Child Abuse-Suicide Resilience Link in African American Women: Interpersonal Psychological Mediators

Lucy Allbaugh, Emory University
Ivonne Florez, Emory University
Danielle Render Turmaud, Mercer University
Nadia Quyyum, Emory University
Sarah Dunn, Emory University
Jungjin Kim, Emory University
Nadine Kaslow, Emory University

Journal Title: Journal of Aggression, Maltreatment and Trauma
Volume: Volume 26, Number 10
Publisher: Taylor & Francis (Routledge): STM, Behavioural Science and Public Health Titles | 2017-01-01, Pages 1055-1071
Type of Work: Article | Post-print: After Peer Review
Publisher DOI: 10.1080/10926771.2017.1350773
Permanent URL: https://pid.emory.edu/ark:/25593/tqr0j

Final published version: http://dx.doi.org/10.1080/10926771.2017.1350773

Copyright information:
© 2017 Taylor & Francis.

Accessed January 7, 2020 1:25 PM EST
Child Abuse - Suicide Resilience Link in African American Women: Interpersonal Psychological Mediators

Lucy J. Allbaugh1, Ivonne Andrea Florez1, Danielle Render Turmaud2, Nadia Quyyum1, Sarah E. Dunn1, Jungjin Kim1, and Nadine J. Kaslow1

1Department of Psychiatry and Behavioral Sciences, Emory University School of Medicine, Atlanta, GA, USA
2Penfield College, Mercer University, Atlanta, GA, USA

Abstract

The interpersonal-psychological theory of suicidal behavior (IPTS) is an exemplary model for understanding the desire for suicidal behavior. As such, it is important to explore its applicability in ethnoracial minority groups at increasing risk for suicidal behavior, such as low-income African American women. Guided by the IPTS, the current study used five parallel mediation models to examine if there are links between individual types of childhood abuse (physical, sexual, emotional) and suicide resilience and between cumulative abuse (higher levels of abuse inclusive of all three types, more types of severe levels of abuse) and suicide resilience, and whether the three components of the model (thwarted belongingness, perceived burdensomeness, acquired capability for suicide) mediate these associations. In a sample of low-income, African American women (n = 179), higher levels of each of the three types of childhood abuse and cumulative abuse correlated with lower levels of suicide resilience. Parallel mediation analyses using bootstrapping techniques revealed that increased acquired capability for suicide mediated all five associations and perceived burdensomeness mediated three of the links (emotional abuse, cumulative abuse, and cumulative abuse-severe with suicide resilience). Attention is paid to the clinical implications of the findings in terms of attending to the acquired capability for suicide and suicide resilience in the assessment and treatment of low-income, suicidal, African American women.

Historically, suicide has been investigated in association with psychopathology, rather than as an independent phenomenon (Joiner, 2005; Ma, Batterham, Calear, & Han, 2016; Van Orden et al., 2010). Efforts have been mounted toward developing models that account for the unique etiology and correlates of suicidality. The interpersonal-psychological theory of suicidal behavior (IPTS) (Joiner, 2005; Van Orden et al., 2010) has emerged as a predominant framework for conceptualizing suicidal behavior. According to the IPTS, suicidal behavior is predicted by the interaction of suicide desire, which involves thwarted belongingness and perceived burdensomeness, and the capacity to commit suicide (i.e., acquired capability) (Joiner, 2005; Van Orden et al., 2010). Thwarted belongingness refers to people’s perception of a lack of meaningful connections to others due to a view that no one
cares about them and/or can empathize with their circumstances. Perceived burdensomeness reflects people’s belief that they cannot meaningfully contribute to society and that their existence is a liability for others. When individuals habituate to physical pain and the fear of death in the context of repeated exposures to painful, risky, and stimulating experiences, they become capable of enacting plans to die.

