A STUDY OF DAILY STRESS AND ANGER EXPRESSION IN MENTAL HEALTH PROVIDERS

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I am submitting herewith a thesis written by Kerri Burchwell entitled "A Study of Daily Stress and Anger Expression in Mental Health Providers." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Psychology.

Samuel Fung, Ph.D., Major Professor

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A STUDY OF
DAILY STRESS AND ANGER EXPRESSION
IN MENTAL HEALTH PROVIDERS

A Thesis

Presented for the

Master of Arts

Degree

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ABSTRACT

This study focused on daily stress and anger expression in mental health providers. It was hypothesized that mental health providers who experienced high frequency and intensity of daily stress would also experience higher levels of state and trait anger. Sixty-seven subjects participated from area mental health facilities. Results did not support the hypothesis. However, results did indicate a positive relationship in the frequency and intensity of daily stress with the expression of anger. A negative relationship was shown between the intensity of daily stress and one's control over the expression of anger.

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CHAPTER 1

Literature Review

Stress is often thought to be associated with the onset or exacerbation of many illnesses. Several studies have investigated the relationship of major life events (e.g., deaths and divorce) and illnesses (e.g., asthma, arthritis, and migraine headaches) and have found some significance. For example, Rabkin and Struening (1976) had navy personnel report the major life events and illnesses they experienced over a ten year period. Results indicated those who reported few major life events experienced good health over the next year and those who reported many major life events experienced illnesses. Recent studies have focused on minor stressful events (e.g., procrastination and arguments) since they have been found to be sensitive indicators of stress. DeLongis, Coyne, Dakof, Folkman, and Lazarus (1982) showed a low order positive correlation between major events and somatic illnesses, while a stronger positive correlation was shown between frequency and intensity of daily hassles to somatic illnesses. Many stress instruments require the respondent to indicate which minor stressors have occurred over the past month. Other stress instruments ask the respondent to rate any major life events which have occurred during the past year (Brantley & Jones, 1989).

Stress and Health

Goreczny, Brantley, Buss, and Waters (1988) had airway obstruction patients monitor the severity of daily

respiratory symptoms along with measures of daily anxiety and stress. Daily stress was measured by the Daily Stress Inventory (Brantley, Waggoner, Jones, & Rappaport, 1987), while anxiety was measured with the State Trait Anxiety Inventory (Spielberger, Gorsuch, & Lushene, 1970). Results indicated that the stressors and their impact were related to asthma symptom severity, however no relationship was found with anxiety. Results also indicated a relationship between stress and chronic obstructive pulmonary disease.

Levor, Cohen, Naliboff, McAarthur and Heuser (1986) requested migraine patients to monitor daily headaches, physical activity, and minor stressful events over a four week period. Significant findings indicated more stressful events occurred on the day of onset of a headache as compared to days preceding a headache free day. The results also indicated that along with more stressful events, the days before headaches did not include much physical activity. Therefore, the researchers concluded that a migraine was the result of a multi-day cycle of more stressful events and less physical activity.

Stress, Anger, and Health

Stress along with anger expression factors have also been studied in relation to illnesses. In a national survey, African Americans who indicated high levels of outward anger expression during the time of a "severe personal problem" had a significantly higher number of

health problems (Johnson & Broman, 1987). Broman, Johnson, Lansing, and Arbor (1988) found both anger expression and number of negative life events were independently related to the greater number of health problems (e.g., arthritis, ulcers, circulatory problems, hypertension). Therefore they concluded, anger may be an associated risk for health problems in two ways: alone or by its relation to negative life events.

Other studies concerning stress have focused on anger expression in adolescents and college students. With adolescents, Compas, Malcarne, and Fondacaro (1988) found that problem-solving and emotion-focused coping strategies were used in response to academic and interpersonal stressors. They also found self-reports of coping strategies correlated with parents' reports of emotional and behavioral problems.

Hains (1992) examined adolescent boys' coping skills in dealing with stress and other negative emotions. Results indicated that those who received coping skills training showed significant reductions in state and trait anxiety, state anger, anger expression, and depression scores. These results were maintained at an eleven week follow-up. Therefore, educating adolescents in coping skills may help them deal more effectively with stressful and negative situations (Compas,1987; Johnson, 1986).

Smith and Frohm (1985) used the Cook and Medley Hostility Scale (Cook & Medley, 1954) with college males and females. They found that high scores on the Hostility Scale were associated with self-reports of more negative life events, more daily hassles, fewer and less satisfying social supports, more experiences of anger, and more negativism.

