

Development, Use, and Psychometric Properties of the Trauma History Questionnaire

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The authors describe the development and psychometric properties of the widely used Trauma History Questionnaire (THQ). Additionally, they describe how the THQ has been used both nationally and internationally in a range of studies conducted in the past 14 years (1996–2010). The reviewed studies provide accumulated, although preliminary, evidence that the THQ is reliable and valid in clinical and nonclinical samples. Finally, the authors describe the strengths and limitations of the THQ and make specific recommendations for researchers and practitioners going forward.

Following the inclusion of posttraumatic stress disorder (PTSD) as a formal diagnosis in the DSM-III (American Psychiatric Association [APA], 1980) and the subsequent revision and refinement of the criteria in the DSM-III-R (APA, 1987) and DSM-IV (APA, 1994), numerous measures were developed as diagnostic or symptom-based instruments to assess PTSD for use in clinical and non-treatment-seeking populations (Foa, Riggs, Dancu, & Rothbaum, 1993; Hammarberg, 1992; Norris & Perilla, 1996; Vreven, Gudanowski, King, & King, 1995). Because early research often focused on specific populations with their own specific trauma measures (e.g., Vietnam War veterans

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or survivors of rape or natural disasters), less attention was given to general measurement of DSM Criterion A1, exposure to the traumatic experience initiating the disorder. However, in the 1990s, it became clear that over the course of a lifetime, most individuals are exposed to *multiple* events that are potential Criterion A1 stressors for PTSD (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995; Norris, 1992; Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993). This research involved the development of multiple instruments to assess this more general exposure, covering a range of events that may meet Criterion A1. Categories include interpersonal violence, accidents, life-threatening illness, traumatic loss, natural and human-made disasters, and other events. The types of trauma history instruments that have been generated include self-report inventories designed to identify events that will be explored in follow-up interviews, self-report questionnaires in which the respondent is asked to make a subjective assessment of the level of trauma experienced from exposure to specific events, and interview-based instruments.

The specific events of focus in these various measures have been a function of the researcher's line of research, his or her target population in the study for which the measure was developed, and his or her judgment as a trauma researcher. While many of these instruments do not completely lend themselves to the establishment of psychometric properties through traditional procedures (see below), most researchers have tried to show that their questionnaires are reproducible and related to similar data collected in other ways (i.e., reliable and valid). The Trauma History Questionnaire (THQ)—the focus of the current article—is one of the above-mentioned omnibus measures of trauma exposure. None of these instruments (reviewed in the next section) are necessarily better than others, although the THQ (Green, 1996) appears to be one of the most widely used of the available trauma history collection instruments.

Filling a gap in the clinical, assessment, and research literature base, the purpose of this article is to provide a review of the development of the THQ, to describe its use with various populations, to present findings from a recently conducted validity study, and to describe the THQ's psychometric properties based on research conducted by the developers and other investigators. This article will serve as a resource for the THQ and should be useful to clinicians and investigators who seek to use the instrument and for those who may want to extend its application. Prior to the discussion on the development of the THQ, we review other trauma history measures and their reported psychometric properties.

BACKGROUND: DIVERSE TRAUMA HISTORY MEASURES

Norris (1990) developed the Traumatic Stress Schedule (TSS), a measure consisting of 10 potentially traumatic events for use in a community sample,

which included an elaborative technique to elicit details in a follow-up interview. Vrana and Lauterbach (1994) developed the Traumatic Events Questionnaire (TEQ) for use with college students. This measure is based on 11 specific types of trauma reported in the DSM-III-R as potentially eliciting PTSD symptoms, along with an “other” category for unspecified events. Respondents to the TEQ are also asked to rank the level of trauma experienced in each event to generate a trauma intensity score (Crawford, Lang, & Laffaye, 2008). Similarly, the Traumatic Life Events Questionnaire (TLEQ) (Kubany, Haynes, et al., 2000), which assesses a broader range of potentially traumatic events such as stalking and witnessing family violence, asks the respondent to determine whether each event endorsed elicited “intense fear, helplessness, or horror,” Criterion A2 for PTSD. The Stressful Life Events Screening Questionnaire (SLESQ) (Goodman, Corcoran, Turner, Yuan, & Green, 1998) was designed as a self-report screening instrument to detect Criterion A1 stressors, to be followed by face-to-face diagnostic interviews. Because the objective of the measure was to detect Criterion A rather than subthreshold events, each of the 12 items in the SLESQ includes objective and subjective probes regarding age, perpetrators, whether life was in danger, and so forth.

In contrast, the Life Events Checklist (LEC) (Gray, Litz, Hsu, & Lombardo, 2004), designed to be used in conjunction with the Clinician Administered PTSD Scale (CAPS) (Weathers, Keane, & Davidson, 2001), is a simple listing of 17 events for which the respondent is required to check whether each item “happened to me,” was “witnessed,” or was “learned about.” A more recent instrument, the Lifetime Trauma and Victimization History (LTVH) (Widom, Dutton, Czaja, & DuMont, 2005), has been developed as a structured in-person interview consisting of 30 items covering seven categories of trauma and victimization experiences. The LTVH was designed for use in populations with low levels of education and known histories of trauma and victimization.

