environment.

Next, both cognitive empathy types, Perspective Taking and Fantasy-type were related to STS. Specifically, individuals' who attempt to see others' perspectives as well as those who identify with fictional characters may be unknowingly missing a protective factor from secondary stress. Perhaps it is the cognitive dimension of empathy, such as taking others point of view, as opposed to the emotional factors, such as feeling similar feelings as the other person, which is linked to the susceptibility to STS.

Limitations and future research

There were several limitations to this study. First, though the sample size of this study was over 10% of the population at ADMHS, the number of participants was relatively small

(n=60). Future research might attempt to replicate these findings within a larger sample. However, because this study did represent a significant sample of the ADMHS population, it may be necessary for the administration at ADMHS to work towards teaching elements of self-care to the non-clinical staff, as this might be prophylactic in nature. Specifically, teaching elements of self care to non-clinical staff may assist them in deterring the symptoms of STS. Further, as non-clinical staff may not be familiar with symptoms of STS, ADMHS should consider educating the staff on STS and the symptoms.

Santa Barbara County is a relatively smaller sized community (pop. 435,697; 2013). Future research should explore the effects of humor type and empathy type on STS in a larger community, or a more urban setting. Future research might also attempt to characterize the specific mechanisms within STS which affect non-clinical staff. Previous research includes subscales of STS, which were not included in this study. Finally, the majority of respondents to this study were Caucasian or Latino/Hispanic. In the future, a more diverse population may provide a greater amount of information for researchers.

Conclusion

Empathy is a particular trait that makes mental health clinicians susceptible to STS (Figley, 1995). However, mental health professionals are not alone in their susceptibility to STS. In fact, non-clinicians in the same public mental healthcare setting, in this study, were more likely to report psychological distress than their clinical counterparts. This may be due to their role within the occupational setting. Specifically, clinicians may be more likely to view a patient as a “whole” person, including their flaws, than non-clinicians. Non-clinical staff may be more likely to have a superficial view of patients, particularly ones who are exhibiting obvious trauma,

which results in their psychological distress. Perhaps the education in coping and self-care, which is more likely to be taught to clinical staff will be helpful to the non-clinical staff, as well.

One interesting finding in this study was the differentiation between cognitive and emotional empathy in STS. Specifically, public mental health workers who reported that they were more likely to take another's perspective, either in fictional or non-fictional, also indicated higher degrees of psychological distress. Perhaps the cognitive ability to take another's perspective is similar to the re-experiencing of another's trauma, which is indicative of STS.

Finally, another interesting result found in this study relates to the role of the self in relationship to humor and STS. Specifically, public mental healthcare workers who disparage either themselves or others were more likely to report psychological distress. Perhaps a clue to this finding can be found in Freud's original theory of humor, in which he posited that humor is a therapeutic defense to one's own distress. Perhaps both clinicians and laypersons may find that attempting to disparage either oneself or another is a sign that their coping skills have been taxed.

CHAPTER VI: REFERENCES

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CHAPTER VII: APPENDICES

Appendix A

Approval to survey participants at ADMHS



COUNTY OF SANTA BARBARA
Making a Difference Since 1962
 Alcohol, Drug & Mental Health Services
 Administration
 300 North San Antonio Road, Bldg.3, Santa Barbara, CA 93110-1332
 Telephone: (805) 681-5220 Facsimile: (805) 681-5262

Takashi Wada, MD
 Interim Director

To: Antioch University Santa Barbara
 Institutional Review Board
 602 Anacapa St
 Santa Barbara, CA 93101

I am writing to provide my support for Michelle Greenspoon Barrett, MA Doctoral Student at Antioch University Santa Barbara, to conduct her research study at the Alcohol Drug & Mental Services Department of the County of Santa Barbara. Mrs. Barrett's study is limited to the following parameters: she will be surveying employees and volunteers only (i.e., no clients of ADMHS will be surveyed for her research study); and, no individuals under the age of 18 will be surveyed for this study.

I am aware that this research study will be an online survey, and am permitting Mrs. Barrett to disseminate her request for participants via email. All surveys collected by Mrs. Barrett must be confidential.

Finally, this research study will only be accepted to run at ADMHS, County of Santa Barbara, if it is accepted by the Antioch University Santa Barbara Institutional Review Board.

Sincerely,

Andrew Vespe, LCSW
 Regional Manager
 County of Santa Barbara
 Alcohol Drug and Mental Health Services

Michael Craft, MFT
 Assistant Director
 Clinical Operations

Ole Behrendtsen, MD
 Medical Director
 Assistant Director

Lindsay Walter
 Interim CFO
 Finance

Chris Ribeiro
 Interim CFO
 Finance

Appendix B

Informed Consent

**CONSENT FORM**

A quantitative analysis of the relationship between both humor and empathy in the workplace to assess the risk of secondary traumatic stress on mental health clinicians in a public healthcare setting

You are invited to be in a research study designed to find out more the relationship between humor, empathy, and secondary trauma in the workplace. You were selected as a possible participant because you are a staff member, intern, or extra help staff of ADMHS, County of Santa Barbara. We ask that you read this screen and contact the principal investigator with any questions you may have before agreeing to be in the study.

The primary investigator of this study is Mrs. Michelle Barrett, MA, a Doctoral student in Clinical Psychology at Antioch University Santa Barbara.

