Received: 28 October 2019 | Revised: 12 June 2020 | Accepted: 20 July 2020

DOI: 10.1002/jclp.23036

RESEARCH ARTICLE

WILEY

Validation of the difficulties with emotion regulation scale in a sample of trauma-exposed Black women

Yara Mekawi[1] | Natalie N. Watson-Singleton[2] | Hayley D. Dixon[1] | Negar Fani[1] | Vasiliki Michopoulos[1] | Abigail Powers[1]

[1]Department of Psychiatry and Brain Science, Emory School of Medicine, Atlanta, Georgia, USA

[2]Department of Psychology, Spelman College, Atlanta, Georgia, USA

Correspondence

Yara Mekawi, Department of Psychiatry and Brain Science, Emory School of Medicine, Grady Trauma Project, 49 Jesse Hill Jr Dr, Atlanta, GA 30303, USA.
Email: yara.mekawi@emory.edu

Funding information

National Institute of Aging, Grant/Award Number: AG062334; National Institute of Child Health and Human Development, Grant/Award Number: HD071982; National Center for Complementary & Integrative Health, Grant/Award Number: K23AT009713; National Institute of Mental Health, Grant/Award Numbers: MH071537, MH100122, MH101380, MH102890, MH115174

Abstract

Background: The Difficulties in Emotion Regulation Scale (DERS) is commonly used to assess dimensions of emotion dysregulation, including emotion nonacceptance, limited strategies, and difficulty with goal-directed behavior, impulse control, and emotional clarity. Despite considerable work examining the DERS' factor structure, reliability, and validity, there is limited psychometric support for its use with Black women.

Objectives: (1) Examine the factor structure of the DERS; (2) Compare fit of short-form versions; and (3) Assess whether scores differ based on diagnoses.

Method: Sample consisted of Black women ($n = 667$) recruited in urban, community hospital setting.

Results: The DERS-18 correlated traits model without awareness demonstrated the best fit, χ^2 (80) = 261.09, root mean square error of approximation = 0.06 [0.05, 0.07], comparative fit index = 0.99, Tucker Lewis Index = 0.98, weighted root mean square residual = 0.89. Additionally, those with current diagnoses of posttraumatic stress disorder (PTSD) or major depressive disorder (MDD) reported higher dysregulation (vs. lifetime/no diagnoses). Further, women with comorbid PTSD/MDD reported greater dysregulation (vs. single disorder/no diagnoses).

Conclusions: This study provides evidence supporting the model fit, reliability, and validity of the DERS-18 for Black women.

KEYWORDS
Black women, DERS, emotion regulation, MDD, PTSD, validation

1 | INTRODUCTION

Emotion dysregulation has received substantial empirical attention given its role as a key mechanism in the development and maintenance of psychological conditions (Aldao, Nolen-Hoeksema, & Schweizer, 2010). Prominent theories define emotion dysregulation as maladaptive responses to emotions, which can include limited awareness and understanding of emotional experiences, avoidance of emotions, and difficulties regulating behaviors when distressed (Gratz & Roemer, 2004). To date, emotion dysregulation has been regarded as an important individual difference that differentially predicts risk for adverse mental health outcomes (McDermott, Tull, Gratz, Daughters, & Lejuez, 2009; McLaughlin, Hatzenbuehler, Mennin, & Nolen-Hoeksema, 2011; Vasilev, Crowell, Beauchaine, Mead, & Gatzke-Kopp, 2009). Specifically, in the face of the same stressor (e.g., traumatic experiences), individuals with higher levels of emotion dysregulation may be more likely to experience worse mental health symptoms compared to those with lower levels of emotion dysregulation, making it a particularly important construct to be able to measure in populations who face high exposure to trauma (Pencea et al., 2020; Raudales, Short, & Schmidt, 2019).

Not only can levels of emotion dysregulation differ across people, but also, they can vary for individuals who experience stress and marginalization at the intersection of their social identities. Moreover, some theories suggest that emotion regulation strategies, like emotional restriction and inhibition, may be encouraged by culturally relevant coping processes (Chapman & Mullis, 2000; James, 1994; Watson & Hunter, 2015). For instance, John Henryism, a culturally relevant form of high active coping often employed by Black Americans with limited resources, promotes determination in response to stressful situations and systematic discrimination (James, 1994). For Black women, in particular, the Strong Black Woman Schema captures how many Black women are socialized to cope with stress by suppressing their emotions, taking on multiple roles and responsibilities, forgoing emotional support from others, and postponing self-care. Although these coping styles are not emotion regulation processes specifically, they do have implications for how Black women modulate and regulate their emotions. Therefore, coping in these ways could prompt emotion regulation processes that contribute to group-level risks for psychological symptomatology (e.g., depression, posttraumatic stress disorder [PTSD] symptoms). Yet, virtually no studies have examined if existing emotion dysregulation measures are reliable and valid in Black women.

Within behavioral health disciplines, there are various conceptualizations of emotion regulation (and dysregulation) that have resulted in several questionnaires assessing this construct. Some emotion regulation frameworks accentuate emotional experience and expression *control* and emotional arousal *reduction* (Cortez & Bugental, 1994) whereas others underscore the function of emotions and one's capacity to experience a range of emotions (Gross & Muñoz, 1995; Paivio, Greenberg, Flack, & Laird, 1998). These conceptualizations have given way to assessments, like the Generalized Expectancy for Negative Mood Regulation Scale (NMR; Catanzaro & Mearns, 1990), the Trait Meta-Mood Scale (TMMS; Salovey, Mayer, Goldman, Turvey, & Palfai, 1995), and the Emotion Regulation Questionnaire (ERQ; Gross & John, 2003). The NMR measures individuals' beliefs that certain behaviors or thoughts either ease a negative emotional state or prompt a positive one, highlighting theories that posit that emotion regulation entails eliminating or avoiding negative emotions. In addition, the TMMS, which captures individuals' ability to notice and manage their emotions, underscores beliefs that emotion regulation involves

accurate awareness of emotions to inform regulation strategies. Moreover, the ERQ measures how individuals regulate and manage two distinct aspects of their emotional life: emotional experience (i.e., how the emotion feels internally) and emotional expression (i.e., how emotions are shown via gestures or behaviors). Thus, this questionnaire evaluates how people's internal experiences impact their affective responding.

Despite the utility of these abovementioned measures, they mainly reflect a single aspect or subset of emotion regulation dimensions. To address these limitations, Gratz and Roemer (2004) developed the Difficulties in Emotion Regulation Scale (DERS), a multidimensional self-report assessment that reflects a comprehensive, integrative conceptualization of emotion regulation. The initial items were developed on the basis of extensive conversations between the authors and emotion regulation scholars, and an undergraduate student sample was recruited to establish the factor structure, construct validity, and test retest reliability of the measure. The authors used a common factor analysis to determine that 36 items captured clinically relevant difficulties in emotion regulation across six domains: (1) nonacceptance of emotional responses (six items), defined as one's inclination to have a negative secondary emotional response to negative emotions or one's nonacceptance of distress; (2) difficulty engaging in goal-directed behaviors when distressed (five items), characterized as one's limited capacity to concentrate and complete tasks when experiencing negative emotions; (3) impulse control difficulties (six items), denoted as difficulties maintaining control of one's behavior in the presence of negative emotions; (4) limited access to effective emotion regulation strategies (eight items), noted as one's perceived inability to handle negative emotions; (5) limited emotional awareness (six items), defined as one's inattention to emotional responses; and (6) lack of emotional clarity (five items), characterized as one's uncertainty about which emotions are being experienced. Based on the structure of the NMR item stems, some DERS item stems prompt individuals to think about the extent to which they use strategies when they are distressed to capture how regulation strategies are contextually dependent. The authors found evidence of associations between all subscales and experiential avoidance and also reported that some subscales (e.g., strategies) were associated with clinical outcomes (e.g., self-harm), while others (e.g., awareness) were not.

Given the DERS' various strengths as a comprehensive emotion dysregulation measure, there have been numerous attempts to increase its psychometric support in terms of factor structure, reliability, and construct validity in a range of samples (e.g., adolescents vs. adults, clinical vs. community; e.g., Fowler et al., 2014). These validation studies have revealed three concerns related to the DERS, including the most appropriate factor structure, the justification for the awareness factor, and the length of the measure.

In terms of factor structure, there is consistent evidence that the DERS items are better represented multidimensionally (i.e., correlated traits models) than on a single dimension (i.e., unidimensional models; Benfer, Bardeen, Fergus, & Rogers, 2018; Gratz & Roemer, 2004; Lee, Witte, Bardeen, Davis, & Weathers, 2016; Ritschel, Tone, Schoemann, & Lim, 2015). Building on correlated trait models, several researchers have found support for models in which variation among these factors are accounted for by a larger construct of emotion dysregulation (i.e., higher-order models), which provides some support for using the DERS total score (Benfer et al., 2018; Osborne, Michonski, Sayrs, Welch, & Anderson, 2017). Extending the findings on higher-order models, researchers have also found support for models in which the DERS is represented by a general emotion dysregulation factor and potentially unique additional factors represented by DERS subscales (i.e., bifactor models; Benfer et al., 2018; Osborne et al., 2017). The bifactor model is similar to the higher-order model in its ability to simultaneously demonstrate multidimensionality *and* a single construct of emotion dysregulation, however, it differs in its assumption that the higher-order factor, called the general factor, directly explains unique item-level variation (Reise 2012; Reise, Moore, & Haviland, 2010). Thus, there is consistent evidence that the DERS is best represented as a multidimensional instrument, yet, research characterizing that multidimensionally has been relatively inconsistent.