Stress and Occupations

When looking at stress related to occupations, several studies have extensively examined how stress impacts job production, burnout, and relations among co-workers. Cobb and Rose (1973) found that air traffic controllers had higher incidences and were at greater risk of hypertension, peptic ulcers, and diabetes mellitus than second class airmen due to more stress on the job. In another example using the Cook and Medley Hostility Scale, Houston and Kelly (1989) found that women employed outside the home, who obtained higher scores, indicated more stressful experiences in their jobs. They also tended to have less social support from husbands and supervisors, were inclined to outwardly express anger, and felt more daily stress and tension.

In order to examine stress more closely in the workplace, Norvell, Walden, Gettelman, and Murrin (1993) looked at stress and physical symptoms reported by child-welfare workers. The results indicated an increased level of perceived stress and a greater number of physical symptoms were related to the tendency to suppress angry

feelings. The authors concluded employers should focus on interventions dealing with anger expression when addressing stress. Anger was emphasized as a critical factor which could influence the way individuals experience stress by decreasing their ability to think objectively and cope adaptively with daily situations.

As indicated, daily stressors can impact an individual's life from physical illnesses to anger expression. Research has indicated that human service professionals and those in the "helping professions" experience moderate levels of stress (Jayarantne & Chess, 1984). Oberlander (1990) examined work environment variables (e.g., community, demography, occupational level, and amount of time in direct service with the seriously mentally ill) and their relationship with work satisfaction (e.g., job satisfaction, occupation-related stress, number of available coping mechanisms, training, and community satisfaction). Results indicated that work environment variables were related to work satisfaction. Other findings indicated rural service providers and urban professionals, independent of occupational level, and who work with the seriously mentally ill, tend to have a low level of perceived work satisfaction. Overall results indicated staff who work primarily with the severely mentally ill experience relatively lower levels of satisfaction and relatively higher stress levels than those who do not work

with this group.

Deutsch (1984) examined stressors self-reported by psychotherapists. Reports from psychotherapists in various settings and with different educational backgrounds showed similar stressful events for therapists. These stressful events included suicidal statements, expression of anger toward the therapist, and a client's premature termination. Some client characteristics (e.g., severely depressed, apathetic, and unmotivated) were also noted as being stressful for therapists. The least stressful events included crying clients, lack of gratitude, and negative stereotypes toward therapists held by the community.

Research has also shown a relationship between a therapist's flexibility or rigidity and stress related to the therapeutic role (Hellman, Morrison, & Abramowitz, 1987). Therapists who tended to be rigid in their actions and to blur personal boundaries with clients were more vulnerable to stress regarding their patients, whereas those therapists who were flexible and maintained personal boundaries seemed less vulnerable to stress.

The research represented throughout this review shows stress as having a relationship with health, anger expression, and occupations. These relations indicate as stress levels increase so do physical symptoms, anger expression, and job related problems and vice versa.

The current study examined mental health providers and

the relationship between their daily stress and anger expression. A mental health provider was defined as someone who provides psychological treatment such as a psychologist, psychiatrist, nurse, or a social worker. Daily stress was defined by the Daily Stress Inventory (DSI) (Brantley & Jones, 1989) as a subjective experience which is based on the impact of daily minor "annoying" events. This Inventory allowed the measure of daily stressful events over the past twenty-four hour period, whereas other minor hassle scales cover the previous month. State and trait anger were defined by Spielberger (1991) the developer of the State-Trait Anger Expression Inventory (STAXI), with state anger referring to an emotional state which depends on a subjective event and can vary from mild to intense, while trait anger refers to a disposition in dealing with several annoyances over time. In other terms, state anger is an emotional reaction which is temporally bound to a specific situation. Trait anger refers to a characteristic of an individual who tends to respond to situations in a set manner (Averill, 1982). The person with high trait anger will tend to respond with high levels of state anger when problems arise (Spielberger, 1991).

This study hypothesized that mental health providers who experience higher levels of daily stress would also have higher levels of state and trait anger. Specifically, this

study focused on the correlation of intensity and frequency of daily stress and levels of state and trait anger.

CHAPTER 2

Methods

Subjects

Participants were 67 (23 males, 41 females, and 3 were not reported) mental health providers from the Harriet Cohn Mental Health Center of Clarksville, Tennessee, the Rivendell Psychiatric Hospital of Bowling Green, Kentucky, the Cumberland Hall Psychiatric Hospital , the Pennyroyal Mental Health Center, the Pennyroyal Child and Adolescent Center, and the Western State Hospital of Hopkinsville, Kentucky. The majority of the participants were in the age range of 31-50, had a master's degree, and were psychologists. The subjects participated on a volunteer basis and no incentives were given for participation.

