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Abbreviated Posttraumatic Stress Screen for Ethnically Diverse Older Women

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Abstract

It is difficult for busy health care providers to perform routine screening for older women's posttraumatic stress symptomatology, due, at least partially, to a paucity of instruments specifically tested on such a population. To address this issue, in this preliminary study we tested an abbreviated screen from the set of 20 items comprising the Distressing Event Questionnaire (DEQ; Kubany, Leisen, Kaplan, & Kelly, 2000) on a convenience sample of 94 ethnically diverse older women (ages 52–105). This new 5-item derivation, named "Brief Posttraumatic Stress Screening Scale (BPSSS)", assesses posttraumatic stress based on the Diagnostic and Statistical Manual of Mental Disorders - IV (DSM-IV; American Psychiatric Association, 1994). Its conciseness reduces the likelihood that older women would become fatigued during assessment, making it ideal for use in busy health care settings. Because the BPSSS has only five items, a single factor was hypothesized to account for a large proportion of the variance in its items, in view of the hypothesized cohesiveness of the tool's five items. We also expected that scores on the screen would correlate (to a certain extent) with those on measures of depression and perceived stress of a non-traumatic and non-medical nature. A standardized alpha of .86 demonstrated high internal consistency of the BPSSS and the exploratory factor analysis showed that one factor accounted for 58% of the five items' variance. Moreover, the correlations of BPSSS scores with scores on non-traumatic stress and depression were moderate yet significant ($r = .37, p < .01$ and $r = .50, p < .01$, respectively).

Keywords

instrument development; psychometrics; PTSD; stress; ethnic minorities

There is a need to develop short screens for medical and mental health providers working in busy health care settings, including emergency rooms, primary care facilities, and mental health clinics. In regard to posttraumatic stress symptomatology, such a need is underscored by the fact that only a small amount of people with PTSD is actually diagnosed with the disorder within primary care (e.g., Taubman-Ben-Ari, Rabinowitz, Feldman, & Vaturi, 2001) and psychiatric inpatient settings (e.g., Escalona, Tupler, Saur, Krishnan, & Davidson,

1997). Researchers such as Kessler, Sonnega, Bromet, Hughes, and Nelson (1995) have reported that PTSD is a condition that often persists for many years, further highlighting the clinical urgency of this topic. According to van Zelst, de Beurs, Beekman, van Dyck, & Deeg (2006), the effects of subthreshold and full PTSD syndromes are almost identical in terms of higher utilization of health care facilities, as well as impaired functioning and well-being. Although scholars have investigated PTSD since its inclusion into the DSM - III in 1980, Averill and Beck (2000) described its prevalence in community-dwelling older adults as basically unknown. Since then, van Zelst et al. (2006) found that the 6-month prevalence of PTSD in community-based, Dutch older adults (age 55–85) was 2.0% (.9 when weighted back to the population of the Netherlands), with “sub-threshold” prevalence being a high 17.4% in their sample (13.1% in the general population of Dutch older adults). In the United States, researchers have reported that the rate of PTSD in older adults exposed to traumatic events is between 5% and 11% (e.g., Hyer & Sohnle, 2001).

The above PTSD estimates are somewhat inconclusive, and may not apply to ethnically diverse older women, who are the focus of this study. In an attempt to contribute to the scarce psychometric literature on PTSD in our target population, we examined the preliminary reliability and (within the limitations imposed by the small number of questions contained in the tool) factor structure of a brief self-report screen—derived from a longer measure, as specified later, and designed to quickly assess posttraumatic stress symptomatology. Due to space limitations, this article discusses only some types of traumas to which older adults may be exposed. Readers who are interested in this topic are referred to literature such as Averill and Beck’s (2000) conceptual review of PTSD in older age and to Hyer and Sohnle (2001)’s book on trauma among older adults. To minimize redundancies, we used the terms “PTSD symptomatology” and “posttraumatic stress symptomatology” interchangeably, and did the same for “non-traumatic stress” and “perceived stress.”