Several research studies have found evidence questioning the utility of the emotion awareness factor, noting that it does not exhibit adequate internal consistency, reliably relate to other DERS factors, or predict clinical outcomes in expected ways (Bardeen, Fergus, Hannan, & Orcutt, 2016; Weinberg & Klonsky, 2009). For example, Bardeen et al. (2012) investigated if the awareness subscale truly captured the same construct as other DERS

subscales. Comparing multiple models, they found that models best fit the data when awareness items were excluded, suggesting that the awareness subscale differed from other dimensions, and thus, should not be included in the DERS total score. Such findings led Bardeen et al. (2016) to perform a series of follow-up examinations to assess if problems with awareness items were due to method effects (i.e., they are the only items that are reverse-coded) or conceptual differences. First, they rewrote all reverse-coded items so that reverse-coding was not necessary, and they ensured all items used the same sentence stems. Second, they evaluated this modified version using exploratory and confirmatory factor analytic techniques. With awareness items rewritten, they discovered that the awareness and clarity items loaded onto the same factor and that a new, higher-order model that contained five second-order factors best fit the data. Collectively, these results indicated issues with the awareness items as originally written.

To extend these findings, Osborne et al. (2017) found that a bifactor model that excluded awareness from the general factor best fit the data in a clinical sample of adult outpatients. This supported Bardeen et al.'s (2016) findings by providing further evidence that the original, reverse-coded awareness items did not assess the same construct as the other five DERS subscales. Additionally, multiple studies suggest that models excluding awareness show the best fit (Hallion, Steinman, Tolin, & Diefenbach, 2018; Osborne et al., 2017). Conflicting with these findings, however, Skutch et al. (2019) found support for the association between emotion awareness and depression in a sample of undergraduate students, though they did not examine the differential fit of models including and excluding the awareness items. Although most findings indicate that excluding or rewriting awareness items adds value to the conceptualization and measurement of emotion dysregulation, the mixed findings in the literature warrant further examination of this issue.

Not only have the factor structure and the usefulness of the awareness subscale proposed unique challenges to the conceptualization and psychometric soundness of the DERS, but its long length has also called into question its utility. Given this, several psychometric evaluations have been performed to evaluate the characteristics of its three primary brief versions: DERS-16 (i.e., 16 items that exclude Awareness items; Bjureberg et al., 2016), DERS-SF (i.e., 18 items with three items loading onto each of the six subscales; Kaufman et al., 2016), and DERS-18 (i.e., 18 items that include the three highest loading items from the six subscales from the original 36-item DERS study; Victor & Klonsky, 2016). In terms of factor structure, among adults seeking psychological treatment, a bifactor structure appears to be the best fit all three forms (Hallion et al., 2018). However, when examining reliability and validity, the three versions appear comparable and may even be slightly better at relating to symptoms of borderline personality disorder (BPD) and depression than the full DERS-36 (Skutch et al. 2019). Brief versions that retained subscale scores (i.e., DERS-SF and DERS-18) have shown strong concurrent validity given their ability to predict current symptoms of depression, anxiety, and BPD (Skutch et al., 2019). However, using multiple brief versions could create difficulty comparing results across studies and lead to further confusion about the definition and operationalization of emotion regulation. Thus, in line with best practices regarding instrument refinement (Smith & McCarthy, 1995), continued psychometric research on these brief versions across different populations is needed to reach agreement about which version to use consistently across emotion regulation research.

Despite this wealth of psychometric research, there has been limited attention to evaluating the DERS' psychometric properties in racial and ethnic minority samples in the United States. Although numerous studies have examined adapted and translated versions of the DERS in international samples (e.g., Turkey, Portugal, Spain, Brazil, Chile; Coutinho, Ribeiro, Ferreirinha, & Dias, 2010; Guzmán-González, Trabucco, Urzúa, Garrido, & Leiva, 2014; Hervás & Rafael, 2008; Miguel, Giromini, Colombarolli, Zuanazzi, & Zennaro, 2017; Sarıtaş-Atalar, Gençöz, & Özen, 2015), there appears to be only one study that specifically investigated the DERS' psychometric properties across demographics, like gender and race, in a diverse adult sample (Ritschel et al., 2015). In a sample of college students, which included 75.6% women and 24.4% men, and 42.5% White, 40.4% Black, and 17.1% Asian participants, DERS' psychometrics were comparable across men and women as well as among the three ethnic groups, such that the six-factor correlated model fit best for all groups. Although the properties were not examined at the intersection of race and gender (e.g., Black women, Asian men), this provides initial evidence for the DERS' cross-cultural relevance and supports the need for additional studies that assess if the DERS is reliable and valid among U.S. racial and ethnic minority samples, especially

among those with clinically elevated symptomatology in a community setting. Additionally, given the well-documented issues with the awareness subscale, it is unclear if and how these concerns relate to its use in minority samples. Moreover, additional research is needed to identify the utility of the short forms in different populations and their construct validity in relation to clinical outcomes relevant to PTSD (e.g., depression; Post, Feeny, Zoellner, & Connell, 2016). Such information is imperative for researchers and clinicians alike who need to reliably and validly assess emotion regulation difficulties among diverse populations.

Rates of trauma exposure and the subsequent development of psychiatric problems like PTSD and depression are particularly high among Black Americans living in urban communities characterized by low socioeconomic conditions and substantial violence (Gillespie et al., 2009). Black women are among those at greatest risk for PTSD and depression (Olff, Langeland, Draijer, & Gersons, 2007). Emotion regulation strategies may be one mechanism that contributes to such risk. Both anthropological and psychological literatures indicate that one's expression and regulation of emotions can signify individuality or undermine social harmony; therefore, how they are experienced and modulated is often shaped by cultural values and beliefs (Ford & Mauss, 2015). For Black women, in particular, cultural expectations to embody strength vis-à-vis emotional suppression, extraordinary caregiving, and self-reliance, may yield either adaptive or maladaptive emotion regulation. However, how well current conceptualizations of emotion regulation fit Black women's emotion regulation processes remains unclear, given that this group has not been the target of psychometric research with these measures. Although the DERS, a widely used measure of emotion regulation difficulties, has yielded promising findings in Black samples (Graham, Calloway, & Roemer, 2015; Harrington, Crowther, & Shipherd, 2010), its factor structure, reliability, and validity have not been systematically assessed in this population.

1.1 | THE CURRENT STUDY

The current study is an effort to enhance our understanding of the DERS' psychometric properties in a sample of low-income Black women to ensure its sociocultural relevance and utility by pursuing three key goals. First, based on previous factor analytic models identified in the literature, we tested and compared several models of the 36-item DERS with and without the awareness subscale. We hypothesized that models without awareness items would fit better than models with these items, although no a priori hypotheses were made regarding model fit. Second, we examined the factor structure of the three short form versions to assess which model best fit the data. Based on prior research (Hallion et al., 2018; Skutch et al., 2019), we hypothesized that all three short forms would have acceptable fit indices. We examined reliability estimates associated for the full and short forms, and we hypothesized that all subscales, with the exception of the awareness subscale, would reflect adequate to good internal consistency. Third, to evaluate construct validity, we examined whether individuals experiencing psychopathology characterized by significant emotion dysregulation (e.g., PTSD, major depressive disorder [MDD]) had higher DERS scores than those who did not. More specifically, we examined whether DERS scores differed based on PTSD diagnosis (current, lifetime, or no diagnosis), MDD diagnosis (current, lifetime, or no diagnosis), and comorbid diagnoses (i.e., both disorders, either MDD or PTSD, or none). We hypothesized that individuals with current clinical diagnoses would exhibit higher levels of emotion regulation difficulties than individuals with lifetime or no diagnoses, and individuals with co-occurring PTSD and MDD would display more emotion regulation difficulties than people with only PTSD or MDD or neither disorder.

2 | METHOD

2.1 | Procedure

These data were collected as part of the Grady Trauma Project, a study of risk and resilience to PTSD that began in 2005 (for a more detailed description of study methodology, see Gillespie et al., 2009). Participants were Black

women recruited from waiting rooms in nonpsychiatric (e.g., gynecology, primary care, and diabetes) clinics at a publicly funded, non-profit hospital in Atlanta, GA, that serves a low-income population. Participants were approached if they appeared to be available to talk (e.g., not talking to someone else or talking on the phone) and were not approached based on specific phenotypic criteria. To be eligible for participation, women had to be at least 18 years old, not actively psychotic, and able to give informed consent. If willing to participate, individuals signed the informed consent approved by the university IRB and the Research Oversight Committee of Grady Memorial Hospital, and an initial interview was administered with questionnaires regarding trauma history and other psychological variables. Trained research assistants administered this interview (approximately 45–75 min depending on trauma history) in private areas of the waiting rooms of the hospital. All women were compensated $15 for their time. Participants were invited to complete a follow-up clinical interview as part of other ongoing research studies in the laboratory which averaged 2–3 h to complete. For this portion, participants were compensated $60.