All of the above-mentioned questionnaires, and the items within them, have been subject to test-retest reliability assessments, with the same questionnaire being administered to the same participants on separate occasions. In some studies, convergent validity was assessed by comparing the results of the self-report questionnaire with the results of an interview using the same questionnaire. Although considerable variation was found in the reporting of specific items, temporal stability was found to be acceptable, and reasons for variation in reporting trauma history, either by self-report or in interview format, are discussed in detail by Goodman et al. (1998) for the SLESQ and by Kubany, Haynes, et al. (2000) for the TLEQ. For the LTVH (Widom et al., 2005), convergent validity was assessed by comparing items such as childhood physical abuse on different instruments (e.g., the LTVH and the Conflict Tactics Scale [Straus, 1979]).

For the TLEQ, discriminant validity was assessed by comparing the number of events that evoked intense fear, helplessness, or horror in participants with and without PTSD. For the TEQ, both the number of traumatic events and the trauma intensity of individual items have been assessed against measures of PTSD, depression, and anxiety (Crawford et al., 2008; Vrana & Lauterbach, 1994).

Both the TLEQ (with 57 citations) and the TEQ (with 51 citations) have been widely used in empirical research published in peer-reviewed journals, as has the THQ (with 94 citations). The THQ (Green, 1996), a self-report instrument, was developed to measure history of exposure to potentially traumatic events that may meet the A1 stressor criterion for PTSD. Researchers have employed the THQ in more than 60 non-overlapping published studies (see the reference list for a complete listing), with study populations including, but not limited to, residents of battered women's shelters (Humphreys, Lee, Neylan, & Marmar, 1999), people attending substance abuse clinics (Farley, Golding, Young, Mulligan, & Minkoff, 2004; Najavits, Gastfriend et al., 1998; Najavits, Weiss, & Shaw, 1999), police officers (Brunet et al., 2001; Neylan et al., 2002; Pole, Kulkarni, Bernstein, & Kaufmann, 2006), journalists in Iraq (Feinstein & Nicolson, 2005), Holocaust survivors (Yehuda, Halligan, & Grossman, 2001), adult survivors of childhood trauma and abuse (Hammersley et al., 2003; Heilemann, Kury, & Lee, 2005; Mueser et al., 2001; Sacks et al., 2008; Spertus, Yehuda, Wong, Halligan, & Seremetis, 2003), and people with life-threatening illnesses (Farley, Golding, & Minkoff, 2002; Green et al., 1998; Green, Krupnick et al., 2000; Spertus, Burns, Glenn, Loftland, & McCracken, 1999).

As with similar instruments (e.g., the TSS), the THQ was originally intended to be used in conjunction with an interview to elaborate upon the survey response. However, it has most often been used alone as a screening instrument. Because little has been published on the development and psychometric properties of the THQ, and research from various users has not thus far been aggregated, this article will serve as a central resource for clinicians and research investigators using the THQ.

DEVELOPMENT OF THE TRAUMA HISTORY QUESTIONNAIRE

The THQ was developed for use in a number of psychosocial research projects in Washington, D.C., in the Department of Psychiatry at Georgetown University. The instrument was designed to gather information via self-report from general, community, and clinical populations about lifetime exposure to a range of potentially traumatic events. The THQ is not undergirded by any specific theoretical orientation; however, it follows a model of dimensions of trauma developed by Bonnie L. Green (1993). It covers a broad range of events that could be considered potentially traumatic and that could,

therefore, meet Criterion A1 (the occurrence of a stressor) for a DSM-III-R and DSM-IV diagnosis of PTSD.

The THQ questions were developed based on a structured “high-magnitude” stressor events interview later modified for the DSM-IV field trials (the Potential Stressful Events Interview, or PSEI; Falsetti, Resnick, Kilpatrick, & Freedy, 1994; Kilpatrick et al., 1998). The THQ items follow the general recommendations of the Kilpatrick/Resnick group, which contended that studies should elicit information about the presence or absence of each specific event rather than simply asking an open-ended question about any traumatic exposure (Resnick, Falsetti, Kilpatrick, & Freedy, 1996). The THQ follows their recommendations to use neutral behavioral language. Additionally, the PSEI (Falsetti et al., 1994) served as a primary item generation source for the THQ. The PSEI was developed at the Medical University of South Carolina (Falsetti et al., 1994; Kilpatrick et al., 1998) to enhance studies of sexual victimization; however, it was deemed by the THQ authors to be sufficiently detailed and representative of a range of events likely to be defined as traumatic. Because the THQ was developed to be applicable to a variety of populations, the information obtained on sexual assault and military experience from the PSEI was reduced, but questions relating to crime victimization, accidents, disaster, exposure to chemicals, life threat, death of a spouse or child, life-threatening illness, and news of death or injury to another were retained. Questions about physical attack/abuse, intended to address child abuse and spouse battery, were expanded, and all items were converted to a self-report format. Lending support for content validity, the items on the THQ overlapped substantially with omnibus instruments being developed by other investigators to address a full range of potentially traumatic events without being overly detailed or intrusive for use with general/community/clinical populations.