Background Information

The purpose of this study is to find out more about how the use of humor and/or empathy are factors that aid in the resilience to secondary trauma. The study will provide researchers with

a better estimate of the types of coping mechanisms individuals use and their attitudes about their own self efficacy in the workplace.

Procedures:

If you agree to be in this study, you will be given a series of questions to answer. This process should take about 20-30 minutes, and is anonymous.

Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with either ADMHS or Antioch University Santa Barbara. If you decide to participate, **you are free to not answer any question**, but an honest response will provide us with a better sense of varying degrees of coping and empathy and your attitudes about interpersonal humor. You are also free to withdraw at any time with out affecting your relationships with ADMHS and Antioch University Santa Barbara.

Risks and Benefits of being in the Study

The risks to participating in this study are no more than are encountered in everyday life, though you may experience fatigue during or after your participation. You may also feel uncomfortable answering certain questions during this study. If you feel like you would like to talk to someone after completing this study due to the questions asked of you during this study please feel free to contact the principal investigator, Michelle Barrett (mbarrett2@antioch.edu), and she will contact you as soon as possible.

There are no direct benefits from participation in this study. The indirect benefits are the information obtained from this study may inform investigators and clinicians attitudes toward psychological issues.

Confidentiality:

The records of this study will be kept private. In any sort of report we might publish, we will not include any information that will make it possible to identify a participant. Research records will be stored securely and only researchers will have access to these records.

There is no risk of confidentiality, as all responses will be de-identified. Specifically, data collected that is entered directly into the computer will contain no identifying information such as your name or email. Information from the questionnaires will be entered directly into a computer into a database that will be de-identified to protect confidentiality.

Contacts and Questions:

The researcher conducting this study is: Michelle Barrett, MA (Doctoral Student) at Antioch University Santa Barbara. You may email questions to her research address prior to taking this survey (mbarrett2@antioch.edu). If you have questions later, **you are encouraged** to contact Michelle Barrett.

If you have any questions or concerns regarding your rights as a participant and would like to talk to someone other than the researcher, **you are encouraged** to contact Dr. Sharleen O'Brien, IRB Committee Chair, at (805) 962-8179 x-5309

You are encouraged to print out a copy of this consent form for your records

Statement of Consent:

<p>I have read the above information. If I have questions I will ask the principal investigator, and I know how to contact them. I consent to participate in the study. Check here: _____</p>

Appendix C

Table 2
Correlations Matrix

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Total STSS	1	.157	.106	-.075	.064	.063	-.103	-.059	-.005	-.118	.025	.469**	.129	.389**	.167	.208
2. 35-44 yrs	.157	1	-.281*	-.304	.047	.077	-.018	-.169	-.050	-.148	-.074	-.090	.044	-.013	.112	-.193
3. 45-54 yrs	.106	-.281*	1	-.428	.019	.135	-.061	-.212	-.115	-.134	.119	.033	-.092	.188	-.134	.290*
				**												
4. 55+	-.075	-.304*	-.428	1	.447**	.297*	.077	.481	.012	.099	-.073	.183	.049	-.281*	.021	-.352**
			**					**								
5. Time at ADMHS	.064	.047	.019	.477	1	.699*	-.022	.142	-.083	-.034	-.085	.030	.126	-.116	.041	-.226
			**													
6. Time in MH	.063	.077	.135	.297*	.699**	1	-.293	.110	-.112	-.079	-.072	-.033	-.083	.027	-.090	-.268*
				*												
7. Non-Clinical	-.103	-.018	-.061	.077	-.022	-.293	1	.111	.121	.239	-.010	-.054	-.083	-.284*	.022	.109
						*										
8. Male	-.059	-.169	-.212	.481	.142	.110	.049	1	.111	.121	.239	.369**	-.183	-.207	-.319*	-.009
			**													
9. Affiliative Humor	-.005	-.050	-.115	.012	-.083	-.112	.010	.111	1	.403	.360	.400**	.106	.045	.179	-.159
										**	**					
10. Self-Enhancing Humor	-.118	-.148	-.134	.099	-.034	-.079	-.060	.121	.403	1	.240	.328*	.057	.146	.061	-.103
								**								
11. Aggressive Humor	.025	-.074	.119	-.073	-.085	-.072	-.010	.239	.360	.240	1	.482**	-.315*	.022	-.211	.227

									**							
12. Self-Defeating Humor	.469 **	-.090	.033	.183	.030	-.033	-.054	.369 **	.400 **	.328*	.482**	1	-.208	.028	-.083	.191
13. Perspective Taking Empathy	.129	.044	-.092	.049	.126	-.083	-.083	-.183	.106	.057	-.315*	-.208	1	.084	.411* *	-.173
14. Fantasy-type empathy	.389 **	-.013	.188	-.281 *	-.116	.027	-.284 *	-.207	.045	.146	.022	.028	.084	1	.290*	.194
15. Empathic Concern	.167	.112	-.134	.021	.041	-.090	.022	-.319 *	.179	.061	-.211	-.083	.411**	.290*	1	-.078
16. Personal Distress Empathy	.208	-.193	-.290*	-.352 **	-.226	-.268 *	.109	-.009	-.159	-.103	.227	.191	-.173	.194	-.078	1

**Correlation is significant at the .01 level (2-tailed)

*Correlation is significant at the .05 level (2-tailed)