2.2 | Participants

The final sample consisted of 667 Black women, ages 18–65 (M = 40.76, SD = 12.15). The majority of participants were unemployed (65.4%) and 77.6% had a household monthly income of $1,999 or less. The education level of participants was as follows: 18.4% had less than a 12th grade education, 34.8% completed high school or equivalent, 25.9% completed some college or technical school, 17.8% graduated from college or technical school, and 2.5% completed graduate school. Most of the participants were single or never married (56.8%), and the rest were either married (9.9%), divorced or separated (23.9%), widowed (3.3%), or living with a domestic partner (5.5%).

Participants reported experiencing several (M = 5.12, SD = 3.32) different traumatic experiences (e.g., serious accident, sexual assault, witnessing violence). Most participants (91.9%) reported witnessing or experiencing interpersonal traumas, and a little over half (51%) reported experiencing either sexual, physical, or emotional abuse during childhood. In terms of diagnoses, 36.44% met the criteria for current PTSD and 24.29% met the criteria for lifetime (excluding current) PTSD. For depressive symptoms, 24.52% met the criteria for current MDD and 27.46% met the criteria for lifetime (excluding current) MDD.

2.3 | Measures

The MINI International Neuropsychiatric Interview (MINI) for DSM-IV-TR is a validated and reliable structured diagnostic interview that assesses mood, anxiety, substance use, and psychotic disorders (Sheehan et al., 1998). In a study examining MINI validity according to the Structured Clinical Interview for DSM-IV (SCID) axis 1 disorders, the MINI modules demonstrated excellent interrater reliability (IRR; k's = 0.75–0.90), and largely demonstrated good test-retest reliability (k's > 0.75) with the exception of current mania (k < 0.40). It contains 120 questions and screens 17 axis I DSM-IV disorders, though the present study only included the current and lifetime MDD module and lifetime PTSD modules to assess the presence or absence of MDD and lifetime PTSD.

The Clinician-Administered PTSD Scale (CAPS) is a psychometrically validated and standardized interviewer-administered diagnostic instrument for current PTSD based on DSM criteria (Blake et al., 1998; Weathers et al., 2013). The CAPS-5 total severity score demonstrated high internal consistency (α = .88) and IRR (intraclass correlation coefficient [ICC] = 0.91), as well as good test-retest reliability (ICC = 0.78). Convergent validity with the CAPS-IV total severity score was also good (r = .83). IRR in this sample has been previously reported and has shown good IRR for current diagnosis of PTSD (k = 0.83; Powers et al., 2017). The CAPS for DSM-IV and DSM-5 were both used in this study with adoption of the CAPS-5 upon its release. Thirty-two percent of participants were assessed

using CAPS-IV, and 66.3% using CAPS-5. Scores on the DERS subscales did not differ based on the version of the CAPS used.

The DERS-36 is a 36-item self-report measure that assesses problems with emotion regulation (Gratz & Roemer, 2004). It captures six dimensions of emotion regulation, including (a) attention to and awareness of emotions (reverse-scored); (b) acceptance of one's emotions; (c) the ability to execute goal-directed behavior; (d) the ability to inhibit impulsive behavioral urges; (e) access to contextually appropriate emotion regulation strategies; and (f) clarity into one's emotional state (Awareness, Acceptance, Goals, Impulse, Strategies, and Clarity, respectively). Items are rated on a Likert-type scale of 1 (almost never, 0%–10%) to 5 (almost always, 91%–100%) and are averaged to yield a total score and subscale scores, with higher scores suggesting greater severity of emotion regulation difficulties.

2.4 | Data analytic plan

2.4.1 | Confirmatory factor analyses (CFAs)

To establish the factor structure of the DERS in this urban sample of Black women, we tested previously identified factor structures of the DERS-36 using CFA in MPlus 8.0 (Muthén & Muthén, 1998–2017). These included two unidimensional models with and without the awareness items, two correlated trait models, including the original six-factor (Gratz & Roemer, 2004) and five-factor model without awareness items (Bardeen et al., 2012), two higher-order models (Benfer et al., 2018) with and without the awareness items, and two bifactor models (Osborne et al., 2017) with and without the awareness items. Then, the same CFA models described above were run for DERS-SF models (Kaufman et al., 2016) with and without the awareness items, DERS-18 models (Victor & Klonsky, 2016) with and without awareness, and the DERS-16 model, which did not have awareness items (Bjureberg et al., 2016).

2.4.2 | Fit indices

Given the categorical response format of the DERS, we used a robust weighted least squares estimation procedure in MPlus which evidence superior performance for ordinal items (Beauducel & Herzberg, 2006; Li, 2016). We used several indices to assess model fit according to conventional standards, including: a significant χ^2 value which would indicate that the model reproduces the observed covariance matrix adequately (Satorra & Bentler, 1994), a comparative fit index (CFI) and Tucker Lewis Index (TLI) of 0.95 or higher which indicates good model fit (Hu & Bentler, 1999), a root mean square error of approximation (RMSEA) <0.06 (and between 0.06 and 0.08 for adequate fit) which indexes the differences between the observed and hypothesized covariance matrices and indicates greater absolute fit (Brown, 2006), and a weighted root mean square residual (WRMR) of <1.0 which indicates adequate model fit specifically for this type of data (DiStefano, Liu, Jiang, & Shi, 2018). Given that the majority of our models were non-nested, we used a CFI change of 0.01 or greater (Cheung & Rensvold, 2002) and nonoverlapping RMSEA confidence intervals (Curran, Bollen, Chen, Paxton, & Kirby, 2003) as evidence of comparative model fit.

2.4.3 | Multivariate analyses

To test our hypotheses regarding the DERS and psychopathology, we ran three multivariate analysis of variances (MANOVA) models in SPSS (IBM SPSS Statistics for Mac, Version 26, 2017). Compared to running

separate analyses for each outcome, a multivariate approach offers the benefit of reducing the possibility of Type I error (Warne, 2014). In the first analysis, we included PTSD and its three levels (absent, current, lifetime but not current) as our independent variables and the DERS subscales as our dependent variables. In the second analysis, we included MDD and its three levels (absent, current, lifetime but not current) as our independent variables and the DERS subscales as our dependent variables. To test our hypotheses regarding comorbidity in the third analysis, we collapsed the "current" and "lifetime" designation and created four groups based on their PTSD and MDD diagnosis: PTSD and MDD, PTSD only, MDD only, and No PTSD or MDD. We included comorbidity status and its four levels as our independent variables and the DERS subscales as our dependent variables.

3 | RESULTS

A summary of the fit indices for the CFAs can be found in Table 1 and a summary of the internal reliabilities can be found in Table 2.

3.1 | Confirmatory factor analyses

3.1.1 | DERS-36

Across the unidimensional, correlated traits, higher-order, and bifactor models using the DERS-36 (with and without awareness), none of the models evidenced adequate fit. The relatively best fitting model was the bifactor model without awareness items, which demonstrated adequate RMSEA and CFA, but was below threshold for the TLI and WRMR.

3.1.2 | DERS-SF

With the exception of the unidimensional models, the fit indices for the DERS-SF were generally stronger compared to the DERS-36. The bifactor (without awareness) model was the only DERS-SF model evidencing adequate fit across all fit indices.

3.1.3 | DERS-18

Similar to the DERS-SF, the DERS-18 models generally evidenced superior fit compared to the DERS-36. Although direct comparisons could not be made between the DERS-18 and the DERS-SF because they are non-nested models, it is notable that for the DERS-18, the correlated trait models (with and without awareness) and the bifactor model (without awareness) evidenced adequate fit across all fit indices. Of these three, the correlated traits model without the awareness items appeared to have the best fit due to its relatively lower WRMR value. As depicted in Table 3, the standardized factor loadings for the correlated trait models with and without awareness were essentially identical, with deviations <0.02 for items 4, 13, and 21. This was also consistent for the higher-order models, with deviations <0.02 for items 9, 13, 18, and 26. This suggests that the stability of the domain-specific loadings are not affected by the presence of the awareness items.

For the DERS-18 bifactor model, the three strategies items and two of the impulse items had particularly high loadings on the general factor (and low loadings on their respective domain-specific factors).