The complete THQ is provided in the appendix. It consists of 24 yes/no questions addressing a range of trauma events in three unique areas: (a) crime-related events (e.g., robbery, mugging), (b) general disaster and trauma (e.g., injury, disaster, witnessing death), and (c) unwanted physical and sexual experiences. For each item, the subject indicates whether he or she experienced it and, if so, the number of times and approximate age(s) of occurrence. Specifics are requested for most of the questions (e.g., if someone was injured, who was it?). For the six sexual and physical trauma questions, the subject is asked whether the experience was repeated and, if so, approximately how often and at what age. Thus, items focus primarily on situations involving life threat, assaults to physical integrity, tragic/accidental loss of loved ones, and witnessing death or violence—that is, items with significant consensus regarding their trauma status (Green, 1993). Among the 24 items, there is one “other” question (“Have you experienced any other extraordinary stressful situation or event that is not covered? If yes, please specify.”). This allows subjects to report on personal

experiences that may have been unusually frightening or stressful but were not captured in the other 23 items. No assessment of the person's response (Criterion A2: intense fear, helplessness, or horror) is included.

ADMINISTRATION AND SCORING OF THE THQ

The THQ can be administered as a self-report instrument or in an interview format. The self-report paper-and-pencil format takes approximately 10 to 15 minutes to complete, while administering it as an interview takes approximately 15 to 20 minutes, depending upon the number and types of trauma-exposed events the person endorses. The THQ is a trauma history data collection instrument, not a test, so there is no standard scoring method; it has therefore been adapted and modified to meet the needs of the projects in which it has been employed. The 24-item THQ can generate a total score representing the numbers and types of events endorsed as well as subscale scores, calculated by summing items associated with crime-related events (4 items), general disaster and traumatic experiences (13 items), and physical and sexual experiences (6 items). As previously mentioned, one item allows for reports of traumatic experiences not covered in the other statements. While this item is usually not scored unless the response provided has information and relevance that may be appropriately scored under one of the other 23 items, information from this question can be used at the discretion of the investigator.

The most common scoring convention is to count the *number of types of events endorsed* and/or subscale scores breaking down the counts by event type. This convention appeals to investigators who are interested in the number of types of interpersonal or sexual traumas to which subjects have been exposed (e.g., Bonne et al., 2001; Brunet et al., 2001; Green, Goodman et al., 2000; Hammersley et al., 2003; Keogh, Ayers, & Francis, 2002; Mueser et al., 2001; Najavits, Weiss, Shaw, & Muenz, 1998; Neylan et al., 2002; Rosenberg, Rosenberg, Williamson, & Wolford, 2000; Rosenberg et al., 2001; Sacks et al., 2008; Shalev et al., 1998; Spertus et al., 2003; Yehuda, Blair, Labinsky, & Bierer, 2007; Yehuda, Schmeidler, Wainberg, Binder-Brynes, & Duvdevani, 1998; Zlotnick, Najavits, Rohsenow, & Johnson, 2003). In addition, others have used the THQ to capture the participant's "earliest, most recent, and most severe life events" (Yehuda, Halligan, Golier, Grossman, & Bierer, 2004, p. 389) or to delineate the participant's "most troublesome, disturbing, or distressing" experience (Brunet et al., 2001, p. 1481). In the latter study, Brunet and colleagues asked participants to select from the items endorsed on the THQ the event they found the most distressing, which served as the index event in their study. Others have used a small subset of events of interest in a particular study (sexual trauma and physical trauma; Green, Krupnick et al., 2000). Still other researchers have

dichotomized the total trauma score in order to classify participants into categories of “low trauma” and “high trauma” (see Spertus et al., 1999) or dichotomized the reported events into “low-magnitude” or “high-magnitude” events (see Yehuda et al., 1998) for the purposes of their particular study.

LOCATION OF STUDIES

To inform this overview of the use and psychometric properties of the THQ, we searched the following databases: PubMed, PsycINFO, Social Service Abstracts, National Institutes of Health Public Access, and the PILOTS database. The search procedure was to identify published articles whose titles or abstracts included a mention of the THQ. We performed hand searches of the *Journal of Traumatic Stress* and the *Journal of Loss and Trauma*. We also contacted select authors who are known to use the THQ regularly to uncover any in-press manuscripts that might be included in the current review. Finally, we wrote the corresponding authors of the articles identified by these methods to obtain additional work in the area of the psychometric properties or translation of the THQ that was unpublished or that may have been missed by our search. These procedures identified 60 unique studies (with many more published articles deriving from these studies) with usable information; they are noted in the reference section by an asterisk.

PSYCHOMETRIC PROPERTIES OF THE THQ

We recognize that the development and ongoing validation of an instrument is a complex process. Moreover, we concur with Hoyt, Warbasse, and Chu (2006) that the “nature of validity evidence will vary depending on the population and setting to which the researcher plans to apply the construct” (p. 771). In this section, we discuss the preliminary evidence related to the reliability and validity of the THQ that has accumulated over time.