In the present study, we focused on PTSD symptomatology among women and not men because, regardless of age, women tend to perceive stressors as being more severe than men, according to researchers such as Charles and Almeida (2007). They also appear to be more vulnerable to PTSD than men: in this regard, according to a National Comorbidity Survey (NCS), among Americans aged 15 to 54 years, the actual lifetime prevalence of PTSD is 5% in men and 10% in women, even though men are more likely (60%) to be exposed to traumatic events than women (51%; Kessler et al., 1995). Moreover, women often experience qualitatively different types of potentially traumatic stressors than men (Whealin, Zinzow, Salstrom, & Jackson, 2007). The most common ones are rape, sexual molestation, physical attack, being threatened with a weapon, childhood physical abuse, and sexual assault (Kessler et al., 1995; Koss & Harvey, 1991; Whealin & Jackson, 2002).

The salience of conducting research on PTSD symptomatology among older women in particular is underscored by a variety of factors. For instance, researchers have discovered that the population in question is more typically viewed as having depression, anxiety or poor physical health instead of PTSD (e.g., Franco, 2007). Thus, it is critical to examine the degree of overlap between older women’s symptoms of PTSD and other kinds of symptomatology such as depression and non-traumatic stress beyond health status, as was

done in the present study. PTSD and depression have some symptom features in common, as further pointed out in the discussion section, and are highly interrelated in the literature (e.g., Galovski, Blanchard, Malta, & Freidenberg, 2003; Michael et al., 1999; Zlotnick, Warshaw, Shea, & Keller, 1997). Regarding the relationship of PTSD symptomatology to stress of a non-traumatic and non-medical nature, although Kessler et al. (1995) identified substantial comorbidity between PTSD and other anxiety disorders that could originate from a variety of stressors, we were unable to find any empirical evidence on the specific relationship in question. Also, most of the geriatric PTSD literature is mainly representative of veteran populations and covers primarily men. For example, women comprised only 2.5% of Frueh, Grubaugh, & Acerno's (2007) sample of combat veterans. Cook, Elhai and Arean's (2005) geriatric study on primary care patients is one of the very few investigations that included a significant number of women (who represented 63.6% of the total sample). Some PTSD studies did not include women at all (e.g., Davis, Moye, & Karel, 2002's study on older veterans). Overall, the empirical evidence in this area is hardly generalizable to community-dwelling older women from diverse ethnic backgrounds.

With the above considerations in mind, it is time to develop an easy-to-use posttraumatic stress screen for health providers working with our target population. Although structured clinical interviews can be highly effective diagnostic tools, they are time-consuming. Conversely, studies on self-report PTSD measures have demonstrated that using such tools allows clinicians to gather relatively efficient and inexpensive information about respondents' symptoms. Clinical data from these assessment tools can also be obtained within a context that is not influenced by direct interaction with an interviewer (Newman, Kaloupek, & Keane, 1996). However, even though there are several self-report tools for PTSD available, many of them are exceedingly difficult to read for the layperson and far too lengthy for use with older adults, as briefly illustrated below.

According to a review of assessment of PTSD in older adults by Cook and O'Donnell (2005), only two tools have been validated for use with non-veteran community-dwelling older adults: the Self-Rating Inventory for PTSD (SRIP; van Zelst et al., 2003) and the PTSD Checklist - Civilian (PCL - C; Cook et al., 2005). Research on the Self-Rating Inventory for PTSD (SRIP; van Zelst et al., 2003) included older adults in its sample (age 55 – 90). Yet, the length of this tool, which contains 22 items, makes it less likely to be used in fast-paced health care settings. Additionally, the PCL – C, a long tool at 17 items, has obtained good support for use with older adults who survived the 2004 Florida hurricane disasters (Schinka, Brown, Borenstein, & Mortimer, 2007), but Schinka et al. used an exclusively White sample. Other well-established tests, such as the PTSD Symptom Scale Self Report (PSS - S; Foa, Rigg, Dancu, & Rothbaum, 1993), the Modified PTSD Symptom Scale Self Report (MPSS - S; Falsetti, Resnick, Resnick, & Kilpatrick, 1993), the PTSD Checklist (PCL - C; Weathers, Litz, Herman, Juska, & Keane, 1993), the Penn Inventory (Hammerberg, 1992), the Dutch PTSD Scale (Hovens et al., 1993), and the Davidson Trauma Scale (DTS; Davidson et al., 1997) have similar limitations when used with older adults. The Distressing Event Questionnaire (DEQ; Kubany, Leisen, Kaplan, & Kelly, 2000) has demonstrated good psychometric properties but still, with 20 items, its length is somewhat cumbersome. One brief PTSD symptomatology measure named SPAN (Meltzer-Brody, Churchill, & Davidson, 1999) is a 4-item derivation from the 17-item DTS. Its