TABLE 1 Summary of fit indices

	Parameters	χ^2	*df*	RMSEA, 95% [LL, UL]	CFI	TLI	WRMR
DERS-36							
Unidimensional (all items)	180	5572.15	594	0.11 [0.11, 0.12]	0.82	0.81	2.91
Unidimensional (no awareness)	150	3809.02	405	0.11 [0.11, 0.12]	0.87	0.86	2.65
Correlated traits (all items)	195	2914.61	579	0.08 [0.08, 0.08]	0.92	0.91	1.87
Correlated traits (no awareness)	160	2069.36	395	0.08 [0.08, 0.08]	0.93	0.93	1.69
Higher-order (all items)	186	3298.45	588	0.08 [0.08, 0.09]	0.90	0.90	2.11
Higher-order (no awareness)	155	2001.71	400	0.08 [0.07, 0.08]	0.94	0.93	1.75
Bifactor (all items)	216	2978.71	558	0.08 [0.08, 0.08]	0.91	0.90	1.92
Bifactor (no awareness)	180	1646.64	375	0.07 [0.07, 0.08]	0.95	0.94	1.51
DERS-SF							
Unidimensional (all items)	90	2091.69	135	0.15 [0.14, 0.15]	0.85	0.85	2.81
Unidimensional (no awareness)	75	1570.93	90	0.16 [0.15, 0.16]	0.88	0.86	2.79
Correlated traits (all items)	105	431.60	120	0.06 [0.06, 0.07]	0.98	0.97	1.05
Correlated traits (no awareness)	85	329.29	80	0.07 [0.06, 0.08]	0.98	0.97	1.00
Higher-order (all items)	96	538.16	129	0.07 [0.06, 0.08]	0.97	0.96	1.30
Higher-order (no awareness)	80	337.25	85	0.07 [0.06, 0.07]	0.98	0.98	1.13
Bifactor (all items)	108	448.68	117	0.07 [0.06, 0.07]	0.98	0.97	1.16
Bifactor (no awareness)	90	242.43	75	0.06 [0.05, 0.07]	0.99	0.98	.93
DERS-18							
Unidimensional (all items)	90	2251.58	135	0.15 [0.15, 0.16]	0.84	0.82	3.03
Unidimensional (no awareness)	75	1727.55	90	0.17 [0.16, 0.17]	0.87	0.85	3.06
Correlated traits (all items)	105	367.72	120	0.06 [0.05, 0.06]	0.98	0.98	.96
Correlated traits (no awareness)	**85**	**261.09**	**80**	**0.06 [0.05, 0.07]**	**0.99**	**0.98**	**.89**
Higher-order (all items)	96	505.23	129	0.07 [0.06, 0.07]	0.97	0.97	1.28
Higher-order (no awareness)	80	297.08	85	0.06 [0.05, 0.07]	0.98	0.98	1.07
Bifactor (all items)	108	441.45	117	0.06 [0.06, 0.07]	0.98	0.97	1.17
Bifactor (no awareness)	90	253.71	75	0.06 [0.05, 0.07]	0.99	0.98	.97
DERS-16							
Unidimensional (all items)	80	1133.14	104	0.12 [0.12, 0.13]	0.92	0.91	2.06
Correlated traits (all items)	90	519.28	94	0.08 [0.08, 0.09]	0.97	0.96	1.20
Higher-order (all items)	85	590.42	99	0.09 [0.08, 0.09]	0.96	0.96	1.38

Note: Boldfaced row indicates best fitting model that was retained for subsequent analyses.

This suggests that the variance in these items may be better accounted for by the general factor relative to their respective domain-specific factors. While the relatively lower factor loadings on the domain-specific factors could be due to high loadings on the general factor for those items, this was not the case for the nonacceptance and some clarity items. For example, in the correlated traits and higher-order models, the nonacceptance items loadings were 0.88 and above, whereas, in the bifactor models, they did not load highly on either the nonacceptance factor (0.62–0.64) or the general factor (0.61–0.63). This suggests that in the context of an overarching emotion dysregulation factor, those items did not appear to be a part of that general construct, nor did they maintain their own independent, domain-specific factor. However, their relatively high loadings in the correlated traits model suggest they may usefully capture a construct related to the non-acceptance of emotions. Consistent with previous evidence, the awareness items had the lowest loadings on

TABLE 2 Reliability estimates of the full and short forms of the DERS

	DERS-36	DERS-SF	DERS-18	DERS-16
Total	0.94	0.90	0.89	0.92
Nonacceptance	0.88	0.83	0.85	0.75
Goals	0.84	0.83	0.83	0.86
Impulse	0.86	0.86	0.86	0.86
Clarity	0.77	0.72	0.72	0.65
Strategies	0.86	0.76	0.75	0.82
Awareness	0.74	0.61	0.63	/
Total (without awareness)	0.95	0.91	0.91	/

Note: The DERS-16 version does not contain awareness items.

the general factor, suggesting that they may not fit within the general factor of emotion dysregulation. Their relatively inferior general fit on the domain-specific factor of awareness suggests that in contrast to the nonacceptance items, these items may not adequately represent a unique construct regardless of the general factor context. Given that the fit indices were strongest for the DERS-18 correlated traits model without awareness, this model was retained for the subsequent multivariate analyses.

3.1.4 | DERS-16

Finally, we found that although the DERS-16 correlated traits model evidenced the strongest relative fit compared to the DERS-16 higher-order model, none of the models evidenced adequate fit across all fit indices. Notably, the bifactor model would not converge despite variations in iterations and starting values. We thus did not retain the DERS-16 for subsequent analyses and opted to use the DERS-18 correlated traits model instead.

3.2 | Multivariate analyses

3.2.1 | PTSD analysis

In the first model, we tested the effect of PTSD diagnosis on DERS scores using a MANOVA. We found that Levene's Tests of Equality of Error Variances were significant across all five subscales, suggesting that the error variance was unequal across groups. This was likely due to the relatively higher error variance in the participants with current and lifetime PTSD compared to those without PTSD (see top panel of Table 4). We, therefore, used Pillai's trace as an indicator of statistical significance, given its robustness to many violations of assumptions in multivariate analyses (Olson, 1976; Warne, 2014). Consistent with our first prediction, the multivariate effect was significant for PTSD diagnosis, $V = 0.25$, $F = 15.98$, $df = (10, 1124)$, $p < .01$, $\eta_p^2 = 0.12$. The univariate follow-up tests revealed significant effects for all five DERS subscales (see top panel of Table 5). Based on the heterogeneous variance (Howell & Games, 1974), we used the Games-Howell procedure for follow-up tests and found that individuals with current PTSD reported significantly more dysregulation across all five subscales relative to individuals without PTSD and those with lifetime PTSD. Compared to individuals without PTSD, those with lifetime PTSD had higher dysregulation for the Nonacceptance, goals, impulse, and strategies subscales, but not the clarity subscale.

TABLE 3 Factor loadings for the DERS-18 for the correlated traits, higher order, and bifactor models

#	DERS Item	With awareness				Without awareness			
		Correlated traits	Higher order	Bifactor		Correlated traits	Higher order	Bifactor	
		Non acceptance			General	Non acceptance			General
12	When I'm upset, I become embarrassed for feeling that way	0.89	0.89	0.62	0.63	0.89	0.89	0.61	0.63
21	When I'm upset, I feel ashamed with myself for feeling that way	0.89	0.89	0.64	0.61	0.88	0.89	0.64	0.62
25	When I'm upset, I feel guilty for feeling that way	0.88	0.88	0.64	0.61	0.88	0.88	0.64	0.61
		Goals				Goals			
13	When I'm upset, I have difficulty getting work done	0.81	0.81	0.49	0.66	0.82	0.82	0.47	0.68
18	When I'm upset, I have difficulty focusing on other things	0.87	0.87	0.53	0.71	0.87	0.86	0.53	0.71
26	When I'm upset, I have difficulty concentrating	0.85	0.86	0.43	0.71	0.85	0.85	0.42	0.72
		Impulse				Impulse			
14	When I'm upset, I become out of control	0.89	0.89	0.41	0.75	0.89	0.89	0.40	0.76
27	When I'm upset, I have difficulty controlling my behaviors	0.93	0.93	0.49	0.76	0.93	0.93	0.49	0.76
32	When I'm upset, I lose control over my behaviors	0.88	0.88	0.67	0.68	0.88	0.88	0.67	0.69
		Clarity				Clarity			
4	I have no idea how I am feeling	0.69	0.69	0.55	0.57	0.68	0.69	0.59	0.54
5	I have difficulty making sense out of my feelings	0.80	0.80	0.36	0.69	0.80	0.80	0.40	0.67
9	I am confused about how I feel	0.84	0.84	0.36	0.72	0.85	0.85	0.39	0.70
		Strategies				Strategies			
15	When I'm upset, I believe that I will remain that way for a long time	0.78	0.78	0.36	0.74	0.78	0.78	0.38	0.74
16	When I'm upset, I believe that I'll end up feeling very depressed	0.84	0.84	0.23	0.80	0.84	0.84	0.20	0.81
31	When I'm upset, I believe that wallowing in it is all I can do	0.77	0.77	0.16	0.73	0.77	0.77	0.14	0.74
		Awareness							
2[a]	I pay attention to how I feel	0.87	0.88	0.56	0.50				
6[a]	I am attentive to my feelings	0.68	0.69	0.64	0.38				
10[a]	When I'm upset, I acknowledge my emotions	0.43	0.42	0.54	0.12				

[a]Reverse-scored items.