Many studies have confirmed the model’s premises that thwarted belongingness and perceived burdensomeness interact to predict suicidal ideation (Joiner et al., 2009; Van Orden, Witte, Gordon, Bender, & Joiner, 2008), increased acquired capability results in more serious attempts (Ma et al., 2016), and a three-way interaction predicts number of attempts (Anestis & Joiner, 2011). However, results have not universally validated these tenets (Bryan, Sinclair, & Heron, 2016; Gaskin-Wasson, Walker, Shin, & Kaslow, 2016; Ma et al., 2016). To clarify these discrepancies, there has been initial testing of the model in specific populations (Ma et al., 2016), such as African Americans, who are at growing risk for suicide (Curtin, Warner, & Hedegaard, 2016). In African American college students, perceived burdensomeness, thwarted belongingness, and the interaction among the three components all predicted suicidal ideation (Davidson, Wingate, Slish, & Rasmussen, 2010). In female African American suicide attempters, thwarted belongingness mediated the links between spiritual well-being and suicidality, depression, and hopelessness (Gaskin-Wasson et al., 2016). One study found similar levels of IPTS components in African Americans and Caucasians (Davidson & Wingate, 2011).

The IPTS posits that childhood trauma may be one risk factor for all three model components and for suicidal behavior (Van Orden et al., 2010). This supposition is consistent with evidence that childhood maltreatment is associated with later suicidality (Briere, Madni, & Godbout, 2016; Norman et al., 2012). Although no studies have tested all premises of the theory in childhood maltreatment survivors, among undergraduates, the childhood emotional abuse-suicide ideation link was mediated by perceived burdensomeness, but not by thwarted belongingness (Puzia, Kraines, Liu, & Kleiman, 2014), whereas acquired capability mediated the childhood physical abuse - self-harm link (Brausch & Holaday, 2014). Research also has shown that both cumulative childhood trauma and severity of such trauma are associated with a history of and risk for future suicidal behavior in vulnerable and diverse samples (Clements-Nolle, Wolden, & Bargmann-Losche, 2009; Mandelli, Carli, Roy, Serretti, & Sarchiapone, 2011; Torchalla, Strehlau, Li, Schuetz, & Krausz, 2012). To date, however, the IPTS has not been used to examine the association between the cumulative effect of childhood trauma and suicidal behavior. Given the disproportionately high rates of childhood maltreatment among African Americans (Drake et al., 2011) and people living in poverty (Eckenrode, Smith, McCarthy, & Dineen, 2014), it is important to identify factors that render low-income African American women less able to manage their suicidal thoughts and impulses in light of their cumulative history of childhood maltreatment and thus less resilient in the face of their own suicidality.

Increased attention has been paid to suicide resilience (Osman et al., 2004), the ability to cope with suicidal thoughts without engaging in suicidal behaviors due to a view that a range of personal and external support and resources are available. Low suicide resilience has been found in adults with a history of suicidal thoughts, actions, and/or plans that endorse limited
internal protective factors, emotional stability, and external protective factors (Osman et al., 2004). To date, suicide resilience has not been examined as an outcome variable related to the IPTS.

While resilience mitigates the risk for suicidal behavior among childhood maltreatment survivors (Roy, Carli, & Sarchiapone, 2011), no studies have examined the childhood maltreatment – suicide resilience link or the mediational role of IPTS components in this association. To fill this gap, this study examines the direct links between three types of childhood abuse (physical, sexual, emotional) and suicide resilience and the mediational roles of the three IPTS components in these links. In keeping with the IPTS, it was predicted among high risk, disadvantaged African American women with recent suicide attempt and exposure to intimate partner violence (1) the three types of childhood abuse would be independently associated with lower suicide resilience; and (2) higher levels of thwarted belongingness, perceived burdensomeness, and acquired capability would mediate these associations. Given the role cumulative childhood abuse plays on later psychological functioning, the study also investigates if (1) both more childhood abuse inclusive of all three types (cumulative) and more types of severe levels of childhood abuse (cumulative – severe levels) would be independently associated with lower suicide resilience; and (2) higher levels of the three IPTP components would mediate both the cumulative and cumulative- severe childhood abuse – suicide resilience associations.