Reliability

The concept of reliability is operationalized to mean that the data or results derived from scores of an instrument are reproducible (i.e., that measurements of individuals on different occasions, by different observers, and by similar parallel tests produce the same or similar results) (Cronbach & Meehl, 1955; Streiner & Norman, 2003). The initial THQ psychometric data were collected as part of a mail survey study composed of a convenience sample of 423 college students that served as a pilot for a later study (e.g., Green, Goodman et al., 2000; Green et al., 2005). From this larger pilot survey study, the THQ test-retest reliability study consisted of a subsample of 25 college-age women who had suffered a variety of traumas. Approximately

2–3 months after completion of the original mail survey, 25 women who were selected for interview based on their traumas filled out the THQ again prior to being interviewed for the primary study.

The results of the test-retest study revealed that the reporting of specific traumatic events (i.e., *yes this occurred at some point* vs. *no it never occurred*) was fair to excellent across administrations. Stability coefficients for specific events ranged from .51 (a close person killed) to .90 (attacked with a weapon) and .91 (robbed). Based on Cohen and Cohen's (1983) conventions of adequate reliability, coefficients of .70 or greater are considered acceptable. Not all of the items met this threshold and thus warrant a closer examination. Specifically, the items with the lowest reliability were "catch-all" or general categories (e.g., item 9 [other serious injury] and item 20 [other unwanted sex], both with correlations of .47). A few of the means shifted significantly on the second administration of the instrument. It was hypothesized that the shifts occurred primarily because (a) subjects who completed the instrument previously learned that the experiences they reported under one item would be subsumed under a more specific item or (b) additional experiences were recalled between administrations. The correlation for number of items endorsed across administrations was .70 (Green, 1996).

Other studies have included interrater reliability testing where the THQ has been used for the collection of trauma history by interview. At least one study was designed to assess trauma history on two separate occasions using trauma categories derived from the THQ (Mueser et al., 2001). Mueser and colleagues (2001) found moderate to high test-retest reliability for a range of traumatic events experienced over a lifetime in a psychometric evaluation of trauma and PTSD in persons with severe mental illness (i.e., an Axis 1 psychiatric diagnosis exclusive of PTSD symptoms or diagnosis). In their study, Mueser et al. used the following THQ events/categories: sexual abuse/assault, physical attack without a weapon, physical attack with a weapon, witnessing death or injury of another, car or work accident, natural or human-made disaster, life-threatening illness, close friend or relative killed by a drunken driver or murdered, and military combat. Participants included 30 primarily White psychiatric outpatients with severe mental illness. Two face-to-face interviews were conducted with each outpatient, one at baseline and one a mean of 17.1 ($SD=6.6$) days later. During both interviews, participants were asked to indicate whether they had been exposed to each of the THQ categories during their lifetime. Kappas for lifetime traumatic events that were present in at least 20% of participants ranged from .57 (physical attack without a weapon) to .89 (natural or human-made disaster). The kappas for childhood and adulthood sexual abuse/assault were .64 and .82, respectively. According to Fleiss's (1971) guidelines, kappas in the range of .40 to .60 are considered fair, those of .60 to .75 are good, and those above .75 are excellent. Thus, the kappa coefficients evidenced in this study are considered fair to excellent.

Interrater reliability was also assessed among the three study interviewers who conducted the assessments. All interviews were recorded, and 17 (57%) baseline audiotaped interviews were randomly selected for rating by one of the other interviewers. Interrater reliability for trauma categories present in at least 20% of study participants showed kappas in the excellent category, ranging from .76 for sexual assault to 1.00 for accidents and witnessing killing or serious injury.

One issue that arises with regard to trauma history measures is shifts in the use of categories and items. This may occur because people who remember and want to report events may report them in response to a different question than the one the investigator may have chosen, or may report them under one category at one time and another category at another time. The latter would reduce reliability based on specific questions but would support reliability more broadly. Given these issues, it is encouraging that the total number of event types reported has good test-retest reliability for the THQ, with figures in line with other instruments (Norris, 1990; Kubany, Haynes, et al., 2000; Vrana & Lauterbach, 1994); however, reliability is lower for individual items. Taken together, we believe these findings point to reliability/stability for the THQ in general and for most items. However, some items may need to be revised, modified, or even deleted from the THQ; the THQ authors have initiated a new project to revise the instrument, possibly creating a shorter version.

Validity

Several constructs contribute to the assessment of validity (Cronbach & Meehl, 1955). *Face validity* is subjectively determined by whether the instrument appears to be assessing the desired qualities based on a review of the instrument by one or more experts. *Content validity* is closely related to face validity and consists of a judgment of whether the instrument consists of items that include all relevant content or domains (Streiner & Norman, 2003). Face validity and content validity were addressed in the development of the THQ discussed earlier and are exemplified by the categories covering agreed-upon dimensions of traumatic events (Green, 1993), agreement among trauma instrument developers about which items/events are appropriately included in omnibus trauma inventories, having the THQ based on previously used measures, and its correspondence with DSM examples of Criterion A stressors. Other important types of validity include *construct validity* and *cultural validity*, which are described in the following sections.