TABLE 4 Group means and SDs by DERS-18 subscale

	PTSD diagnosis					
	Current (n = 207)		Lifetime (n = 138)		Absent (n = 223)	
Nonacceptance	2.21	*1.10*	1.79	*0.97*	1.41	*0.64*
Goals	2.90	*0.98*	2.20	*0.94*	1.86	*0.84*
Impulse	2.01	*1.07*	1.51	*0.68*	1.32	*0.58*
Clarity	2.18	*0.92*	1.72	*0.81*	1.55	*0.69*
Strategies	2.19	*1.00*	1.60	*0.69*	1.34	*0.60*
	MDD diagnosis					
	Current n = 142		Lifetime n = 159		Absent n = 278	
Nonacceptance	2.26	*1.16*	1.89	*1.01*	1.47	*0.71*
Goals	3.00	*1.17*	2.38	*1.00*	1.87	*0.85*
Impulse	2.02	*1.03*	1.62	*0.83*	1.39	*0.70*
Clarity	2.30	*0.89*	1.71	*0.76*	1.59	*0.76*
Strategies	2.30	*1.00*	1.68	*0.81*	1.37	*0.59*
	Comorbid diagnoses					
	No disorder n = 174		PTSD only n = 84		MDD only n = 47		MDD and PTSD n = 246	
Nonacceptance	1.34	*0.56*	1.77	*0.88*	1.68	*0.83*	2.14	*1.12*
Goals	1.73	*0.77*	2.18	*0.86*	2.36	*0.92*	2.75	*1.16*
Impulse	1.27	*0.52*	1.65	*0.93*	1.54	*0.76*	1.86	*0.97*
Clarity	1.51	*0.69*	1.83	*0.88*	1.74	*0.68*	2.04	*0.90*
Strategies	1.25	*0.49*	1.65	*0.73*	1.67	*0.84*	2.04	*0.98*

Note: Lifetime indicates that they met criteria in the past, but not currently. Italicized values indicate standard deviation.

3.2.2 | MDD analysis

Similar to the results for PTSD and consistent with our hypothesis, the multivariate effect was significant for MDD diagnosis, V = 0.26, F = 17.46, df = (10, 1124), p < .01, η_p^2 = 0.13. The univariate follow-up tests revealed significant effects for all five DERS subscales (see middle panels of Tables 4 and 5). Based on the Games-Howell follow-up tests, we found that individuals with current MDD reported significantly more dysregulation across all five subscales relative to individuals without MDD and those with lifetime MDD. Similar to the results for PTSD, we found that compared to individuals without MDD, those with lifetime MDD had higher dysregulation for the nonacceptance, goals, impulse, and strategies subscales, but not the clarity subscale.

3.2.3 | Comorbidity analysis

Our final multivariate effect was significant for comorbidity status, V = 0.23, F = 8.84, df = (15, 1635), p < .01, η_p^2 = 0.08. Similar to the previous analyses, univariate follow-up tests revealed significant effects for all five DERS

TABLE 5 Summary of univariate and posthoc analyses examining DERS differences by diagnoses

	F	*df*	*p*	η_p^2	Significant posthoc tests[a]
PTSD diagnosis					
Nonacceptance	41.41	2, 576	<.01	0.13	Current > lifetime > absent
Goals	60.41	2, 576	<.01	0.18	Current > lifetime > absent
Impulse	40.33	2, 576	<.01	0.13	Current > lifetime > absent
Clarity	33.99	2, 576	<.01	0.11	Current > lifetime, absent
Strategies	64.16	2, 576	<.01	0.19	Current > lifetime > absent
MDD diagnosis					
Nonacceptance	35.73	2, 578	<.01	0.11	Current > lifetime > absent
Goals	63.68	2, 578	<.01	0.18	Current > lifetime > absent
Impulse	27.28	2, 578	<.01	0.09	Current > lifetime > absent
Clarity	37.77	2, 578	<.01	0.12	Current > lifetime, absent
Strategies	68.50	2, 578	<.01	0.19	Current > lifetime > absent
Comorbid diagnoses					
Nonacceptance	66.45	3, 550	<.01	0.13	Comorbid > PTSD, MDD and none/ PTSD and MDD > none
Goals	35.52	3, 550	<.01	0.17	Comorbid > PTSD and none/PTSD and MDD > none
Impulse	11.94	3, 550	<.01	0.09	Comorbid and PTSD > none
Clarity	9.78	3, 550	<.01	0.07	Comorbid and PTSD > none
Strategies	21.21	3, 550	<.01	0.15	Comorbid > PTSD, MDD and none/ PTSD and MDD > none

[a]Posthoc tests based on the Games-Howell procedure.

subscales (see bottom panels of Tables 4 and 5). Our follow-up tests showed that individuals with both PTSD and MDD had relatively higher scores on the nonacceptance and strategies subscales compared to individuals with only PTSD, only MDD, and neither disorder. For the goals subscale, the PTSD and MDD group had significantly higher scores compared to those with only PTSD and neither disorder, and for the impulse and clarity subscales, they only had higher scores relative to those with neither disorder. Individuals with only PTSD had higher scores on all DERS subscales compared to those with neither PTSD nor MDD. Finally, individuals with only MDD had higher scores on the nonacceptance, goals, and strategies subscales compared to those with neither PTSD nor MDD. Those with only PTSD and those with only MDD did not differ from each other on any subscales.

4 | DISCUSSION

The current study systematically examined the factor structure, reliability, and construct validity of the DERS, a comprehensive measure of emotion dysregulation, in a community sample of Black women with considerable trauma exposure and psychiatric symptoms. Ultimately, the best-fitting model was the correlated traits model without awareness items for the DERS-18. Consistent with mounting support for the validity of the DERS (Hallion et al., 2018; Skutch et al., 2019), these results suggest that the subscales of the DERS usefully differentiate disorder-specific deficits in emotion dysregulation. Utilizing this tool can advance the understanding of PTSD and MDD comorbidity by identifying the psychological processes that could theoretically give rise to shared components (e.g., negative affect).

Regarding factor structure, across all of the CFAs, we found that DERS-18 correlated traits model without awareness ultimately demonstrated the best fit, but that the DERS-18 correlated traits model with awareness, the DERS-18 bifactor model without awareness, and the DERS-SF bifactor model without awareness also met our criteria in terms of chi-square test, RMSEA, CFI, TLI, and WRMR. In support of previous research (e.g., Osborne et al., 2017), we observed a general pattern wherein exclusion of the awareness items resulted in a better fitting model. Furthermore, we found that the awareness subscale demonstrated consistently lower reliability across models. This poor performance may be the result of a combination of statistical and conceptual factors, including the inclusion of exclusively reverse-scored items and the unique focus compared to other subscales (e.g., noticing emotions rather than reacting to them; Hallion et al., 2018). Additionally, the relatively weaker fit of the higher-order models suggests that using the DERS subscales, rather than the total score, could be the most effective way to use the scale. This approach is supported by evidence of differential associations between DERS subscales and relevant psychopathology outcomes (Skutch et al., 2019).

It is important to note that easing the WRMR criteria would add most of the DERS-SF and DERS-18 models into the acceptable category (with the exception of the unidimensional models) which is consistent with prior research supporting the use of all shortened versions (Hallion et al., 2018; Skutch et al., 2019). One reason that the fit indices for the DERS-18 and DERS-SF were especially comparable was that the goals, impulse, and clarity subscales had identical items and the nonacceptance subscales shared two (out of three) items. The strategies subscales, however, shared only one (out of three) items, suggesting that the slightly better fit of the DERS-18 could be accounted for by superior selection of items for the strategies subscale (i.e., items that are the highest loading on the DERS-36 subscale). Although the short forms were originally developed in part by retaining the highest loading items on each subscale, it appears that in our sample, neither the DERS-18 or DERS-SF strategies subscales retained the two highest loading items on the DERS-36 strategies subscales, suggesting that the items retained for the strategies subscales likely do not explain the difference. Nevertheless, although the adequate fit indices of the DERS-SF and DERS-18 preclude an unequivocal recommendation either way, the slightly superior fit indices of the DERS-18 deem it most appropriate for use with Black women.

In terms of internal consistency, the DERS-18 evidenced high reliability for the total score without awareness, but the subscale estimates ranged from acceptable to good. Although these estimates may, in a general sense, be considered adequate because they are above the standard 0.70 cut-off (Martin & Savage-McGlynn, 2013), they may be problematic when used in the context of clinical intervention research. The field's emphasis on examining clinically significant change (vs. statistically significant change) to determine the efficacy of interventions is contingent on outcome measures functioning in a reliable manner (Kazdin, 1999). For example, the ability to effectively determine clinically significant change, including statistical tools such as the reliable change index (Jacobson & Truax, 1991) and the method of equivalence testing (Kendall, Marrs-Garcia, Nath, & Sheldrick, 1999), rely on measurements having a high internal reliability. Inadequate reliability may result in biased estimates that obfuscate our understanding of the true efficacy of clinical interventions (Beutler & Moleiro, 2001). Thus, in the context of intervention research, reliability estimates were not adequate across all subscales of the DERS, suggesting a need for intervention researchers to be particularly intentional about their DERS measurement choices.