Method

Participants

Participants were 179 African American women recruited from an urban public hospital. They were eligible if they self-identified as African American and reported both a suicide attempt and exposure to intimate partner violence in the prior year. Cognitive impairment, acute psychosis, and delirium were exclusion criteria. The sample’s mean age was 36.65 (SD = 10.55), 44.7% were single/never married, 31.3% were married or partnered, 16.8% were divorced/separated, and 2.2% were widowers. In addition, 67.6% had children, 54.2% were homeless, 87.2% were unemployed, and 100% had a monthly household income less than $2000.

Measures

Childhood maltreatment was assessed using the 28 item self-report Childhood Trauma Questionnaire (CTQ) (Bernstein & Fink, 1998), which examines three types of abuse (physical, sexual, emotional) and two types of neglect (physical, emotional). Each subscale includes five items and respondents rate the validity of each statement from 1 (never true) to 5 (very often true). The measure has good test-retest reliability; internal consistency reliability; and, concurrent criterion validity, and convergent validity (Bernstein & Fink, 1998; Scher, Stein, Asmundson, McCreary, & Forde, 2001; Spinhoven et al., 2014). It has shown measurement invariance across racial groups (Thombs, Lewis, Bernstein, Medrano, & Hatch, 2007) and high internal consistency reliability in African American women (Anderson, Tiro, Price, Bender, & Kaslow, 2002) (α’s = .89, .93, and .85 for physical, sexual, and emotional abuse in current sample). The five factors have good content and face
validity and have been confirmed through confirmatory factor analysis (Bernstein & Fink, 1998; Scher et al., 2001; Spinhoven et al., 2014). In the current study, the (1) three abuse subscale total scores were considered separately (independent abuse scores), (2) abuse subscale total scores were summed (cumulative abuse score), and (3) cut scores for severe levels of each form of abuse were used to determine a count score of types of severe abuse experienced (cumulative – severe) (Bernstein & Fink, 1998).

Two measures assessed the three components of the IPTS. The Interpersonal Needs Questionnaire (INQ-25) (Anestis, Bagge, Tull, & Joiner, 2011; Anestis & Joiner, 2011) tapped thwarted belongingness (10 items) and perceived burdensomeness (15 items). Items were rated on a 7-point Likert scale; higher scores indicate more thwarted belongingness and perceived burdensomeness. The INQ, which has five versions, has good test-retest reliability; internal item consistency; and criterion, convergent, and concurrent validity in samples in the United States and internationally (Hallensleben, Spangenberg, Kapusta, Forkmann, & Glaesmer, 2016; Hill et al., 2015; Van Orden, Cukrowicz, Witte, & Joiner, 2012). Despite good internal consistency in other samples, for the current sample it was adequate for thwarted belongingness ($\alpha = .54$) and low for perceived burdensomeness ($\alpha = .42$). Acquired capability was assessed using the 20-item Acquired Capability for Suicide Scale (ACSS) (Van Orden et al., 2008), which measures fearlessness of death and potentially fatal self-injury. Items are rated on a 5-point Likert scale; higher total scores indicate more acquired capability. The ACSS has good discriminant and convergent validity and adequate internal consistency reliability (Anestis, Bender, Selby, Ribeiro, & Joiner, 2011; Van Orden et al., 2008) ($\alpha = .74$ for current sample).

To evaluate protective factors against suicide (i.e., suicide resilience), the 25-item Suicide Resilience Inventory – 25 (SRI – 25) (Osman et al., 2004) was used. Items were rated on a 6-point Likert scale; higher scores reflect greater levels of suicide resilience across three dimensions (internal protective, emotional stability, and external protective). The SRI-25 total has good discriminant, concurrent, and convergent validity and acceptable internal consistency reliability (Fang, Freedenthal, & Osman, 2014; Osman et al., 2004; Rutter, Freedenthal, & Osman, 2008) ($\alpha = .92$ in current sample).