CONSTRUCT VALIDITY: RELATIONSHIP TO OTHER MEASURES

Traditional statistical methods (e.g., exploratory factor analysis, confirmatory factor analysis) are not appropriate to establish internal consistency and

construct validity of the THQ, because it is not a scale in the traditional sense. For example, there are not strong reasons to hypothesize that people who experience one particular type of event would necessarily experience other specific events. This would be true for all such inventories. Thus, we approached construct validity from the perspective of agreement with other trauma history measures and prediction of expected outcomes. A small study at our center examined the extent to which the THQ produced similar findings as another trauma history collection tool that we developed, the SLESQ (Goodman et al., 1998). This study was conducted in the context of a large randomized depression treatment study (Miranda et al., 2003). In that study, low-income African American, Latino, and White women were screened and recruited for a depression treatment trial in social service and family planning settings. Women meeting full criteria for major depression were randomized to cognitive behavior therapy, antidepressant medication, or community mental health referral. All randomly assigned participants were evaluated by baseline telephone and clinical interviews and followed by telephone for 1 year. As part of that study, the investigators included the SLESQ (Goodman et al., 1998) to assess for exposure to traumatic events.

For a small subsample ($n = 18$) of the larger study sample, and prior to the baseline clinical interview, women participants completed the THQ. Participants were then interviewed with the SLESQ. Using Cohen's (1968) coefficient kappa statistics, responses were compared between the two sets of items. While not all of the items matched closely enough to be compared directly, we identified a priori nine items that we believed to be comparable (see Table 1 for a complete listing of items). For example, on the THQ, Item 15 reads "Have you ever had a serious or life-threatening illness?" compared to the SLESQ, where the similar Item 1 reads "Have you ever had a life-threatening illness?" The kappa coefficient for the two items was excellent ($\kappa = 1.00$). A second example is the comparison between the THQ Item 11 (i.e., "Have you ever seen someone seriously injured or killed?") as compared to the SLESQ Item 11 (i.e., "Have you ever been present when another person was killed, seriously injured, or sexually or physically assaulted?"). The kappa coefficient for these two items was also found to be acceptable ($\kappa = .72$). As illustrated in Table 1, comparison of six of the nine items generated Cohen's kappa coefficients in the good to excellent range ($\kappa = .61$ to $\kappa = 1.00$). These findings—albeit with a small sample—further contribute to previous findings related to the validity of the THQ, but at the same time (given the low to fair kappas for three items) suggest possible revision of some items on the THQ. Low kappas in this and some other studies with small sample sizes, in addition to other issues, may also be a function of baseline rates of some of the events being measured.

In another study, Humphreys et al. (1999) measured the extent to which trauma history (measured by the THQ) in a sample ($n = 50$) of sheltered battered women was robustly related to conflict exposure, as measured by the

TABLE 1 Kappa Scores for Comparisons Between Nine THQ and SLESQ Items.

Item no.	Item description	Kappa
THQ Item 1	Has anyone ever tried to take something directly from you by using force or the threat of force, such as a stick-up or mugging?	.45
SLESQ Item 3	Was physical force or a weapon ever used against you in a robbery or mugging?	
THQ Item 5	Have you ever had a serious accident at work, in a car, or somewhere else?	.13
SLESQ Item 2	Were you ever in a life-threatening accident?	
THQ Item 11	Have you ever seen someone seriously injured or killed?	.72*
SLESQ Item 11	Have you ever been present when another person was killed, seriously injured, or sexually or physically assaulted?	
THQ Item 13	Have you ever had a close friend or family member murdered, or killed by a drunk driver?	.67*
SLESQ Item 4	Has an immediate family member, romantic partner, or very close friend died as a result of accident, homicide, or suicide?	
THQ Item 15	Have you ever had a serious or life-threatening illness?	1.00*
SLESQ Item 1	Have you ever had a life-threatening illness?	
THQ Item 18	Has anyone ever made you have intercourse, oral or anal sex against your will?	.87*
SLESQ Item 5	When you were a child or more recently, did anyone (parent, other family member, romantic partner, stranger, or someone else) ever succeed in physically forcing you to have intercourse, or oral or anal sex against your wishes or when you were in some way helpless?	
THQ Item 19	Has anyone ever touched private parts of your body, or made you touch theirs, under force or threat?	.60*
SLESQ Item 7	Other than experiences described in Items 5–6, has anyone ever actually touched private parts of your body or made you touch theirs against your wishes, or when you were in some way helpless?	
THQ Item 20	Other than incidents mentioned in Questions 18 and 19, have there been any other situations in which another person tried to force you to have unwanted sexual contact?	.82*
SLESQ Item 6	Other than experiences described in Item 5, has anyone ever used physical force or threat to TRY to make you have intercourse, oral or anal sex, against your wishes or when you were in some way helpless?	
THQ Item 23	Has anyone in your family ever beaten, “spanked,” or pushed you hard enough to cause injury?	.33
SLESQ Item 9	Other than the experiences mentioned in Item 8, have you ever been kicked, beaten, slapped around, or otherwise physically harmed by a romantic partner, date, sibling, family member, stranger, or someone else?	

Note. THQ = Trauma History Questionnaire (Green, 1996); SLESQ = Stressful Life Events Questionnaire (Goodman, Corcoran, Turner, Yuan, & Green, 1998).

* $p < .05$.

Conflict Tactics Scale. As expected, study results showed a positive significant relation between THQ scores and conflict scores ($r = .46, p < .001$). This correlation is similar to those found between other trauma history instruments and conflict scores (e.g., the LTVH and the Conflict Tactics Scale).