The results of the group difference analyses indicated that participants with a current diagnosis of PTSD or MDD reported greater emotion dysregulation compared to individuals with lifetime or no history of PTSD or MDD, respectively. These findings are consistent with previous literature documenting the DERS' positive associations with current PTSD and MDD symptoms (Cloitre et al., 2019). Notably, however, although the mean subscale scores for participants who did not report psychopathology were comparable to those reported in nonclinical samples (e.g., Gratz & Roemer, 2004) those reporting psychopathology were not as high as scores reported in clinical samples (e.g., Osborne et al., 2017). Nevertheless, we also found that women with lifetime but not current PTSD or MDD, in turn, reported greater emotion dysregulation relative to individuals with no history of PTSD or MDD, respectively, for all subscales except clarity. Thus, remission from PTSD and MDD does necessarily generalize to "remission" from many domains of emotion dysregulation and may be associated with impairment in functioning

(Johnson, Zlotnick, & Zimmerman, 2003). The lack of differentiation between women with lifetime versus no history of PTSD or MDD on the clarity subscale, however, could indicate that an increase in the capacity to have clarity about emotions is characteristic of remitted PTSD and MDD symptoms. Consistent with this interpretation, in a sample of Black students, Weiss et al. (2012) that individuals with a probable PTSD diagnosis (vs. individuals with no criterion A trauma event and individuals with a criterion A event but no PTSD) reported higher dysregulation on the nonacceptance, goals, impulse, and strategies subscales, but not on the clarity subscale.

Evidence that PTSD and MDD comorbidity is associated with more impairment (Campbell et al., 2007) and poorer treatment prognosis (Angelakis & Nixon, 2015) warrants further examination of emotion dysregulation based on comorbidity status. The rate of co-occurrence of PTSD and MDD diagnoses in our sample (45%) compared to PTSD only (15%) and MDD only (9%) suggests notably high co-occurrence of these disorders. Although the comorbid group had higher emotion dysregulation for all subscales compared to the no disorder group, their scores were only higher (vs. PTSD and MDD only groups) for the nonacceptance and strategies subscales and higher (vs. PTSD only group) for the goals subscale. This suggests that the nonacceptance and strategies factors, relative to impulse and clarity factors, seemed especially sensitive to the impact of PTSD and MDD comorbidity compared to only having either PTSD or MDD. Similar to the comorbid group, the PTSD only (vs. no disorder) group reported higher emotion dysregulation for all subscales, suggesting dysregulation across numerous domains. Diverging from this pattern, the MDD only group differed from the no disorder group on the nonacceptance, goals, and strategies factors, but not the impulse or clarity factors. Consistent with comorbidity results and with the phenomenology of depression, this could mean that difficulties with impulse control and emotional clarity may play a relatively smaller role in non-comorbid MDD psychopathology.

4.1 | Implications for multicultural clinical research and practice

The current study's findings can inform multicultural clinical research and practice in a number of ways. Concerning research, these findings can lead to the development of emotion regulation theoretical models for Black women that incorporate cultural and contextual understandings. First, the support of a correlated traits model suggests that emotion regulation processes are multidimensional in this sample. This means there are different, meaningful emotion regulation processes that deserve separate empirical attention. Second, support for the DERS subscales over a single total score indicates that each of these processes may uniquely predict health outcomes in this group. This is important because, to date, emotion inhibition (and its related constructs, like self-silencing and repressive coping) has been the main emotional regulation process studied among Black women, often using measures like the Silencing the Self and the Index of Self-Regulation of Emotion (Abrams, Hill, & Maxwell, 2019; Harrington et al., 2010). Although emotional inhibition is a primary coping process identified within the "Strong Black Woman" schema, a culturally specific and multidimensional construct internalized by many Black women to combat stress, it could be that this schema's focus on displaying strength and avoiding vulnerability reflects Black women's tendency to confront and survive oppression and adversity vis-à-vis resilience and self-efficacy. In fact, this schema emerged in light of Black women's need to survive the persistent realities of gender- and race-based oppression and socioeconomic inequities since legalized enslavement in the United States (Watson & Hunter, 2015; Woods-Giscombé, 2010). Given this, there may be instances in which adopting this schema prompts adaptive emotion regulation, such as continued engagement in goal-directed behavior despite difficult emotions and increased impulse control. Therefore, this schema may promote both adaptive and maladaptive emotion regulation strategies, both of which deserve empirical attention. Thus, better understanding these connections, through use of the DERS, may help to identify novel, culturally relevant social determinants of health in this group that influence psychological mechanisms, like emotion regulation, and risk and resilience for certain health outcomes.

With regard to these findings and multicultural clinical practice, the identification of construct validity in the DERS shorter formats for minority individuals is invaluable. Mainly, the difference between 36 and 18 items is

large in the context of treatment when a measure needs to be given numerous times throughout treatment. Although taking into consideration all of the DERS subscales allows for greater consideration of differential deficits across the various components of emotion dysregulation, intervention researchers must be vigilant about ensuring adequate reliability when assessing clinically significant change. By moving in that direction, we should be able to gain a more nuanced understanding of what aspects of emotion regulation are specifically addressed in a given treatment and what aspects may be overlooked and need greater emphasis. Furthermore, our results demonstrate the significant presence of emotion dysregulation in individuals with comorbid PTSD and MDD within this traumatized sample, which highlights the value of transdiagnostic treatment approaches that directly target emotion dysregulation. The effectiveness of CBT-based approaches in treating MDD and PTSD is well established (Cuijpers et al., 2013; Jerud, Pruitt, Zoellner, & Feeny, 2016). However, there is also growing evidence of the value of mindfulness and acceptance-based approaches in traumatized populations with PTSD and MDD (e.g., Kearney, McDermott, Malte, Martinez, & Simpson, 2012; King et al., 2013); the transdiagnostic focus on reducing non-acceptance and increasing skillfulness in mindfulness-based approaches (Gratz & Tull, 2010; Neacsiu, Eberle, Kramer, Wiesmann, & Linehan, 2014) may make it a particularly helpful treatment for individuals with comorbid PTSD and MDD in the context of chronic trauma exposure. Continued research is needed to identify the most effective culturally informed treatments that improve particular dimensions of emotion regulation for patients with chronic trauma exposure and PTSD and MDD in urban settings serving racial minority individuals.

4.2 | Limitations

Despite this study's contribution to the literature, it is not without limitations. First, the cross-sectional design prohibited us from examining important psychometric indices, such as test retest reliability and change over time. Determining the test-retest reliability could provide useful information about the stability of the DERS. Further, identifying trajectories of emotion dysregulation could be particularly useful as a way to calibrate expected gains in intervention studies targeting emotional dysregulation (Osborne et al., 2017). Identification of such trajectories may also be useful in allowing us to determine both time-variant (e.g., trauma) and time-invariant (e.g., SES) factors that may predict both increases and decreases in emotion dysregulation over time. Second, although our sample included a relatively understudied population, it is unclear whether our results would generalize to Black women from higher socioeconomic backgrounds or to Black men. Given the potential impact of gender socialization practices on the expression of emotion (e.g., stereotypical notions of masculinity), a focus on emotion dysregulation among men is warranted. Third, for the scope of this study, we focused on internalizing psychopathology and the way that our psychopathology groups were formed was limited to PTSD and MDD; therefore, the "no disorder" comparison group may have included subthreshold symptoms of PTSD or MDD or other psychopathology not assessed in the present study, which could have led to underestimating differences across groups. To remedy this, future studies should examine other disorders, including externalizing disorders (e.g., substance use disorders). Finally, although it is useful to compare DERS scores based on diagnostic classifications of psychopathology, our study was limited in that we did not examine psychopathology dimensionally. Doing so in future research would elucidate the nomological network of emotion dysregulation (Meehl, 1999) and develop a clearer and more comprehensive conceptualization of the construct.

5 | CONCLUSION

Despite considerable research supporting the psychometric properties of the DERS, there has been limited attention to evaluating its performance in racial and ethnic minority samples in the United States By providing clarity about its model fit, the utility of the awareness items, identifying useful short forms of the DERS, and demonstrating its

construct validity in a community sample of Black women, this study can increase researchers' and clinicians' ability to reliably and validly assess emotion dysregulation in diverse, typically understudied populations.

ACKNOWLEDGEMENTS

We would like to thank Rebecca Hinrichs, Angelo Brown, and the entire Grady Trauma Project team for this assistance in data collection and management for this project. This study was supported by the National Institute of Mental Health (MH071537; MH100122; MH102890; MH101380, MH115174), the National Institute of Child Health and Human Development (HD071982), the National Institute of Aging (AG062334) and the National Center for Complementary & Integrative Health (K23AT009713). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

ORCID

Yara Mekawi http://orcid.org/0000-0002-9181-2324

REFERENCES

Abrams, J. A., Hill, A., & Maxwell, M. (2019). Underneath the mask of the Strong Black Woman Schema: Disentangling influences of strength and self-silencing on depressive symptoms among U.S. Black Women. *Sex Roles*, *80*(9), 517–526. https://doi.org/10.1007/s11199-018-0956-y

Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review*, *30*(2), 217–237. https://doi.org/10.1016/j.cpr.2009.11.004

Angelakis, S., & Nixon, R. D. V. (2015). The comorbidity of PTSD and MDD: Implications for clinical practice and future research. *Behaviour Change*, *32*(1), 1–25. https://doi.org/10.1017/bec.2014.26

Bardeen, J. R., Fergus, T. A., Hannan, S. M., & Orcutt, H. K. (2016). Addressing psychometric limitations of the difficulties in emotion regulation scale through item modification. *Journal of Personality Assessment*, *98*(3), 298–309. https://doi.org/10.1080/00223891.2015.1091774