**Procedures**

Recruitment mechanisms and study procedures were approved by the University’s Institutional Review Board and hospital’s Research Oversight Committee. Participants were recruited from hospital inpatient units and outpatient clinics. Eligible women were scheduled for the pre-intervention, 2–3 hour, face-to-face assessment; this study used this pre-intervention data. During the assessment, the interviewer read aloud each of the 24 measures to ensure participant comprehensions. Participants were compensated $20 for their time.

**Data Analysis**

Statistical analyses were performed using SPSS statistical software. Missing data were determined to be missing completely at random (MCAR) according to Little’s MCAR test; $\chi^2(65) = 65.50, p = .46$. Therefore, missing data were singly imputed at the scale level using
the expectation maximization algorithm, consistent with standard recommendations (Graham, 2009). The indirect effects of the proposed models were tested using bootstrapping techniques (5,000 bootstrapped samples) in the PROCESS macro for SPSS (Hayes, 2013). PROCESS Model 4, which allows multiple mediators to be tested in parallel, was used for the five mediational models. Each model used the CTQ score as the independent factor; thwarted belongingness, perceived burdensomeness, and acquired capability for suicide as three, parallel mediators; and the suicide resilience total score as the dependent variable. Separate models were run for the severity of each type of childhood abuse (i.e., physical, sexual, and emotional abuse, cumulative abuse, cumulative abuse-severe) to determine their unique relation with the IPTS and suicide resilience. See Figures 1–3 for a visual depiction of the three models for these independent childhood abuse scores. In addition, separate models were run for the cumulative and cumulative-severe childhood abuse scores and these are depicted in Figures 4 and 5.

Results

Preliminary Analyses

Bivariate correlations were used to identify relations among study measures; correlation coefficients are displayed in Table 1. As predicted, strong positive relations were found among the three types of childhood abuse and all three abuse types were negatively associated with suicide resilience. A significant positive correlation also was found between thwarted belongingness and perceived burdensomeness. There also was a positive correlation between physical abuse and acquired capability for suicide, consistent with the IPTS. Surprisingly, perceived burdensomeness was not correlated with physical or sexual abuse and thwarted belongingness was not correlated with any abuse types or with suicide resilience.

Mediation Models

**Independent abuse scores.**—Suicide resilience was predicted by the full model when it included childhood physical abuse and the three IPTS factors. This model accounted for 31% of the variance \(F(4, 174) = 19.99, p < .001\). There was a significant direct effect of childhood physical abuse on suicide resilience \(b = -.72, SE = .22, 95\% CI [-1.16 - -.28]\). Bootstrap estimations revealed a significant indirect effect through the acquired capability for suicide \(b = -.29, SE = .11, 95\% CI [-.54 - -.10]\). No significant indirect effect was found through either thwarted belongingness or perceived burdensomeness. In other words, greater severity of childhood physical abuse directly predicted lower suicide resilience and higher levels of acquired capability for suicide, but neither IPTS interpersonal factor, mediated this association.

Suicide resilience also was predicted by the full model when childhood sexual abuse and the three IPTS factors were considered. This model accounted for 31% of the variance \(F(4, 174) = 19.39, p < .001\). A significant direct effect of childhood sexual abuse on suicide resilience was found \(b = -.56, SE = .19, 95\% CI [-.93 - -.18]\). Bootstrap estimations also revealed a significant indirect effect through the acquired capability for suicide \(b = -.19, SE = .08, 95\% CI [-.39 - -.07]\). Again, no significant indirect effect was found through either
thwarted belongingness or perceived burdensomeness. In other words, similar to findings on childhood physical abuse, greater severity of childhood sexual abuse was found to directly predict lower suicide resilience and higher levels of acquired capability for suicide were found to mediate this relation. Neither of the IPTS interpersonal factors emerged as mediators of this relation.