authors took the items with the highest degree of sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV), and diagnostic accuracy from the DTS and included them in the SPAN. However, the screen omits the key DSM criterion of re-experiencing the traumatic event that allows for full diagnostic capability.

In this pilot study, we intended to contribute to the scarce psychometric literature on posttraumatic stress symptomatology among ethnically diverse older women by exploring the psychometric properties of a new 5-item measure, the *Brief Posttraumatic Stress Screening Scale (BPSSS)*, in line with research conducted by Cook et al. (2005). Cook et al. are among the few scholars who investigated the feasibility of using a PTSD tool exclusively on older adults by successfully testing the psychometric properties of the PTSD Checklist (PCL - C) on older primary care patients. Following the above-mentioned example of Meltzer-Brody et al. (1999), we adopted a similar methodology for the selection of the final items comprising the BPSSS.

We hypothesized that the new screen would show strong internal consistency and planned on conducting an exploratory factor analysis; because the BPSSS has only five items, only one factor could emerge in a methodologically sound manner, according to Fabrigar, Wegener, MacCallum, and Strahan (1999). Through exploratory factor analyses, we wanted to find out whether such a single factor would account for a significant amount of variability in posttraumatic stress scores, reflecting the expected high intercorrelations of the five items. We also predicted that the screen's scores would correlate moderately with a measure of non-traumatic stress and more strongly with depressive symptomatology—given that PTSD and depression are highly correlated in the literature and share similar features in the DSM – IV. A more practical objective of this study was to test the feasibility of administering this screen to community-dwelling older women, exploring whether the somewhat delicate nature of PTSD-related questions would be upsetting to them, and whether they would even endorse any of the posttraumatic stress symptomatology covered in the screen, given that we did not recruit research participants with a PTSD diagnosis.

Methods

Sample Characteristics

This cross-sectional study included a total of 94 non-institutionalized older women. We targeted women residing in Los Angeles County—an excellent location for gathering a multicultural sample—and made a significant effort to include only individuals who resided outside of assisted care facilities. This choice allowed us to minimize the chances of recruiting women with severe cognitive impairments (often residing in such settings) while maximizing the sample's potential representativeness of community-dwelling older women. Research participants were recruited via purposive sampling to gather an ethnically diverse sample that included a mixture of socially isolated and socially active respondents by means such as printed and online research advertisements. We also posted fliers at locations including apartment complexes for seniors. Moreover, interviewers/research assistants discretely and respectfully approached older women at the end of church services as well as at stores and libraries, in an effort to maximize the inclusion of participants who were otherwise isolated and unlikely to become involved in research projects. It took over two

years to gather this sample; although modest, its size is more than adequate for a pilot investigation of this kind.

We chose the minimum age criterion of 50 as a reasonable value for the definition of the start of older adulthood, in accordance with the American Association of Retired Persons and the Center for Disease Control and Prevention. As shown in Table 1, participants' mean age was about 71, and half of the sample had an ethnic minority background. Income was normally distributed. The means and standard deviations for posttraumatic stress symptomatology, non-traumatic stress beyond health status and depression symptomatology were 3.68 and 4.01, 11.66 and 9.09, as well as 3.34 and 2.60, respectively.

We recruited only women who met all of the following criteria: 1) being at least 50 years of age; 2) being able to speak and understand English fluently (to avoid confounding research findings with participants' levels of acculturation); 3) living in a non-institutionalized setting (to minimize recruiting participants with dementia, thus maximizing recruitment of respondents who were cognitively high-functioning, overall); and 4) being able to provide informed consent.