Bardeen, J. R., Fergus, T. A., & Orcutt, H. K. (2012). An examination of the latent structure of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment*, *34*(3), 382–392. https://doi.org/10.1007/s10862-012-9280-y

Beauducel, A., & Herzberg, P. Y. (2006). On the performance of maximum likelihood versus means and variance adjusted weighted least squares estimation in CFA. *Structural Equation Modeling*, *13*(2), 186–203. https://doi.org/10.1207/s15328007sem1302_2

Benfer, N., Bardeen, J. R., Fergus, T. A., & Rogers, T. A. (2018). Factor structure and incremental validity of the original and modified versions of the difficulties in emotion regulation scale. *Journal of Personality Assessment*, *101*(6), 1–11. https://doi.org/10.1080/00223891.2018.1492927

Beutler, L. E., & Moleiro, C. (2001). Clinical versus reliable and significant change. *Clinical Psychology: Science and Practice*, *8*(4), 441–445. https://doi.org/10.1093/clipsy.8.4.441

Bjureberg, J., Ljótsson, B., Tull, M., Hedman, E., Sahlin, H., Lundh, L.-G., … Gratz, K. (2016). Development and validation of a brief version of the difficulties in emotion regulation scale: The DERS-16. *Journal of Psychopathology and Behavioral Assessment*, *38*(2), 284–296. https://doi.org/10.1007/s10862-015-9514-x

Blake, D. D., Weathers, F. W., Nagy, L. M., Kaloupek, D. G., Charney, D. S., & Keane, T. M. (1998). Clinician-administered PTSD scale for DSM-IV. Boston: National center for Posttraumatic Stress Disorder.

Brown, T. A. (2006). *Confirmatory factor analysis for applied research*. New York, NY: The Guilford Press.

Campbell, D. G., Felker, B. L., Liu, C.-F., Yano, E. M., Kirchner, J. E., Chan, D., … Chaney, E. F. (2007). Prevalence of depression–PTSD comorbidity: Implications for clinical practice guidelines and primary care-based interventions. *Journal of General Internal Medicine*, *22*(6), 711–718. https://doi.org/10.1007/s11606-006-0101-4

Catanzaro, S. J., & Mearns, J. (1990). Measuring generalized expectancies for negative mood regulation: Initial scale development and implications. *Journal of Personality Assessment*, *54*(3/4), 546–563. https://doi.org/10.1080/00223891.1990.9674019

Chapman, P. L., & Mullis, R. L. (2000). Racial differences in adolescent coping and self-esteem. *The Journal of Genetic Psychology*, *161*(2), 152–160. https://doi.org/10.1080/00221320009596702

Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling: A Multidisciplinary Journal*, *9*(2), 233–255. https://doi.org/10.1207/S15328007SEM0902_5

Cloitre, M., Khan, C., Mackintosh, M., Garvert, D. W., Henn-Haase, C., Falvey, E. C., & Saito, J. (2019). Emotion regulation mediates the relationship between ACES and physical and mental health. *Psychological Trauma: Theory, Research, Practice, and Policy*, *11*(1), 82–89. https://doi.org/10.1037/tra0000374

Cortez, V. L., & Bugental, D. B. (1994). Children's visual avoidance of threat: A strategy associated with low social control. *Merrill-Palmer Quarterly*, *40*(1), 82–97. https://www.jstor.org/stable/23087909

Coutinho, J., Ribeiro, E., Ferreirinha, R., & Dias, P. (2010). The Portuguese version of the difficulties in emotion regulation scale and its relationship with psychopathological symptoms. *Archives of Clinical Psychiatry (São Paulo)*, *37*(4), 145–151. https://doi.org/10.1590/S0101-60832010000400001

Cuijpers, P., Berking, M., Andersson, G., Quigley, L., Kleiboer, A., & Dobson, K. S. (2013). A meta-analysis of cognitive-behavioural therapy for adult depression, alone and in comparison with other treatments. *The Canadian Journal of Psychiatry*, *58*(7), 376–385.

Curran, P. J., Bollen, K. A., Chen, F., Paxton, P., & Kirby, J. B. (2003). Finite sampling properties of the point estimates and confidence intervals of the RMSEA. *Sociological Methods & Research*, *32*(2), 208–252. https://doi.org/10.1177/0049124103256130

DiStefano, C., Liu, J., Jiang, N., & Shi, D. (2018). Examination of the weighted root mean square residual: Evidence for trustworthiness? *Structural Equation Modeling*, *25*(3), 453–466. https://doi.org/10.1080/10705511.2017.1390394

Ford, B. Q., & Mauss, I. B. (2015). Culture and emotion regulation. *Current Opinion in Psychology*, *3*, 1–5. https://doi.org/10.1016/j.copsyc.2014.12.004

Fowler, J. C., Charak, R., Elhai, J. D., Allen, J. G., Frueh, B. C., & Oldham, J. M. (2014). Construct validity and factor structure of the difficulties in emotion regulation scale among adults with severe mental illness. *Journal of Psychiatric Research*, *58*, 175–180. https://doi.org/10.1016/j.jpsychires.2014.07.029

Gillespie, C. F., Bradley, B., Mercer, K., Smith, A. K., Conneely, K., Gapen, M., … Ressler, K. J. (2009). Trauma exposure and stress-related disorders in inner city primary care patients. *General Hospital Psychiatry*, *31*(6), 505–514. https://doi.org/10.1016/j.genhosppsych.2009.05.003

Graham, J. R., Calloway, A., & Roemer, L. (2015). The buffering effects of emotion regulation in the relationship between experiences of racism and anxiety in a Black American sample. *Cognitive Therapy and Research*, *39*(5), 553–563. https://doi.org/10.1007/s10608-015-9682-8

Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment*, *26*(1), 41–54. https://doi.org/10.1023/B:JOBA.0000007455.08539.94

Gratz, K. L., & Tull, M. T. (2010). Emotion regulation as a mechanism of change in acceptance- and mindfulness-based treatments. In Pennebaker, R. A. ed., *Assessing mindfulness and acceptance processes in clients: Illuminating the theory and practice of change* (pp. 107–133). Oakland, CA: Context Press/New Harbinger Publications.

Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, *85*(2), 348–362. https://doi.org/10.1037/0022-3514.85.2.348

Gross, J. J., & Muñoz, R. F. (1995). Emotion regulation and mental health. *Clinical Psychology: Science and Practice*, *2*(2), 151–164. https://doi.org/10.1111/j.1468-2850.1995.tb00036.x

Guzmán-González, M., Trabucco, C., Urzúa, M., Garrido, A., L., & Leiva, J. (2014). Validity and reliability of the adapted Spanish version of the difficulties in emotion regulation scale in Chilean population. *Terapia Psicológica*, *32*(1), 19–29. https://doi.org/10.4067/S0718-48082014000100002

Hallion, L. S., Steinman, S. A., Tolin, D. F., & Diefenbach, G. J. (2018). Psychometric properties of the difficulties in emotion regulation scale (DERS) and its short forms in adults with emotional disorders. *Frontiers in Psychology*, 9. https://doi.org/10.3389/fpsyg.2018.00539

Harrington, E. F., Crowther, J. H., & Shipherd, J. C. (2010). Trauma, binge eating, and the "strong Black woman". *Journal of Consulting and Clinical Psychology*, *78*(4), 469–479. https://doi.org/10.1037/a0019174

Hervás, G., & Rafael., R. (2008). Adaptación al castellano de la Escala de Dificultades en la Regulación Emocional. *Clínica y Salud*, *19*(2), 139.

Howell, J. F., & Games, P. A. (1974). The effects of variance heterogeneity on simultaneous multiple-comparison procedures with equal sample size. *British Journal of Mathematical and Statistical Psychology*, *27*(1), 72–81.

Hu, L., & Bentler, P. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*(1), 1–55.

IBM SPSS Statistics for Mac, Version 26. (2017).