CONSTRUCT VALIDITY: RELATIONSHIP WITH OUTCOMES

Evidence of construct validity is also established when scores of a scale or instrument are a good correlate or predictor of an outcome or criterion they are expected to relate to (e.g., psychological distress) or predict (e.g., PTSD). Predictive validity has been evaluated by correlating THQ items and PTSD symptoms, as measured by paper-and-pencil instruments or interviews (e.g., CAPS, CIDI, or PCL). Several studies buttress the theory-derived prediction that the THQ predicts PTSD. For example, Mueser et al. (1998) examined the extent to which lifetime trauma history, as measured by THQ scores, related to rates of PTSD, as measured by PTSD Checklist scores, in a sample of inpatients and outpatients ($n = 275$) with severe mental illness. In this study, the total number of traumas (Wald statistic [W] = 10.95, $p = .0009$) and type of trauma (sexual assault as a child) ($W = 8.15, p = .0043$) were significant predictors of PTSD in the overall sample. Additionally, there were gender differences evidenced in Mueser et al.'s study: Total number of traumas significantly predicted PTSD in the male sample (chi-square = 7.04, $p = .008$) only.

Lilly, Pole, Best, Metzler, and Marmar's (2009) study examining gender and PTSD in a sample of female police officers ($n = 281$) found that trauma history (as measured by the THQ) made a unique and statistically significant contribution to the variance in PTSD ($\beta = .16$). Other evidence for construct validity of the THQ is found in Pole and colleagues' study (2006) examining resilience in a small sample of retired police officers ($n = 21$). Pole et al. found that scores on the THQ were inversely related to resilience ($r = -.48, p < .05$) and mental health functioning ($r = -.56, p < .01$); as scores on the THQ increased, resilience and mental health functioning in the participants decreased.

In addition to the studies described above, numerous other studies have established the predictive power of the THQ. For example, other studies have reported on the relation between trauma history (as measured by the THQ) and PTSD symptomatology (Golier et al., 2003; Green, Krupnick et al., 2000; Najavits, Gastfriend et al., 1998; Spertus et al., 2003), depression (Spertus et al., 1999, 2003), and personality disorders (Golier et al., 2003). A few studies have found no relation between THQ scores and PTSD and other measurements of psychological distress (see Keogh et al., 2002). For example, Keogh found no significant relation between the THQ and PTSD symptoms in their sample of 40 women expecting their first child. There are many reasons that may account for negative findings between trauma

history and PTSD symptoms (e.g., small sample sizes, how PTSD symptoms are captured, memory or motivational factors, and the specificity and sensitivity of measurements of PTSD). Some of these factors may have impacted the results of Keogh and others' studies.

CULTURAL VALIDITY

Instruments are developed and tested on population samples that may be quite different from those in which the instrument is used in subsequent studies. For example, a questionnaire may be validated on a sample of college students and then used in studies of poor and less educated populations. The concept of cultural validity has therefore become an appropriate focus for consideration.

An example demonstrates the potential difficulty of achieving equivalence and invariance in the cross-cultural use of assessment instruments in different socioeconomic and racial and ethnic groups. In the SLESQ study with low-income African American women, the authors used qualitative assessment methods (i.e., focus groups, cognitive interviews, and reviews of videotaped SLESQ interviews) to establish preliminary cultural validity. The authors found with these qualitative methods that most items on the SLESQ were well understood and had similar meanings in diverse samples. However, there were a few differences in nominating and endorsing items as traumatic, possibly reflecting experiential differences among the women. There was also a difference in how women interpreted a question designed to identify "attempted rape." Consequently, the SLESQ was slightly modified for future use (Green, Chung, Daroowalla, Kaltman, & DeBenedictis, 2006).

The difficulty of achieving cultural validity may be amplified when translating instruments into other languages. In the Health-Related Quality of Life study (Herdman et al., 1998), researchers from Spain used a qualitative approach to achieving various types of cultural equivalence when adapting instruments for different cultures. Some other researchers applied this process to cross-cultural adaptation of the THQ. For example, a Brazilian group of researchers (Fizman, Cabizuca, Lanfredi, & Figueira, 2005) describe a six-stage process of translation and back-translation, performed independently by bilingual academics, both native Portuguese speakers and native English speakers, using an item-by-item analysis to achieve semantic equivalence; the process also involved synthesizing the two versions, pretesting in the target population, and then pilot testing the final instrument. In the Portuguese adaptation of the THQ, "risk of life" was used rather than "danger of death," and the examples of natural disasters in Brazil included "landslides" rather than "tornadoes."

In addition to Fizman et al.'s (2005) study, the THQ has been translated into Spanish (Heilemann, Lee, & Kury, 2002), Hebrew (Shalev et al., 1997;

Freedman et al., 2002), French, Japanese, Kurdish, and Vietnamese, though studies for the last four languages have not yet been published.