Last, suicide resilience was predicted by the full model when it included childhood emotional abuse and the three IPTS factors. This model accounted for 31% of the variance \( F(4, 174) = 19.61, p < .001 \). There was a significant direct effect of childhood emotional abuse on suicide resilience \( b = −.74, SE = .24, 95\% CI [−1.22 - −.26] \). Bootstrap estimations revealed significant indirect effects through both the acquired capability for suicide \( b = −.30, SE = .10, 95\% CI [−.53 - −.13] \) and perceived burdensomeness \( b = −.33, SE = .16, 95\% CI [−.72 - −.08] \). No significant indirect effect was found for thwarted belongingness. In other words, greater severity of childhood emotional abuse also was found to directly predict lower suicide resilience and increased acquired capability for suicide again emerged as a significant mediator. Perceived burdensomeness also was found to mediate this relation, which was unique to childhood emotional abuse; thwarted belongingness did not emerge as a mediator of this relation.

**Cumulative abuse scores.**—Suicide resilience was predicted by the full model when it included the cumulative abuse score and the three IPTS factors. This model accounted for 32% of the variance \( F(4, 174) = 20.47, p < .001 \). There was a significant direct effect of cumulative abuse on suicide resilience \( b = −.33, SE = .09, 95\% CI [−.51 - −.16] \). Bootstrap estimations revealed significant indirect effects through both the acquired capability for suicide \( b = −.11, SE = .04, 95\% CI [−.21 - −.04] \) and perceived burdensomeness \( b = −.08, SE = .05, 95\% CI [−.20 - −.01] \). No significant indirect effect was found for thwarted belongingness. In other words, similar to findings with emotional abuse considered independently, higher levels of cumulative abuse was found to directly predict lower suicide resilience and both increased acquired capability for suicide and perceived burdensomeness were found to mediate this relation.

Suicide resilience was also predicted by the full model when it included cumulative types of severe abuse (cumulative-severe) and the three IPTS factors. This model accounted for 30% of the variance \( F(4, 174) = 18.40, p < .001 \). There was a significant direct effect of cumulative-severe abuse on suicide resilience \( b = −3.62, SE = 1.29, 95\% CI [−6.16 - −1.08] \). Bootstrap estimations revealed significant indirect effects through both the acquired capability for suicide \( b = −1.59, SE = .59, 95\% CI [−3.07 - −.69] \) and perceived burdensomeness \( b = −1.11, SE = .67, 95\% CI [−2.85 - −.14] \). No significant indirect effect was found for thwarted belongingness. In other words, more types of severe childhood abuse directly predicted lower suicide resilience, mediated by acquired capability for suicide and perceived burdensomeness.

**Discussion**

This study advances our knowledge base in four ways. First, the results reveal a link between three types of childhood abuse and suicide resilience in low-income African American
women; higher levels of self-reported childhood physical, sexual, and emotional abuse correlated with lower suicide resilience. Second, the data highlight the powerful meditational role of the acquired capability for suicide between each type of childhood abuse and suicide resilience and the meditational role of both acquired capability and perceived burdensomeness between cumulative levels of childhood abuse and suicide resilience. Third, this is the first time the IPTS has been applied to suicide resilience and the results are promising. Finally, the findings add to the nascent research on the IPTS’s applicability to low-income, African Americans.

Historically, researchers have focused primarily on the link between childhood maltreatment defined broadly and suicidal behavior in adulthood, a connection that has been found in African American women (Anderson et al., 2002). More recently, investigators studying specific types of maltreatments, have found associations between self-reported childhood physical (Norman et al., 2012), sexual (Devries et al., 2014), and emotional (Briere et al., 2016; De Araujo & Lara, 2016; Norman et al., 2012) abuse and later suicidal ideation and attempts. The only study to address this in African Americans focused only on sexual abuse (Lamis et al., 2016). Thus, this is the first time an investigation has demonstrated that multiple forms of childhood abuse are relevant to later suicidal behavior in African American women.