Procedure

Briefly, interviewers assessed eligible respondents for 45 minutes to one hour individually in research participants' homes or at community locations such as libraries and senior centers, depending on their preference. To minimize fatigue and keep the study procedure as homogeneous as possible, we asked research assistants to read each question out loud to the participants and handwrite all answers, as well as to take a break in the middle of the assessment and then administer the rest of the battery. We paid special attention to being flexible in scheduling assessment sessions that occurred at locations chosen by the older women, to ensure that they were comfortable with all aspects of this project. Interviewers were both gender- and ethnically-matched to them, to eliminate some of the common recruitment challenges (e.g., mistrust of academic projects and related fear of disclosure) often encountered when conducting ethnogeriatric research. Additionally, research assistants received extensive training not only in interviewing and assessment skills, but also in active listening and cultural competence. In regard to ethical considerations, this investigation was approved by the Institutional Review Board of California State University Northridge and involved only willing and able participants who had the right to withdraw from the project at any time, as specified in the consent form.

Clinical Assessment Battery

We used a brief *Demographics* list to assess variables including age, ethnic background, income, place of residence and marital status. The *Brief Posttraumatic Stress Screening Scale (BPSSS)* is a 5-item measure designed to screen for posttraumatic stress symptomatology by concisely assessing reactions within the past 30 days to the most distressing event/experience ever had, keeping in mind such worse experience while answering the five questions. Kubany, the main author of the DEQ, created the BPSSS at the National Center for PTSD and invited us to test it, given its potential to be an ideal screen for PTSD symptomatology among older women. Consultations with him addressed this

study's sample recruitment, as well as data collection and analyses. In accordance with his recommendations, the screen was named "Brief Posttraumatic Stress Screening Scale (BPSSS)" to reflect its focus on measuring posttraumatic stress related to an unspecified yet most distressing experience ever had. Kubany chose this tool's items for their highest correlations with the total score of the original DEQ measure (Kubany et al., 2000), as they were the five statistically best performing, i.e., most conducive to maintaining the identified cohesiveness among items. Figure 1 depicts the BPSSS. The first number after each item in the box represents the correlation of that item with the 20-item total symptom score on the DEQ in a sample of 255 physically and/or sexually abused women. The second number is the item's correlation with the total symptom score on the DEQ in a sample of 120 Vietnam combat veterans. Both these studies are described in Kubany and colleagues' (2000) article. All the research participants were able to answer this screen's questions without having overtly emotional reactions to it. The five items of the BPSSS cover current DSM - IV diagnostic criteria for PTSD symptomatology in the following way: items 1 and 2 correspond to Criterion B: Re-experiencing. Items 3 and 4 correspond to Criterion C: Avoidance/Numbing. Item 5 corresponds to Criterion D: Increased arousal.

The *SelfCARE (D)* assesses depressive symptomatology; this 12-item scale is a valid and reliable tool (Bird et al., 1987) utilized in many geriatric studies (e.g., Abas, Hotopf, & Prince, 2002; Banerjee, Shamash, Macdonald, & Mann, 1998). Bird et al. designed it specifically to measure depression among non-institutionalized older adults; thus, it is ideal for use in the present investigation. SelfCARE (D) scores range from 0 to 12; a score of 6 or higher is a sign of the presence of significant depression. Data analyses conducted by Bird et al. obtained a Kappa reliability score of .77, showing that this assessment tool is a reliable measure.

Lastly, the *Older Women's Perceived Stress beyond Health Status Scale* quantifies perception of stress of a non-traumatic and non-medical nature. This one-of-a-kind tool consists of nine items and has good reliability and validity (Prilutsky, 2006). It assesses self-reported stress experienced for each of the nine potential stressors targeted in the scale (such as emotional, financial or social strain related to death of spouse/companion). Non-traumatic stress is measured via ratings on a Likert-type scale, with scores ranging from 0 (*not at all stressful*) to 5 (*extremely stressful*). N/A is offered as an option for stressors not applicable to the individual respondent. Factor analytic analyses are currently in progress to further validate this tool (Laganà & Prilutsky, 2009). Overall, we tried to keep the battery length to a minimum, to decrease the likelihood of respondents dropping out of the study due to fatigue.