In sum, the THQ has been used in multiple clinical and nonclinical studies in the United States (Jobson & O’Kearney, 2008; Keogh et al., 2002; Maguire et al., 2008) as well as in non-English speaking countries. This indicates that the THQ is perceived to have cultural validity, even where it has not been subject to qualitative assessment. Finally, while claims related to the cultural validity of the THQ are preliminary, the trauma experiences in the THQ appear to be universal for the most part, and investigators see them as appropriate to the cultures of the diverse populations in which the THQ has been used.

DISCUSSION

The purpose of this article was to provide a comprehensive review and overview of the development of the THQ, to describe its use with various populations, and to describe its psychometric properties (i.e., reliability and validity) based on research conducted by the developers and other investigators. As described herein, the THQ has been used in numerous studies to describe the traumatic life history of clinical research samples and to examine the relationship between traumatic events and medical conditions, psychological distress, wellness, severe mental illness, substance use disorders, and personality disorders in a range of clinical and nonclinical populations. The substantial accumulated evidence suggests—at least preliminarily—that the THQ is relevant and adaptable to a wide range of populations, and it is beginning to accumulate evidence of sound psychometric properties.

Several characteristics and strengths of the THQ are noteworthy and may account for its wide use. It is relatively simple and short and relatively easy to comprehend, administer, and analyze, giving researchers and clinicians the potential to develop appropriate follow-up measures for their specific investigations. The empirical findings reviewed in this article describe the performance and psychometric soundness of the THQ and thus make the THQ a solid choice to capture trauma history. However, the THQ still has some noteworthy limitations.

Although studies have shown preliminary evidence of the THQ’s reliability and validity, evaluating construct validity is an important ongoing obligation of researchers, even for widely used instruments. Additionally, because reliability and validity are context dependent (Schmidt & Hunter, 2003), it is important to continue to accumulate evidence related to cultural validity and generalizability in studies of diverse populations. Researchers (e.g., Bravo, 2003) suggest that the validity and reliability of an instrument’s scores in one culture do not portend validity and reliability in another

culture. We recommend that researchers continue to examine the cross-cultural, linguistic, and translational equivalence of the THQ in other languages and cultures.

A number of factors confound reliability (as classically defined) for most trauma history instruments, including the THQ. First, there is no standard scoring system, or standard “scale,” from which norms may be developed. Second, memory or motivational factors may affect accurate reporting. For example, the stability of reporting of traumatic events (as described by Briere & Conte, 1993), particularly when based on lifetime experiences, may be confounded by memory loss, underreporting, overreporting (Najavits, Gastfriend et al., 1998), or minimizing. Alternately, individuals may be unwilling to report events such as childhood or ongoing abuse (Baker, 2009; Brewin, Andrews, & Gotlib, 1993), but willingness may change over time because of increasing familiarity with the assessment or the interviewer (Spertus et al., 1999), among other reasons. Furthermore, the categories that investigators choose to capture may or may not fit those of the person answering the questions. Finally, some studies reviewed in this article have been composed of small samples, which could have moderated and thus shaped the findings that have accumulated over time.

Our experience with the SLESQ (Goodman et al., 1998; Green et al., 2006) demonstrates the above limitations of trauma history instruments. In a 2-week test-retest study of the SLESQ, approximately one-third of the participants reported an event the first time that they did not report the second time, and vice versa, with the overall number of reported events unchanged (Goodman et al., 1999). We hypothesized that a respondent’s state of mind might change from one time to the next, leading to changes in the ability or motivation to retrieve remote memories at any given time or in the appraisal of the event (e.g., whether an event was life threatening, a qualifier in several questions).

Hepp and colleagues (2006) also reported inconsistency in reporting of traumatic events. In their community-based cohort of middle-aged adults in Switzerland, the authors obtained long-term stability data of their trauma history measure over a 6-year period using a structured interview. Their figure for “first-time” but not “second-time” reporting of specific events was about 40%, while their figure for “second-time” but not “first-time” reporting was 33%, very similar to the figures for the SLESQ for a shorter period. In both the THQ and the SLESQ, events not reported tended to be more vague ones, such as “any life-threatening event”; however, the unreliable events were not limited to vague or more minor events. Therefore, it is important to note that these instruments are best used to provide global/general data regarding a sample rather than information about specific individuals. If the intent is to use the THQ to provide information that is more individual and more detailed, it is important to follow up with an interview or additional questions about the nature of the events endorsed. Alternately, some individuals may

feel more comfortable providing information about highly charged events on a questionnaire, or anonymously; in these cases, interviews will not necessarily result in more trauma being reported.

As Weathers and Keane (2007) and Van Hooff, McFarlane, Baur, Abraham, and Barnes (2009) point out regarding Criterion A, trauma is difficult to define, especially at the item level, and the DSM definition has changed over time. Furthermore, a list of events such as those we and others have developed does not take into account the severity of the events or the person's reaction to them (i.e., Criterion A2). For example, physical assaults can vary from mild to very severe, with expected variation in effects on symptom outcomes. Thus, researchers may consider modifying the THQ in the future to assess for both Criterion A1 and Criterion A2 to potentially expand the instrument's predictive validity, although findings from some studies (see Breslau & Kessler, 2001) suggest that capturing Criterion A2 information in addition to Criterion A1 information (compared with capturing Criterion A1 information alone) does not increase prediction of PTSD. Given all of these issues, it is important to be cautious about the limits of the THQ and other trauma history measures.