Although one study demonstrated that a general measure of resilience differentiated between survivors of maltreatment with and without a suicide attempt (Roy et al., 2011), no prior studies have examined the link between childhood maltreatment and the construct of suicide resilience. Suicide resilience, which is distinct from suicide risk, is more than simply the absence of suicidal thoughts and behaviors (Johnson, Wood, Gooding, Taylor, & Tarrier, 2011). It is instead a constellation of factors that buffer an individual against the risk for suicidal behavior in the presence of significant stressors, other risk factors, and suicidal thoughts (Johnson et al., 2011; Osman et al., 2004). Thus, results from the current study highlight the value of recognizing the negative impact that various types of childhood abuse and their cumulative effect have on women’s capacity to be resilient in the face of suicidal thoughts and urges and not act upon them.

The finding that acquired capability was the IPTS component that mediated the links between both each specific abuse type and cumulative abuse and later suicide resilience, underscores the unique role of this construct. The fact that perceived burdensomeness was a mediator when considering both childhood emotional abuse as an independent predictor and the cumulative effect suggests its link to this specific form of abuse and the additive impact of this construct in the context of increased exposure and severity of abuse. The IPTS predicts that suicidal ideation is most present in individuals who experience high levels of both perceived burdensomeness and thwarted belongingness, whereas it is the interaction of suicidal thoughts and the acquired capability for suicide that the model views as key to the development of suicidal plans, attempts, and death by suicide (Christensen, Batterham, Soubellet, & Mackinnon, 2013; Joiner, 2005; Ribeiro & Joiner, 2009; Van Orden et al., 2010; Van Orden et al., 2008). This is not the first time that acquired capability has functioned differently than the other two model components (Anestis, Bagge, et al., 2011; Silva, Ribeiro, & Joiner, 2015).
Combat experiences have been found to predict acquired capability, but not the other two components of the model (Bryan et al., 2016). This has been attributed to the fact that exposure to painful experiences, such as combat trauma or in the current study childhood abuse, may result in habituation to fear of painful experiences including both the repeated traumas and death by suicide (Selby et al., 2010). As a result, such traumatic experiences may impact acquired capability, but not perceived burdensomeness or thwarted belongingness. The IPTS posits that provocative experiences, such as childhood abuse, contribute to people’s habituation to fear and pain, which in turn enhances their capability to engage in suicidal behaviors, but not to their levels of negative emotional and psychological functioning that fuel the desire for suicidal behavior (Van Orden et al., 2010). Individuals with significant exposure to such provocative experiences have been found to be most likely to engage in suicidal behaviors when they exhibit cognitive, rather than psychophysiological, responses reflective of fearlessness and pain insensitivity (Smith, Cukrowicz, Poindexter, Hobson, & Cohen, 2010). Moreover, variations in the degree to which individuals have developed fearlessness and pain insensitivity have been shown to determine the severity and lethality of their suicidal behavior and the method of self-harm that they select (Smith & Cukrowicz, 2010).

This is not the first study to find a strong connected between childhood emotional abuse and perceived burdensomeness. For example, in a study of individual with moderate to severe childhood abuse, emotional abuse, but not physical or sexual abuse, was prospectively linked to suicidal ideation, and mediated by perceived burdensomeness but not thwarted belongingness (Puzia et al., 2014). The study’s investigators hypothesized that childhood emotional abuse may uniquely increase a person’s sense of encumbering others in their social environment.

Thus, there may be two reasons why in this study perceived burdensomeness mediated the relation between cumulative childhood abuse (including cumulative severe abuse) and suicide resilience. First, these cumulative variables included childhood emotional abuse and thus its inclusion may be necessary for activating this mediational pathway. Second, the findings are in accord with previous research showing cumulative levels childhood trauma to uniquely predict more overall psychological vulnerability, emotional dysregulation, and psychiatric symptoms (Cloitre et al., 2009; Walsh, DiLillo, & Scalora, 2011) and that both emotional dysregulation and mental health problems are strongly correlated with perceived burdensomeness (Anestis, Bagge, et al., 2011; Silva et al., 2015). The effect of cumulative childhood abuse, including severe levels of multiple types of such abuse, on perceived burdensomeness further supports the assumption that emotional and psychological disruptions are strongly linked to risk factors for suicidality via perceived burdensomeness (Van Orden et al., 2010).