Results

We first computed descriptive statistics, summarized in Table 1 and briefly described earlier, and then examined the internal consistency of the BPSSS. We also conducted an exploratory factor analysis of the new screen and correlated its scale scores to those on non-traumatic stress and depressive symptomatology. An ANOVA—used to test the preliminary reliability of the BPSSS—demonstrated overall statistical significance, $F(4, 372) = 17.85, p < .0001$, leading to a strong internal consistency finding ($\alpha = .86$). Also, the item-total

statistics, illustrated in the Table 2, show that the five items correlated well with each other, yet not to the highest degree because they assess discrete symptoms. Upon calculating inter-item correlations, displayed in Table 3, we found significant relations on all five items ($p < .01$).

Next, we conducted a factor analysis, which was exploratory – rather than confirmatory – due to the uncertainty concerning the size of the factor loadings. As no clear consensus exists in regard to the desired ratio between the number of respondents and variables (see Fabrigar et al., 1999), our ratio of almost 20 research participants per item met or exceeded many such recommendations. Moreover, in an effort to identify the best simple structure via the examination of both pattern and structure matrices, we conducted an oblique rotation of the responses. Table 4 contains the factor loadings by pattern and structure matrices, as well as the eigenvalues along with the initial/observed communalities. In line with the recommendations offered by Fabrigar et al. (1999), we identified the number of factors in the screen based upon: (a) the observed eigenvalues and the corresponding proportion of variance accounted for; (b) the scree plot; (c) parallel analysis; and (d) the interpretability of the factors, as described below. Based upon such criteria—and in support of our hypothesis—we obtained a single factor with particular emphasis on symptoms consistent with anhedonia (loss of interest in previously important activities), detachment from others, and concentration difficulties.

Even though we concluded that a single factor solution is most consistent with our results, one could potentially argue that such findings are more consistent with a 2-factor solution instead although, as already mentioned, six, not five items, would be needed for a methodologically sound 2-factor solution (Fabrigar et al., 1999). To explain our choice succinctly, an inspection of both the pattern and structure matrices reveals that the first two items have low partial correlations (i.e., pattern matrix) with factor 1. That is, while their zero order correlation (i.e., structure matrix) with factor 1 is strong (.60, .67, respectively), much of that association can be attributed to the other items. Meanwhile, the first two items are also strongly correlated with a possible second factor, as indicated by the partial correlations of .92 and .61, respectively. In addition, such two items possess low cross-loadings with factor 1. Nevertheless, we also found that the two factors are highly correlated with one another (–.72), leaving open the possibility that either the two factors are redundant or that a higher order factor is present (Fabrigar et al., 1999). Given that a 2-factor solution is underdetermined (because there are fewer than three/four items per factor), and that the second obtained eigenvalue (.35) is much lower than one would expect from a dataset containing random responses to these same items (i.e., 1.1 in our parallel analysis), we argue in favor of a single factor solution.

The BPSSS scores were moderately related to non-traumatic stress scores, as revealed by a Pearson correlation analysis ($r = .37$) that was significant at the $p < .01$ level. There was a higher correlation, ascertained through the same method, between BPSSS and depression scores ($r = .50$, $p < .001$).

Discussion

First, a brief discussion of the findings concerning the overall scores on the new measure is in order: their mean is quite low. A possible reason for this result is that the population targeted herein is community-dwelling older women able to function independently. From a methodological standpoint, it would be cause for concern if the findings showed high mean of the PTSD scores, given that our sample did not come from a subject pool diagnosed with PTSD. Thus, the current results are consistent with the nature of the sample recruited. It should also be noted that difficulty concentrating—reported by some respondents and further discussed below—could be an indication of sub-clinical general declines in cognitive functioning. Given the age of the sample, it is possible that this was the case for some respondents (although not specifically assessed in this study), yet these women were still able to function independently and live outside of geriatric facilities; future studies should further examine this issue.

