

**HURRICANE KATRINA PROJECT FINDINGS
THE FOUNDATION FOR HUMAN ENRICHMENT
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Of the 272 Catholic Charities staff that participated in an initial psychoeducational session, about three quarters were female and one-quarter male, and ranged in age from 21 to 79. Forty nine percent were White, 39% were Black or of African descent, 4% were Hispanic and the remainder were American Indian, Native Hawaiian or Pacific Islander, or of mixed ethnicity. One hundred and ten (40%) of the 272 CC staff chose to participate in further SE/TFA individual treatment sessions, while 162 (60%) chose to receive no additional treatment.

DATA COLLECTION

Data were collected using three data collection instruments. Form 1 serves as a pre-test and provides a description of the characteristics and symptoms of all 272 Catholic Charities (CC) Staff who completed Form 1 immediately prior to participating in a group psychoeducational session. A second form, was used to assess the SE/TFA interventions used during each treatment session. A 3-4 month follow-up was conducted using an assessment form identical to form 1 (with 2 additional questions), and was completed either by CC staff or SE practitioners who interviewed CC staff.

DATA ANALYSES

- Frequencies were run on all the variables to clean the data and examine variable distributions and potential univariate outliers.
- Principal component analyses were run to ensure that items intended for use in scaled measures combined to form both a statistically and substantively meaningful construct.
- Scales were created and the alpha reliabilities of each was assessed. These scales provided measures of coping, physical and psychological symptoms, PTSD, and resiliency for each person.
- Propensity Score Matching (PSM) was used to match individuals that chose no additional SE treatments to those that did. This method provides treatment and comparison groups that are similar demographically and symptomatically.
- SE/TFA treatment effects were examined by comparing the treatment and comparison groups on the measures of coping, physical and psychological symptoms, PTSD, and resiliency, using Analysis of Variance (ANOVA) with post-hoc comparisons.

SYMPTOMS BEFORE TREATMENT REPORTED BY THE 272 CC STAFF

Before receiving treatment, CC Staff reported remarkably high levels of physical, emotional and PTSD symptoms, as well as diminished coping responses shortly after the hurricane.

Coping: Four questions measured individual's coping reactions in the past two weeks

- 59% reported moderate to very much change in their ability to handle other stressful situations
- 59% reported moderate to very much interference with how they take care of their physical

health

- 45% reported moderate to very much interference with their ability to work or carry out daily activities to their usual standards
- 54% reported moderate to very much effect on their relationships with their family, friends and community

Symptoms: Eighteen questions measured individual's feelings, emotions, thoughts or sensations experienced in the past two weeks

- 35% reported experiencing a pounding heart; 12% reported it as quite to extremely intense
- 23% reported experiencing chest pains; 7% reported it as quite to extremely intense
- 46% reported experiencing an upset stomach; 24% reported it as quite to extremely intense
- 50% reported experiencing a change in appetite; 29% reported it as quite to extremely intense
- 56% reported experiencing muscle tension or pain; 32% reported it as quite to extremely intense
- 38% reported experiencing frequent headaches or migraine headaches; 20% reported it as quite to extremely intense
- 15% reported increased use of alcohol or other drugs; 10% reported it as quite to extremely intense
- 21% reported experiencing difficulty with vision; 9% reported it as quite to extremely intense
- 13% reported experiencing weakness in limbs; 7% reported it as quite to extremely intense
- 9% reported experiencing desperate or suicidal thoughts; 3% reported it as quite to extremely intense
- 65% reported feeling exhaustion; 42% reported it as quite to extremely intense
- 43% reported experiencing confusion; 22% reported it as quite to extremely intense
- 10% reported feeling numbness or being shut down; 10% reported it as quite to extremely intense
- 48% reported feeling anxious; 29% reported it as quite to extremely intense
- 22% reported feeling panicky or afraid; 12% reported it as quite to extremely intense
- 56% reported feeling sad; 31% reported it as quite to extremely intense
- 35% reported feeling a sense of guilt; 16% reported it as quite to extremely intense
- 38% reported experiencing mood swings; 23% reported it as quite to extremely intense

Post Traumatic Stress Disorder (PTSD): Seventeen questions measured symptoms associated with PTSD. The PCL-C was used (a standardized instrument) for the assessment.

- 23% reported experiencing moderate to extreme repeated, disturbing memories, thoughts or images of the hurricane
- 6% reported experiencing moderate to extreme repeated, disturbing dreams about the hurricane
- 9% reported experiencing moderate to extreme sudden feelings or acting as if it was happening again (as if reliving it)
- 25% reported feeling moderate to extreme upset with something that reminded them of the

hurricane

- 15% reported experiencing moderate to extreme physical reactions when something reminded them of the hurricane
- 24% reported experiencing moderate to extreme avoidance of thinking, talking about or having related feelings to the hurricane
- 15% reported experiencing moderate to extreme avoidance of activities or situations because they reminded them of the hurricane
- 13% reported experiencing moderate to extreme trouble remembering important parts of the experience
- 26% reported experiencing moderate to extreme loss of interest in activities they used to enjoy
- 34% reported experiencing moderate to extreme feelings of being distant or cut off from other people
- 17% reported experiencing moderate to extreme feelings of being emotionally numb or being unable to have loving feelings for those close to them
- 20% reported experiencing moderate to extreme feelings that their future will be cut short
- 32% reported experiencing moderate to extreme trouble falling or staying asleep
- 25% reported experiencing moderate or extreme feelings of being irritable or having angry outbursts
- 35% reported experiencing moderate or extreme difficulty concentrating
- 21% reported experiencing moderate or extreme feelings of being “super-alert”, watchful or on guard
- 23% reported experiencing moderate or extreme feelings of being jumpy or easily startled