This investigation’s focus on the relevance of the IPTS to suicide resilience is in keeping with recent efforts to incorporate resilience into the model. Studies have found that the search for meaning in life, viewed as a resilience factor, mediates the association between the IPTS variables and suicidal ideation (Kleiman & Beaver, 2013). Both self-forgiveness and mindfulness, also deemed to be resilience factors, have been found to moderate the relation between perceived burdensomeness and suicidal ideation (Buitron, Hill, & Pettit, in press).
press; Cheavens, Cukrowicz, Hansen, & Mitchell, 2016). The current investigation expands upon this body of work by attending to suicide resilience as an outcome variable. Future researchers may want to include IPTS risk factors and a series of resilience factors to gain a more nuanced understanding of variables that mediate and moderate the child abuse – suicide resilience link.

The final major contribution is that it builds upon the limited body of empirical work investigating the relevance of the IPTS to African Americans. Until recently, the model has been tested primarily in African American college students (Davidson & Wingate, 2011; Davidson et al., 2010). The only study to apply the theory to an African American clinical population did not examine all three model components; the acquired capability for suicide was not included as a variable (Gaskin-Wasson et al., 2016). This prior study found that thwarted belongingness, but not perceived burdensomeness, mediated the link between spiritual well-being and three suicide related outcomes (i.e., suicidal ideation, hopelessness, depressive symptoms). In contrast, in the present study, thwarted belongingness did not serve a mediating role in any of the child abuse – suicide resilience outcome links, and perceived burdensomeness functioned as a mediator of this link only when emotional abuse was considered either as an independent predictor or as part of a set of cumulative experiences. Therefore, more comprehensive testing of the IPTS in diverse samples of African Americans is needed, with attention to a range of predictor and outcome variables, along with inclusion of all three components of the model.

There are several limitations that should be considered. The use of a cross-sectional design precluded understanding the directionality in the associations among the variables. The sample was limited with regard to its demographics. While the advantage of this is that the findings are culturally relevant, additional research is needed to identify similarities and differences in the relevance of the IPTS components to individuals from different sociodemographic groups. Such research will shed light on the generalizability of the findings across populations. There are questions about the appropriateness of the measures for this population. The internal consistency reliabilities for the INQ subscale are low, raising the possibility that it taps a more unidimensional construct in this sample. The alpha increases to .63 when all items are considered together, suggesting it may be useful to factor analyze this scale in similar populations to understand how the IPTS constructs are best captured. All of the measures were self-report in nature. As a result, associations among the variables may be inflated due to monomethod variance. In addition, self-reports may not adequately reflect the relevant objective behaviors. Finally, many relevant constructs were not examined nor was a moderated mediation framework included. Future studies would be strengthened by a more inclusive approach.