Our findings suggest good potential for using this tool in geriatric research and clinical practice. Data analyses revealed that the BPSSS has strong internal consistency—with a high Cronbach's alpha—and item-total statistics showed that deleting any of the items would not increase internal consistency significantly. A single factor—preliminarily named “posttraumatic symptomatology”—accounted for a large proportion of the variance in the screen's items. The application of the same factor analytic procedures to a clinical sample with a formal PTSD diagnosis might have produced different findings. This could be especially the case in regard to the first two items and to their loadings on Factor 1, with such loadings possibly being different for individuals with strong re-experiencing symptoms. Perhaps the single factor obtained reflects mostly depression and/or anxiety symptomatology in our respondents; we do not know whether they had experienced a traumatic event to keep in mind when answering the screen's questions, as further discussed later. It is possible that, because PTSD is not the only mental health outcome of trauma, some of our research participants did undergo prior traumatic experiences that were reflected in other sub-clinical psychopathology assessed by the last three items, with the factor analysis pointing to a single factor excluding re-experiencing. Prior research, such as Goenjian et al.'s (1994) aforementioned study on older adults affected by an earthquake in Armenia, suggests that older people exposed to potentially traumatic events report fewer intrusive thoughts (part of re-experiencing), but more hyperarousal symptoms than younger survivors. Thus, among older women traumatic event reactions might manifest not so much via re-experiencing, but more via other symptomatology. The above considerations are only speculative and need testing with larger samples using a measure of traumatic events, as further addressed in the discussion of the limitations of the present study.

There are indicative converging properties between the BPSSS and the two other measures, supporting the notion that this screen does tap into depressive symptomatology to a certain extent and, less strongly, into non-traumatic stress of a non-medical nature. Concerning the strong relationship found between symptoms of PTSD and depressive symptomatology, as pointed out by Owens, Baker, Kasckow, Ciesla, and Mohamed (2005), the presence of depression can complicate older adults' PTSD assessment process. Indeed, the similarities in the symptomatology of these two variables are likely to be at least partially responsible for

their strong association. To provide an example, one of the items in the screen inquires about respondents' loss of interest in previously important activities. Such a question satisfies the numbing criterion of PTSD; however, it is also indicative of the anhedonia experienced in depression. This supports prior literature indicating that older women with PTSD could easily be misdiagnosed as having major depression, because practitioners often fail to identify trauma as a critical part of their patients' clinical picture (Franco, 2007).

Regarding the relationship of non-traumatic stress with posttraumatic stress symptomatology, we hypothesized that BPSSS scores would be less related to non-traumatic stress scores than to depression ones. This is in line with the conceptualization of PTSD symptomatology as quite distinct from reactions to stressors corresponding to challenging—yet common—events faced by older women. There was a moderate and positive correlation between scores on the two stress-related measures, as expected—especially in view of Mol et al.'s (2005) non-geriatric findings that traumatic and non-traumatic experiences generate similar PTSD symptomatology. However, it is possible that, among older women in particular, reactions to frequently experienced stressful circumstances are not as comparable to reactions to traumatic events. This could be due to reasons such as older women's common resiliency to multiple stressors (Ryff, Singer, Dienberg Love, & Essex, 1998), with loss-related experiences—such as reduced income and widowhood—being on-time events for this population.

The present research, like many pilot psychometric studies, has a number of limitations. We did not include in the assessment battery either the original 20-item PTSD tool, i.e., the DEQ (Kubany et al., 2000) or another well-established PTSD instrument (e.g., the PCL - C; Cook et al., 2005). Instead, we focused on the screen's preliminary reliability and factor analysis issues, as well as on correlational analyses with related constructs. Such correlational findings offer only some preliminary convergent evidence, without substantiating the concurrent validity of the BPSSS. Although beyond the scope of this research, further examination of the screen's validity is certainly a necessary next step. In addition to examining the concurrent validity of the tool, future work needs to explore the divergent validity of the screen by examining the relationship between the BPSSS and constructs with which it is not expected to be related. Furthermore, we did not include older women with a formal PTSD diagnosis in our sample, unless this happened without planning it (which could not be verified). Testing whether the new screen could adequately differentiate between groups with and without PTSD is a critical methodological procedure for the assessment of discriminant validity. However, gathering such a clinical sample was well beyond the scope of this pilot study. Moreover, due to the limitations imposed by the sample size, we did not implement age-specific data analyses (given the wide age range of the sample) and did not conduct other types of analyses, such as measurement invariance. Also, because the screen contains only five items, it could have only had one factor if we consider that at least three/four items should load per factor, as is conventionally agreed upon. Yet, the one factor identified herein accounts for a sizable variance in scores on posttraumatic stress symptomatology, suggesting the suitability of using this screen with non-clinical populations of older women.