CONCLUSION

Trauma is a complex construct, and reliably and validly measuring trauma is a complex endeavor (Corcoran, Green, Goodman, & Krinsley, 2000; Weathers & Keane, 2007). Many measures have been developed to capture trauma history, but there is no consensus on which self-report instrument best captures traumatic experiences. The THQ is one instrument that offers researchers and scientist-practitioners initial information regarding trauma history specifically related to Criterion A1 stressors for PTSD (APA, 1994). The THQ is an efficient, easy-to-use tool for reliably capturing lifetime exposure to diverse traumatic experiences among a range of populations (community, clinical, and nonclinical). Multiple studies have now contributed evidence about the THQ's psychometric characteristics and have documented its utility in numerous ways, indicating that the instrument is useful and sound. More work is warranted on its reliability and validity, and a shorter version of the instrument is under development.

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APPENDIX: TRAUMA HISTORY QUESTIONNAIRE

The following is a series of questions about serious or traumatic life events. These types of events actually occur with some regularity, although we would like to believe they are rare, and they affect how people feel about, react to, and/or think about things subsequently. Knowing about

the occurrence of such events, and reactions to them, will help us to develop programs for prevention, education, and other services. The questionnaire is divided into questions covering crime experiences, general disaster and trauma questions, and questions about physical and sexual experiences.

For each event, please indicate (circle) whether it happened and, if it did, the number of times and your approximate age when it happened (give your best guess if you are not sure). Also note the nature of your relationship to the person involved and the specific nature of the event, if appropriate.

<i>If you circled yes, please indicate</i>			
		Number of times	Approximate age(s)
Crime-Related Events			
1	Has anyone ever tried to take something directly from you by using force or the threat of force, such as a stick-up or mugging?	No	Yes
2	Has anyone ever attempted to rob you or actually robbed you (i.e., stolen your personal belongings)?	No	Yes
3	Has anyone ever attempted to or succeeded in breaking into your home when you were <i>not</i> there?	No	Yes
4	Has anyone ever attempted to or succeed in breaking into your home while you <i>were</i> there?	No	Yes
General Disaster and Trauma			
5	Have you ever had a serious accident at work, in a car, or somewhere else? (If yes , please specify below)	No	Yes
6	Have you ever experienced a natural disaster such as a tornado, hurricane, flood or major earthquake, etc., where you felt you or your loved ones were in danger of death or injury? (If yes , please specify below)	No	Yes
7	Have you ever experienced a "man-made" disaster such as a train crash, building collapse, bank robbery, fire, etc., where you felt you or your loved ones were in danger of death or injury? (If yes , please specify below)	No	Yes
8	Have you ever been exposed to dangerous chemicals or radioactivity that might threaten your health?	No	Yes
9	Have you ever been in any other situation in which you were seriously injured? (If yes , please specify below)	No	Yes

(Continued)

		<i>If you circled yes, please indicate</i>	
Crime-Related Events		Circle one	Approximate age(s)
		Number of times	
10	Have you ever been in any other situation in which you feared you <i>might</i> be killed or seriously injured? (If yes , please specify below)	No Yes	Yes
11	Have you ever seen someone seriously injured or killed? (If yes , please specify who below)	No Yes	Yes
12	Have you ever seen dead bodies (other than at a funeral) or had to handle dead bodies for any reason? (If yes , please specify below)	No Yes	Yes
13	Have you ever had a close friend or family member murdered, or killed by a drunk driver? (If yes , please specify relationship [e.g., mother, grandson, etc.] below)	No Yes	Yes
14	Have you ever had a spouse, romantic partner, or child die? (If yes , please specify relationship below)	No Yes	Yes
15	Have you ever had a serious or life-threatening illness? (If yes , please specify below)	No Yes	Yes
16	Have you ever received news of a serious injury, life-threatening illness, or unexpected death of someone close to you? (If yes , please indicate below)	No Yes	Yes
17	Have you ever had to engage in combat while in military service in an official or unofficial war zone? (If yes , please indicate where below)	No Yes	Yes

		<i>If you circled yes, please indicate</i>		
		Circle one	Repeated?	Approximate age(s) and frequency
Physical and Sexual Experiences				
18	Has anyone ever made you have intercourse or oral or anal sex against your will? (If yes , please indicate nature of relationship with person [e.g., stranger, friend, relative, parent, sibling] below)	No Yes		
19	Has anyone ever touched private parts of your body, or made you touch theirs, under force or threat? (If yes , please indicate nature of relationship with person [e.g., stranger, friend, relative, parent, sibling] below)	No Yes		
20	Other than incidents mentioned in Questions 18 and 19, have there been any other situations in which another person tried to force you to have an unwanted sexual contact?	No Yes		
21	Has anyone, including family members or friends, ever attacked you with a gun, knife, or some other weapon?	No Yes		
22	Has anyone, including family members or friends, ever attacked you <i>without</i> a weapon and seriously injured you?	No Yes		
23	Has anyone in your family ever beaten, spanked, or pushed you hard enough to cause injury?	No Yes		
24	Have you experienced any other extraordinarily stressful situation or event that is not covered above? (If yes , please specify below)	No Yes		