Despite the aforementioned limitations, the findings represent a novel contribution and advance our understanding of the relevance of the IPTS to this unique population and to suicide resilience. We believe that the results have meaningful clinical implications. First, it is useful to use the IPTS to guide assessments and interventions with low-income, African American women, particularly those with a history of childhood abuse and suicidal behavior. In addition to asking standard suicide risk assessment questions, it is imperative that clinicians evaluate all three IPTS components and gather data about experiences with and
habituation to pain and provocation related to trauma, suicidal behavior, and other indicators of impulsivity (Stellrecht et al., 2006). Such assessments should also focus on independent and cumulative childhood abuse and suicide resilience. Second, since acquired capability is relatively stable it is unlikely to be malleable in response to crisis intervention (Stellrecht et al., 2006). This does not mean that appropriate preventative measures should not be taken when someone is suicidal and has a high level of acquired capability, but rather that such individuals are more likely to benefit from interventions that target deficits in emotion regulation, problem-solving, and impulsivity, such as dialectical behavior therapy (DBT) and mindfulness based approaches (Linehan, 2015; Williams, Duggan, Crane, & Fennell, 2008). If the acquired capability is addressed by clinicians so that the extent to which people encounter painful and provocative situations is reduced and they become increasingly able to experience, recognize, and accept their reactions to such circumstances, treatment outcomes will be optimized and the risk for suicidal behaviors decreased. Our findings also provide treatment guidelines specific to individuals with an extensive trauma history. For instance, in these individuals targeting interpersonal relationships, maladaptive thinking patterns on relationships, and emotional regulation would be particularly important to reduce vulnerability associated with perceived burdensomeness. In addition, intervention efforts for individuals with single or multiple experiences of childhood trauma must aim to bolster suicide resilience by de-linking suicidal thoughts from actions. This can be accomplished in part by utilizing DBT techniques designed to strengthen the personal and external coping strategies that enable individuals to optimally manage their affective distress. In addition, acceptance and commitment therapy may help women, such as those in this sample, be more accepting of their unwanted suicidal thoughts and simultaneously develop a greater sense of commitment to and action toward living a valued and meaningful life (Hayes, Strosahl, & Wilson, 2011).

**Acknowledgments**

This research was supported by a grant from the National Institute of Mental Health (1R01MH078002–01A2, Group interviews for abused, suicidal Black women) awarded to the last author (Kaslow).

**References**


J Aggress Maltreat Trauma. Author manuscript; available in PMC 2019 May 15.


Figure 1.
Childhood Physical Abuse Model Parameters Notes. Presented are unstandardized parameter estimates; standard errors in parentheses; *p < .05; **p < .01.
Figure 2.
Childhood Sexual Abuse Model Parameters Notes. Presented are unstandardized parameter estimates; standard errors in parentheses; *p < .05; **p < .01.
Figure 3.
Childhood Emotional Abuse Model Parameters Notes. Presented are unstandardized parameter estimates; standard errors in parentheses; *$p < .05$; **$p < .01$. 
Figure 4.
Cumulative Abuse Model Parameters Notes. Presented are unstandardized parameter estimates; standard errors in parentheses; *$p < .05$; **$p < .01$. 
Figure 5.
Cumulative-Severe Abuse Model Parameters Notes. Presented are unstandardized parameter estimates; standard errors in parentheses; *p < .05; **p < .01.
### Table 1.
Bivariate Correlations among IPTS Variables and Descriptive Statistics.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Emotional Abuse</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Physical Abuse</td>
<td>.69 **</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Sexual Abuse</td>
<td>.49 **</td>
<td>.44 **</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Suicide Resilience</td>
<td>-.38 **</td>
<td>-.37 **</td>
<td>-.28 **</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Perceived Burdensomeness</td>
<td>.26 **</td>
<td>.14</td>
<td>.03</td>
<td>-.37 **</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Thwarted Belongingness</td>
<td>.02</td>
<td>-.02</td>
<td>-.03</td>
<td>.00</td>
<td>.52 **</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>7. Acquired Capability for Suicide</td>
<td>.33 **</td>
<td>.41 **</td>
<td>.26 **</td>
<td>-.40 **</td>
<td>-.22 **</td>
<td>-.02</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>16.86</th>
<th>13.76</th>
<th>16.6</th>
<th>94.88</th>
<th>24.8</th>
<th>35.96</th>
<th>61.09</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SD</strong></td>
<td>6.07</td>
<td>6.65</td>
<td>7.44</td>
<td>21.57</td>
<td>5.62</td>
<td>6.6</td>
<td>12.00</td>
</tr>
</tbody>
</table>

**Note.** *p* < .01.