It should also be noted that the BPSSS includes only two of the three features required to fulfill criterion C: persistent avoidance of stimuli associated with the trauma; hence, it is not intended to comprehensively fulfill diagnostic criteria for PTSD. This is a limitation applicable to other previously mentioned screens, due to researchers' choice of sacrificing complete coverage of all diagnostic criteria to ensure brevity. Furthermore, a PTSD diagnosis is not given unless the symptoms in question impair the individual's ability to function in the social, occupation, or personal realm; the BPSSS does not cover this additional criterion. The traumatic event itself was not assessed: ideally, a standardized tool like the Traumatic Life Events Questionnaire (TLEQ; Kubany et al., 2000) should be used in conjunction with this screen. However, some researchers have found that the experience of DSM – IV-defined traumatic events is not needed for substantial PTSD symptomatology to be present (e.g., Mol et al., 2005), with events like suddenly having no source of income precipitating at least as many PTSD symptoms as traumatic events. Assessing the latter would have helped us interpret the factor analysis findings, but might not always work in a fast-paced medical setting, for a number of reasons. One reason is that administering a measure of traumatic events would lengthen the assessment procedure: saving time is often paramount in health care settings. Also, the delicate nature of questions included in traumatic event measures poses other kinds of challenges. Some older women, when asked to recall their lives' worse traumatic experience(s) in detail, could become upset or agitated. These circumstances should be avoided if at all possible, and there is definitely an ethical issue to consider when probing into delicate material without a definite reason to do so. In a fast-paced medical setting, it may be best to administer this screen first by itself. If the findings warrant further assessment, specific questions on the traumatic experience(s) could then be asked in a sensitive manner and in ways that best fit the situation.

In sum, our findings show that the new screen could be used without problems by medical health providers who have little time for a thorough PTSD assessment, but are concerned about the possibility of posttraumatic stress symptomatology having an adverse role in their patients' functioning. In the current study, community-dwelling, ethnically diverse older women without a PTSD diagnosis responded to this screen with ease; in particular, they did not have strong emotional reactions to it and showed some endorsement of the content of its five items. It is up to the individual clinician to use the information provided by this tool in the best possible way and choose the next assessment course accordingly.

This pilot study represents a first step in a future line of studies. Research is needed to determine a clinical cut-off score for this screen, so that scores at or beyond that value would indicate the presence of significant PTSD. The results of the current study offer promising yet preliminary convergent evidence; thus, an established PTSD tool should definitely be included in the test battery of future studies (together with a traumatic event measure, as previously discussed), so that researchers could compare the two sets of PTSD scores and ascertain that the BPSSS is in fact measuring the PTSD domain. Moreover, because we did not test discriminant validity (i.e., did not use a well-established tool expected to not be significantly correlated with PTSD), future research should address this psychometric issue. Follow-up studies could also be motivated by the fact that the selection of the screen's five items was based on the findings of two prior studies with adult men and women (Kubany et al., 2000), not with geriatric samples. It would be interesting to test whether the 5-item