Materials

Two questionnaires, the Daily Stress Inventory (DSI) and the State Trait Anger Expression Inventory (STAXI), were administered. The Daily Stress Inventory, as formulated by Brantley & Jones (1989), includes 58 items which are designed to measure frequency and intensity of minor stressful events. Daily stress was defined as a subjective experience which is based on the impact of daily minor "annoying" events. An example of such a daily annoyance is arguing with a spouse, the inability to complete a task, hearing some bad news, or experiencing financial troubles. Respondents were to indicate which minor events had occurred and their intensity over the last twenty-four hour

period. Stress intensity was measured by a seven point Likert scale, from 1 (occurred but was not stressful) to 7 (caused me to panic). This scale has three scores: (1) the Event score is the number of items rated as having occurred within the last twenty-four hours; (2) the Impact score is the sum of the perceived stress ratings assigned to the items; (3) the Average Impact rating is calculated by dividing the Impact score by the Event Score (Brantley & Jones, 1993). High ratings indicate high stress while low ratings indicate low stress. Chronbach alpha coefficients were found to be .83 for Event scores and .87 for Impact scores, indicating the items on the Inventory are similar to each other and sampled from a homogeneous behavior domain. Concerning generalizability across time, coefficients (.46 and .26) indicate any single day's Impact or Average score is a poor predictor of another day's score, meaning these scores are not stable (Brantley, Waggoner, Jones & Rappaport, 1987). Convergent validity was indicated from DSI scores and endocrine measures (r>.50) (Brantley, McKnight, Jones, Dietz, & Tulley, 1988). Concurrent validity was indicated with the DSI and the Hassles and Uplifts Scale by correlations ranging from .33 to .57. This suggests that the monthly averages of DSI scores are related to the monthly scores of the Hassles and Uplifts Scale (Brantley et al., 1987). Construct validity, was indicated in the research by Brantley, Cocke, Jones, and Goreczny

(1988) when individuals who worked showed higher levels of stress during the workday than on weekends. These significant differences concerning the days of the week were shown for the Event score ($\underline{M}$ = 13.29 and $\underline{M}$ = 10.59, respectively), the Impact score ($\underline{M}$ = 31.79, and $\underline{M}$ = 23.24, respectively), but not the Average Impact score ($\underline{M}$ = 2.28 and $\underline{M}$ = 2.04, respectively).

The State-Trait Anger Expression Inventory, as formulated by Spielberger (1991) is a 44-item inventory which forms six scales and two subscales. For analyses, only three of the scales will be utilized: State Anger (S-Anger), Trait Anger (T-Anger), and Anger Expression (AX/EX). State anger refers to a temporary emotional state which depends on a subjective event and can vary from mild to intense, while trait anger refers to a disposition in dealing with several annoyances over time. Those with high trait anger tend to experience state anger more frequently and intensely than those with low trait anger. The State Anger scale (S-Anger) is a 10-item scale which measures the intensity of anger during a specific time period. The Trait Anger scale (T-Anger) is a 10-item scale which measures a predisposition for experiencing anger. The Anger Expression scale (AX/EX) is a research scale and indicates a general index of anger expression, unrelated to direction of

Alpha coefficients indicated for the State and Trait scales range from .83 to .93. Reliability for the Anger Expression scale is based upon three scales: Anger-In, Anger-Out, and Anger-Control ranging from .73 to .85 (Spielberger, 1991). Validity was shown through correlations of the State, Trait, and Anger expression scales and other measures of hostility and personality (Spielberger, 1991). Significant correlations ranged from .21 to .73.

Procedures

Each subject was asked to complete a folder consisting of four parts. These folders were distributed to staff mailboxes with a letter (see Appendix A) explaining the contents and requesting participation. The first part included an informed consent statement (see Appendix B), which after being signed was to be placed into a sealed envelope. This sealed envelope was placed in a separate box from the folders, which contained the questionnaires. The second part was the demographic information sheet (see Appendix C), the third part was the Daily Stress Inventory, and the fourth part was the State-Trait Anger Expression Inventory . The questionnaires were anonymous and no identification was requested other than the demographic information.

CHAPTER 3

RESULTS

This study specifically hypothesized that mental health providers who experienced high frequency and intensity of daily stress would also experience higher levels of state and trait anger. There was no significance indicated concerning frequency of daily stress with state or trait anger (see Table 1).

Table 1

Correlation of the Frequency of Daily Stress and Anger

Anger	r	p
State Anger	-.013	.920
Trait Anger	.146	.239

However, further analysis indicated a positive correlation between frequency of daily stress and Anger Expression (AX/EX) scores (r = .319, p < .008). As the amount of daily stressors increased so did the experience of intense, angry feelings, or vice versa. The experience of these feelings may be suppressed, expressed, or both. Another positive correlation was shown with frequency and Anger Out (AX/OUT) scores (r = .265, p <.030). This correlation indicates a relationship between increased frequency of daily stress and external expression of anger toward a person or object, either physical or verbal.

Table 2 indicates no significance concerning the

intensity of daily stress with state or trait anger.