Resiliency: Seven questions measured resiliency in the past two weeks:

- 69% reported a sense of humor sometimes to most of the time
- 56% reported relaxed breathing sometimes to most of the time
- 78% reported smiling sometimes to most of the time
- 73% reported feeling hopeful sometimes to most of the time
- 62% reported feeling peaceful sometimes to most of the time
- 44% reported feeling well rested sometimes to most of the time
- 72% reported a positive mood sometimes to most of the time

SIGNIFICANT DIFFERENCES BETWEEN THE MATCHED TREATMENT AND COMPARISON GROUPS AT FOLLOW-UP

Among the 142 Catholic Charities staff that were included in the treatment (91 cases) and comparison (51 cases) group analyses, significant differences were found at follow-up three months later in reported levels of psychological symptoms, PTSD and resiliency. No significant differences were found between the treatment and comparison groups at follow-up in reported coping or level of physical symptoms. Findings are reported for the 142 CC Staff that either chose treatment or were selected as a comparison group match, and who had no missing data on form 1.

The treatment group reported significantly less severe PTSD symptoms at follow-up than the comparison group.

The treatment group average score change between pre-treatment (Mean 1.83) and follow-up (Mean 1.38) was -0.45, indicating a reduction in reported PTSD symptoms. The comparison group change was -0.06, indicating a smaller reduction in reported PTSD symptoms between pre-treatment (Mean 1.76) and follow-up (Mean 1.70). This difference was significant at the .001 level.

The treatment group reported increased resiliency at follow-up, while the comparison group reported decreased resiliency at follow-up. These differences were significant.

The treatment group average score change between pre-treatment (Mean 3.14) and follow-up (Mean 3.84) was 0.69, indicating an increase in reported resiliency. The comparison group change was -0.26, indicating a decrease in reported resiliency between pre-treatment (Mean 3.25) and follow-up (Mean 2.99). This difference was significant at the >.001 level.

Both the treatment and comparison groups reported increased psychological symptoms at follow-up. However, the treatment group reported significantly lower levels of psychological symptoms than the comparison group at follow-up.

The treatment group average score change between pre-treatment (Mean 1.43) and follow-up (Mean 1.52) was .10, indicating an increase in reported psychological symptoms. The comparison group change was .50, indicating a greater increase in reported psychological symptoms between pre-treatment (Mean 1.18) and follow-up (Mean 1.67) compared to the treatment group. The difference was significant at the .025 level.

It is not unusual for symptoms to increase in the months following a disaster due to “disruption effects” such as job loss, family fragmentation, relocation, disillusionment with government and insurance agencies, and fear of a repeat disaster. The upcoming hurricane season was also a factor that most likely contributed to heightened fears and anxiety.

SUBGROUP DIFFERENCES IN RESPONSE TO TREATMENT

Because the propensity scoring controlled for demographic and symptom differences at intake, it is not possible to examine the control variables (gender, education, site, and symptom scores) for treatment effect differences.

Age was the only demographic that was not used in the propensity scoring. The analysis showed significant age subgroup differences. The findings indicate that younger staff experienced a greater treatment effect than their older counterparts.

There were significant differences in PTSD change scores between staff ages 22 to 39 and those 55 and older, and between staff ages 40 to 54 and those 55 and older. Staff in the two youngest groups showed significantly greater reductions in the PTSD levels (as measured by change scores) than those in the oldest group. There were no significant differences between the two youngest age groups.

Did the number of SE/TFA treatment sessions effect the treatment response (was their a dose effect)?

No significant differences were found between people who received 1 individual SE treatment or 2 or more individual SE/TFA treatments in changes in their levels of psychological symptoms, PTSD or resiliency. This may be because most participants received both sessions in the same week. Had the sessions been spread out over two or more weeks there may have been a dosage effect.

IMPLICATIONS:

The study makes an important contribution to the disaster response field. First, it is a test of an integrative (mind-body) model that focuses on the somatic as well as cognitive and emotional consequences of a traumatic event. To our knowledge, there is no existing research on integrative approaches to treating disaster victims; this study is a beginning effort in this area. Secondly, it is a test of early and brief intervention. In disaster and other emergency settings it is often difficult, if not impossible, to provide more than a single session. This study's results suggest that it is possible to provide stabilization in 1-2 sessions. A third strength of the study is the inclusion of resiliency data. Trauma studies seldom assess resiliency even though increased resiliency is likely to be a goal of many interventions.

In terms of clinical implications, the study results suggest that integrative, brief models such as SE/TFA, that incorporate "bottom-up", self-regulatory approaches to trauma, have promise. These treatment models, oriented as they are to instinctive and biological responses to threat, may be potent additions to the field of disaster treatment.

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