selection based on the results of the item-total correlations obtained in the Kubany et al.'s research would be the same after replicating these studies with older adult samples. If not, the new tool could be revised accordingly. Moreover, the non-traumatic stress tool used herein is a relatively new measure currently undergoing further validity testing with a larger sample of ethnically diverse older women (Laganà & Prilutsky, 2009). Therefore, future studies aimed at testing the BPSSS should include a well-established measure of older adults' non-traumatic stress. Other research could explore the kind of PTSD best identified by the screen in question. Perhaps this tool, given its brevity and focus, could detect symptomatology related to one-time discrete traumatic events more accurately than complex chronic PTSD stemming, for instance, from traumatic childhood abuse. Assessing how long ago the traumatic event(s) occurred would also be helpful. Additionally, the use of self-report tools like the BPSSS in conjunction with alternative methods of assessing PTSD would increase diagnostic reliability and decrease mono-method operation bias. Ideally, pioneering—and costly—studies integrating biological and physiological measures of arousal (e.g., cortisol) with a self-report PTSD tool would greatly increase the likelihood of correctly diagnosing this condition in the neglected population in question.

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Brief Posttraumatic Stress Screening Scale

The purpose of this questionnaire is to evaluate your reactions to the worst or most distressing event or experience you have ever had.

The five items below ask about the degree to which you experienced 5 symptoms in the PAST MONTH (the LAST 30 DAYS, COUNTING TODAY).

0 = Absent or did not occur
 1 = Present to a slight degree
 2 = Present to a moderate degree
 3 = Present to a considerable degree
 4 = Present to an extreme or severe degree

1. ___ Distress or emotional upset when reminded of the event(s)? (.80, .89)

2. ___ Physical reactions when reminded of the event(s)? (such as sweaty palms, rapid breathing, pounding heart, dry mouth, nervous stomach, tense muscles) (.77, .90)

3. ___ Loss of interest in activities that had been important--such as loss of interest in your job, hobbies, sports, or social activities? (.77, .90)

4. ___ Feeling detached or cut off from others around you? (.80, .91)

5. ___ Difficulty concentrating? (.75, .87)

Figure 1.**Brief Posttraumatic Stress Screening Scale**

Note: The numbers in parentheses represent the correlation of each item with the total score on the DEQ from two studies (Kubany et al., 2000).

Table 1Demographic Characteristics of the Sample ($N = 94$)*Age: 52 – 105 ($M = 70.93$)*

Variable	Percentage
<i>Ethnicity</i>	
African-American	9.6
Armenian	8.5
Asian-American	8.5
Mexican-American	14.9
Other Hispanic/Latina	8.5
Caucasian	50
<i>Marital status</i>	
Single	5.3
Divorced	17.0
Married	39.4
Widowed	36.2
Living w/a significant other	1.1
<i>Income</i>	
Less than \$20,000	23.4
\$20,000 – \$39,000	21.3
\$40,000 plus	25.5
Declined to state	29.8

Table 2

Item-Total Statistics

Item	Type of posttraumatic stress symptom	Alpha if item deleted
1	Distress or emotional upset	.84
2	Physical reactions	.82
3	Loss of interest in activities	.84
4	Detachment from others	.83
5	Difficulty concentrating	.81

Table 3

Inter-Item Correlation Matrix

BPSSS	1	2	3	4	5
1	Pearson correlation	-			
2	Pearson correlation	.67*	-		
3	Pearson correlation	.41*	.51*	-	
4	Pearson correlation	.49*	.50*	.59*	-
5	Pearson correlation	.58*	.59*	.58*	.64*

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

Table 4

Factor Loadings

Loadings by Pattern (P) and Structure (S) matrices, percent variance, and communalities for factor analysis with oblimin rotation (N = 94)						
Item	Factor 1		Factor 2		Communalities	
	P	S	P	S	Initial Extraction	
Distress or emotional upset when reminded of the event(s)?	-.05	.60	-.92	-.88	.513	.769
Physical reactions when reminded of the event(s)?	.23	.67	-.61	-.77	.542	.624
Loss of interest in activities that <u>had been</u> important--such as loss of interest in your job, hobbies, sports, or social activities?	.79	.75	.05	-.51	.443	.560
Feeling detached or cut off from others around you?	.79	.79	-.01	-.57	.498	.628
Difficulty concentrating?	.63	.79	-.23	-.68	.554	.650
% Variance	57.55		7.06			
Rotated Eigenvalues	2.88		.353			