Table 2

Correlation of the Intensity of Daily Stress and Anger

Anger	r	p
State Anger	.054	.667
Trait Anger	.155	.210

Once again, further analysis indicated a positive correlation between intensity of daily stress and Anger Expression (AX/EX) scores (r = .345, p < .004). Therefore, as the intensity of stress increases so does the experience of intense angry feelings, or vice versa. This expression can be externalized, suppressed, or both. Another positive correlation was indicated between the intensity of daily stress and the Anger Out (AX/OUT) scores (r = .272, p < .026). This correlation indicates a relationship between the intensity of daily stress and the experience of anger in either a physical or verbal manner toward a person or object.

A negative correlation was also found between the intensity of daily stress and Anger Control (AX/CON) scores (r = -.238, p < .052). As the intensity of daily stress increased, the individual's control over the expression of anger decreased, or vice versa.

It should be noted these scores [Anger Expression

(AX/EX), Anger Out (Ax/Out), and Anger Control (AX/CON)] represent factors of Trait Anger. Trait anger refers to a characteristic way of responding to situations over time, the expression (suppressed or external) and the control over anger shapes the disposition.

Chapter 4

Discussion

This study hypothesized that mental health providers who experienced higher levels of daily stress would also have higher levels of state and trait angers. Specifically, the focus was on the frequency and intensity of daily stress with levels of state and trait anger. The results of this study did not support the hypotheses.

Certain factors may be considered as causal for the results. These factors could include a small sample size and the number of days for stress ratings.

Concerning sample size, six different mental health facilities were used for this study. Return rate for the 150 questionnaires was less than fifty percent. Future studies may want to go directly into staff meetings to gain participants rather than by mailing letters. Incentives for participation should also be considered.

Participants in this study were only requested to rate stress for one day. Brantley, Waggoner, Jones, and Rappaport (1987) have shown any single day's impact score or average score is a poor predictor of another day's score, meaning the scores are not stable. Therefore, it may be beneficial for future researchers to have participants rate five days in one week and an average of a weekly rating of stress. This weekly rating may allow a more accurate view of the individual's stress level. The weekend should not be included as a rating day, since individuals who work have

shown higher levels of stress during the workday rather than on weekends (Brantley, et al., 1988).

Although the hypothesis was not supported, a positive relationship was found between the frequency and intensity of daily stress with the experience of anger and also the outward expression of anger. A negative relationship was also indicated with the intensity of daily stress and the control over the experience of anger expression. The individual who is experiencing high frequencies and intensities of daily stress may tend to express angry feelings through outward expression, or vice versa. Also, those with intense stressful events may not be able to maintain control over the expression of anger. Therefore, future research may want to focus on anger expression rather only than state and trait angers.

Anger expression can be characterized through the externalizing or suppressing experience of anger. Trait anger, a disposition to respond to situations in a specific way, is formed through the expression and control over anger. Future researchers may want to examine personality characteristics which may influence one's expression of anger. In addition, researchers may want to investigate the suppression or expression of anger in mental health providers who deal with different populations (e.g., adolescents, elderly, severely disabled, or alcohol/drug abuse). It may also be beneficial to look into other

stressful professions, such as law enforcement, fire fighting, teaching, or politics.

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APPENDICES

APPENDIX A

Dear Mental Health Provider,

I am a graduate student currently conducting my master's thesis at Austin Peay State University. I have completed a clinical internship at the Pennyroyal Center and a school psychology internship at the Christian County Board of Education. I am requesting your participation in completing the following questionnaires.

After signing the informed consent statement, place it in the envelope and seal it. Upon completion of this folder, return it to the designated box near your mailbox. The sealed envelope, containing the informed consent statement, will need to be placed in a separate box, so that no identifying information is with the questionnaires.

Thank you for your cooperation and participation.

Sincerely,

Kerri Burchwell

APPENDIX B

INFORMED CONSENT STATEMENT

The purpose of this investigation is to examine the relationships of daily stress and anger expression. Your responses are confidential. At no time will you be identified nor will anyone other than the investigator have access to your responses. There are no potential hazards that may occur from your participation. The demographic information collected will be used only for purposes of analysis. Your participation is completely voluntary.

Thank you for your cooperation.

I agree to participate in the present study being conducted under the supervision of a faculty member of the Department of Psychology at Austin Peay State University. I have been informed, either orally or in writing or both, about the procedures to be followed and about any discomforts or risks which may be involved. I understand I am free to terminate my participation at any time without penalty or prejudice and to have all data obtained from me withdrawn from the study and destroyed.

_____
Name (Please Print)

_____
Signature

_____
Date

APPENDIX C

PERSONAL INFORMATION

Please check the appropriate box:

Gender: ( ) male ( ) female

Age: ( ) under 30 ( ) 31 - 50 ( ) over 50

Educational Level: ( ) high school ( )bachelor's

( ) master's ( ) doctorate

Job Title: _____