Preliminary Validation of the Emotional Numbing Scale with Three Ethnic Groups
Christina R. Theodore-Oklota1, Jonathan K. Lee1, Peter M. Vernig2, Jane Luterek2, and Susan M. Orsillo1
1Acceptance, Mindfulness, and Emotion Lab, Suffolk University, Boston, Massachusetts
2VA Puget Sound Health Care System

Introduction
Interest in the role of emotional numbing in the development and maintenance of Post Traumatic Stress Disorder (PTSD) has increased in recent years (e.g., Tull & Roemer, 2003). The DSM-IV Criterion C for PTSD defines emotional numbing as comprising of “markedly diminished interest or participation in significant activities, feelings of detachment or estrangement from others, restricted range of affect, and/or a sense of a foreboding of future” (American Psychiatric Association, 2000). Although early theorists discussed the possibility that emotional numbing may reduce reactivity to both positive and negative stimuli, recent research has documented that emotional numbing has the greatest impact on positive emotions (Amir, Liberson, & Liberson, 2004; Litz, Orsillo, Kabuspeck, & Waashears, 2000; Orsillo, Balten Plumb, Luterek, & Roesser, 2004; Yoshishama & Horrocks, 2005). Moreover, the evidence suggests that trauma-encouraged individuals who report emotional numbing experience more frequent and intense negative affect (Litz & Gray, 2002; Orsillo et al., 2004).

Although research on emotional numbing has grown in the past several decades, the development of psychometrically sound methods of measuring this construct has lagged behind. The Emotional Reactivity and Numbing Scale (ERNS) is one such attempt to assess emotional responsivity to situations thought to elicit positive emotions, anger, sadness and fear. It has demonstrated strong reliability and validity when tested with a European American veteran sample. We hope that future research utilizing the ERNS will allow clinicians to better understand the differences in emotional reactivity and numbing reported by the three ethnic groups through examining the internal consistency and the mean differences in scores.

Method
Participants
Participants included 575 (403 female and 172 male) undergraduate college students at a large mid-Atlantic university who participated for course credit as part of a larger unrelated study. Ages ranged from 17 to 67 (M = 19.94, SD = 1.86). The ethnic composition of the sample consisted of Caucasians (N = 410), African Americans (N = 117), and Asian Americans (N = 48).

The Emotional Reactivity and Numbing Scale
Items of the Emotional Reactivity and Numbing Scale (ERNS) were generated by drawing from the theoretical and empirical literature on emotional numbing and PTSD and from clinical experience with victims of a wide variety of traumas. Items were created specifically to address any potential deficits in emotional experience and not individual differences in the ability to express or experience emotions.

The ERNS consists of 62 items describing the emotional response one might experience in reaction to an event or experience. Participants are asked to rate each item on a five-point Likert scale ranging from 1 (entirely atypical of me) to 5 (entirely typical of me). Items are classified into the following five subscales: positive (26 items) sad (12 items) anger (10 items) fear (7 items), and general (8 items). A higher score on a subscale denotes greater emotional numbing whereas a lower score indicates emotional reactivity.

Results
Descriptive Statistics and Internal Consistency
Table 1-3 presents the means, standard deviations, and internal consistency for the ERNS full scale and five subscales by ethnic group. Chronbach’s alpha for full scale and subscales ranged from .69 to .89 indicating good reliability.

MANOVA
Following the hypothesis that ethnicity would have an effect on reports of emotional reactivity and numbing, a one-way ANOVA was conducted with ethnic group as the independent variable. MANOVA results indicated there was a significant effect of ethnicity on ERNS score, Wilks’ Lambda = .949, F(2, 572) = 2.53, p = .003. Follow-up univariate analyses revealed a significant main effect for ethnicity on two scales: ERNS Full Scale (F(2, 572) = 4.37, p = .013) and ERNS Positive Subscale (F(2, 572) = 4.19, p = .017). Specifically, Bonferroni post hoc tests revealed that on the ERNS Full Scale and the Positive subscale, Asian Americans reported significantly more emotional numbing than Caucasians.

Table 2 - Means, Standard Deviations, and Internal Consistency for ERNS for African Americans

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>α</th>
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<tbody>
<tr>
<td>Full Scale</td>
<td>246.92</td>
<td>27.53</td>
<td>.96</td>
</tr>
<tr>
<td>Positive</td>
<td>107.91</td>
<td>12.89</td>
<td>.92</td>
</tr>
<tr>
<td>Sad</td>
<td>48.34</td>
<td>7.33</td>
<td>.86</td>
</tr>
<tr>
<td>Fear</td>
<td>21.62</td>
<td>4.07</td>
<td>.80</td>
</tr>
<tr>
<td>General</td>
<td>32.72</td>
<td>5.01</td>
<td>.75</td>
</tr>
</tbody>
</table>

Table 3 - Means, Standard Deviations, and Internal Consistency for ERNS for Asian Americans

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Scale</td>
<td>245.88</td>
<td>30.68</td>
<td>.93</td>
</tr>
<tr>
<td>Positive</td>
<td>103.79</td>
<td>13.80</td>
<td>.89</td>
</tr>
<tr>
<td>Sad</td>
<td>48.29</td>
<td>6.99</td>
<td>.85</td>
</tr>
<tr>
<td>Fear</td>
<td>35.92</td>
<td>6.05</td>
<td>.76</td>
</tr>
<tr>
<td>General</td>
<td>31.75</td>
<td>4.70</td>
<td>.69</td>
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Discussion
Our findings suggest that the ERNS demonstrates good internal consistency across these ethnic groups suggesting this measure would be useful to investigate the construct of emotional reactivity and numbing in diverse populations. The finding that Asian-Americans report more numbing compared to Caucasians is consistent with other reports in the cultural literature that suggests that Asians are socialized to be more reserved when reporting emotional experiences (Massert & Klayman, 1991). However, it is still unclear whether this is reflective of true emotional distress or an artifact of differences in cultural responding styles. It suggests that when the ERNS is used with Asian populations, multiple methods of assessment should be used to get a more accurate picture of their emotional experience.

One limitation of our study is the use of an undergraduate population to assess emotional numbing / reactivity. It is difficult to determine if the restricted range of ages contributed to an age specific pattern of scores. Future research should investigate the role of age in emotional numbing and reactivity. Additionally, in our sample, the role of ethnic diversity was ethically diverse, there was still an over representation of female participants. Furthermore, although the ERNS has been shown to have good test-retest reliability, convergent validity, and discriminant validity in a Caucasian sample (Orsillo et al., in preparation), these psychometric properties have not been explored in ethnically diverse populations. Further research with larger, more diverse populations is needed to expand upon the current findings.

We hope that future research utilizing the ERNS will allow clinicians and researchers to gain a better understanding of the complex and diverse emotional difficulties that impairs those with PTSD specifically investigating the ethnic differences in emotional numbing and reactivity.

References

Christina Theodore Oklota
Department of Psychology
Suffolk University
41 Temple Street
Boston, MA 02114
Email correspondence may be addressed to christina.theodore-oklota@suffolk.edu.

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