James, S. A. (1994). John Henryism and the health of African-Americans. *Culture, Medicine and Psychiatry*, *18*(2), 163–182. https://doi.org/10.1007/bf01379448

Jacobson, N. S., & Truax, P. (1991). Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology*, *59*(1), 12–19. https://doi.org/10.1037//0022-006x.59.1.12

Jerud, A. B., Pruitt, L. D., Zoellner, L. A., & Feeny, N. C. (2016). The effects of prolonged exposure and sertraline on emotion regulation in individuals with posttraumatic stress disorder. *Behaviour Research and Therapy*, *77*, 62–67. https://doi.org/10.1016/j.brat.2015.12.002

Johnson, D. M., Zlotnick, C., & Zimmerman, M. (2003). The clinical relevance of a partial remission specifier for posttraumatic stress disorder. *Journal of Traumatic Stress*, *16*(5), 515–518. https://doi.org/10.1023/A:1025770814096

Kaufman, E., Xia, M., Fosco, G., Yaptangco, M., Skidmore, C., & Crowell, S. (2016). The difficulties in emotion regulation scale short form (DERS-SF): Validation and replication in adolescent and adult samples. *Journal of Psychopathology & Behavioral Assessment*, *38*(3), 443–455. https://doi.org/10.1007/s10862-015-9529-3

Kazdin, A. E. (1999). The meanings and measurement of clinical significance. *Journal of Consulting and Clinical Psychology*, *67*(3), 332–339. https://doi.org/10.1037/0022-006X.67.3.332

Kearney, D. J., McDermott, K., Malte, C., Martinez, M., & Simpson, T. L. (2012). Association of participation in a mindfulness program with measures of PTSD, depression and quality of life in a veteran sample. *Journal of Clinical Psychology*, *68*(1), 101–116. https://doi.org/10.1002/jclp.20853

Kendall, P. C., Marrs-Garcia, A., Nath, S. R., & Sheldrick, R. C. (1999). Normative comparisons for the evaluation of clinical significance. *Journal of Consulting and Clinical Psychology*, *67*(3), 285–299. https://doi.org/10.1037//0022-006x.67.3.285

King, A. P., Erickson, T. M., Giardino, N. D., Favorite, T., Rauch, S. A. M., Robinson, E., … Liberzon, I. (2013). A pilot study of group mindfulness-based cognitive therapy (MBCT) for combat veterans with posttraumatic stress disorder (PTSD). *Depression and Anxiety*, *30*(7), 638–645. https://doi.org/10.1002/da.22104

Lee, D. J., Witte, T. K., Bardeen, J. R., Davis, M. T., & Weathers, F. W. (2016). A factor analytic evaluation of the difficulties in emotion regulation scale. *Journal of Clinical Psychology*, *72*(9), 933–946. https://doi.org/10.1002/jclp.22297

Li, C.-H. (2016). Confirmatory factor analysis with ordinal data: Comparing robust maximum likelihood and diagonally weighted least squares. *Behavior Research Methods*, *48*(3), 936–949. https://doi.org/10.3758/s13428-015-0619-7

Martin, C. R., & Savage-McGlynn, E. (2013). A 'good practice' guide for the reporting of design and analysis for psychometric evaluation. *Journal of Reproductive & Infant Psychology*, *31*(5), 449–455. https://doi.org/10.1080/02646838.2013.835036

McDermott, M. J., Tull, M. T., Gratz, K. L., Daughters, S. B., & Lejuez, C. W. (2009). The role of anxiety sensitivity and difficulties in emotion regulation in posttraumatic stress disorder among crack/cocaine dependent patients in residential substance abuse treatment. *Journal of Anxiety Disorders*, *23*(5), 591–599. https://doi.org/10.1016/j.janxdis.2009.01.006

McLaughlin, K. A., Hatzenbuehler, M. L., Mennin, D. S., & Nolen-Hoeksema, S. (2011). Emotion dysregulation and adolescent psychopathology: A prospective study. *Behaviour Research and Therapy*, *49*(9), 544–554.

Meehl, P. E. (1999). Clarifications about taxometric method. *Applied and Preventive Psychology*, *8*(3), 165–174. https://doi.org/10.1016/S0962-1849(05)80075-7

Miguel, F. K., Giromini, L., Colombarolli, M. S., Zuanazzi, A. C., & Zennaro, A. (2017). A Brazilian investigation of the 36- and 16-item difficulties in emotion regulation scales. *Journal of Clinical Psychology*, *73*(9), 1146–1159. https://doi.org/10.1002/jclp.22404

Muthén, L. K., & Muthén, B. O. (1998– 2017). Mplus user's guide. Eighth Ed. Los Angeles, CA: Muthén & Muthén.

Neacsiu, A. D., Eberle, J. W., Kramer, R., Wiesmann, T., & Linehan, M. M. (2014). Dialectical behavior therapy skills for transdiagnostic emotion dysregulation: A pilot randomized controlled trial. *Behaviour Research and Therapy*, *59*, 40–51 . https://doi.org/10.1016/j.brat.2014.05.005

Olff, M., Langeland, W., Draijer, N., & Gersons, B. P. (2007). Gender differences in posttraumatic stress disorder. *Psychological Bulletin*, *133*(2), 183–204. https://doi.org/10.1037/0033-2909.133.2.183

Olson, C. L. (1976). On choosing a test statistic in multivariate analysis of variance. *Psychological Bulletin*, *83*(4), 579–586. https://doi.org/10.1037/0033-2909.83.4.579

Osborne, T. L., Michonski, J., Sayrs, J., Welch, S. S., & Anderson, L. K. (2017). Factor structure of the difficulties in emotion regulation scale (DERS) in adult outpatients receiving dialectical behavior therapy (DBT). *Journal of psychopathology and behavioral assessment*, *39*(2), 355–371. https://doi.org/10.1007/s10862-017-9586-x

Paivio, S. C., & Greenberg, L. S. (1998). Experiential theory of emotion applied to anxiety and depression. In W. F. Flack, Jr., & J. D. Laird (Eds.), *Emotions in psychopathology: Theory and research* (pp. 229–242). New York: Oxford University Press.

Pencea, I., Munoz, A. P., Maples-Keller, J. L., Fiorillo, D., Schultebraucks, K., Galatzer-Levy, I., … Powers, A. (2020). Emotion dysregulation is associated with increased prospective risk for chronic PTSD development. *Journal of Psychiatric Research*, *121*, 222–228. https://doi.org/10.1016/j.jpsychires.2019.12.008

Post, L. M., Feeny, N. C., Zoellner, L. A., & Connell, A. M. (2016). Post-traumatic Stress Disorder and depression co-occurrence: Structural relations among disorder constructs and trait and symptom dimensions. *Psychology & Psychotherapy: Theory, Research & Practice*, *89*(4), 418–434. https://doi.org/10.1111/papt.12087

Powers, A., Fani, N., Carter, S., Cross, D., Cloitre, M., & Bradley, B. (2017). Differential predictors of DSM-5 PTSD and ICD-11 complex PTSD among African American women. *European Journal of Psychotraumatology*, *8*(1), 1338914.

Raudales, A. M., Short, N. A., & Schmidt, N. B. (2019). Emotion dysregulation mediates the relationship between trauma type and PTSD symptoms in a diverse trauma-exposed clinical sample. *Personality and Individual Differences*, *139*, 28–33.

Reise, S. P. (2012). The rediscovery of bifactor measurement models. *Multivariate Behavioral Research*, *47*(5), 667–696. https://doi.org/10.1080/00273171.2012.715555

Reise, S. P., Moore, T. M., & Haviland, M. G. (2010). Bifactor models and rotations: Exploring the extent to which multidimensional data yield univocal scale scores. *Journal of Personality Assessment*, *92*(6), 544–559. https://doi.org/10.1080/00223891.2010.496477

Ritschel, L. A., Tone, E. B., Schoemann, A. M., & Lim, N. E. (2015). Psychometric properties of the difficulties in emotion regulation scale across demographic groups. *Psychological Assessment*, *27*(3), 944–954. https://doi.org/10.1037/pas0000099

Salovey, P., Mayer, J. D., Goldman, S. L., Turvey, C., & Palfai, T. P. (1995). Emotional attention, clarity, and repair: Exploring emotional intelligence using the trait meta-mood scale, *Emotion, Disclosure, & Health* (pp. 125–154). Washington, DC: American Psychological Association. https://doi.org/10.1037/10182-006

Sarıtaş-Atalar, D., Gençöz, T., & Özen, A. (2015). Confirmatory factor analyses of the difficulties in emotion regulation scale (DERS) in a Turkish adolescent sample. *European Journal of Psychological Assessment*, *31*(1), 12–19. https://doi.org/10.1027/1015-5759/a000199

Satorra, A., & Bentler, P. M. (1994). Corrections to test statistics and standard errors in covariance structure analysis. In von Eye, A. & Clogg, C. C. eds., *Latent variables analysis:* Applications for developmental research (pp. 399–419). Thousand Oaks, CA: Sage Publications, Inc.

Sheehan, D. V., Lecrubier, Y., Sheehan, K. H., Amorim, P., Janavs, J., Weiller, E., … Dunbar, G. C. (1998). The mini-international neuropsychiatric interview (M.I.N.I): The development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. *The Journal of Clinical Psychiatry*, *59*, 22–33.

Skutch, J. M., Wang, S. B., Buqo, T., Haynos, A. F., & Papa, A. (2019). Which brief is best? Clarifying the use of three brief versions of the Difficulties in Emotion Regulation Scale. *Journal of Psychopathology and Behavioral Assessment*, *41*, 485–494. https://doi.org/10.1007/s10862-019-09736-z

Smith, G. T., & McCarthy, D. M. (1995). Methodological considerations in the refinement of clinical assessment instruments. *Psychological Assessment*, *7*(3), 300–308. https://doi.org/10.1037/1040-3590.7.3.300

Vasilev, C. A., Crowell, S. E., Beauchaine, T. P., Mead, H. K., & Gatzke-Kopp, L. M. (2009). Correspondence between physiological and self-report measures of emotion dysregulation: A longitudinal investigation of youth with and without psychopathology. *Journal of Child Psychology & Psychiatry*, *50*(11), 1357–1364. https://doi.org/10.1111/j.1469-7610.2009.02172.x

Victor, S., & Klonsky, E. (2016). Validation of a Brief Version of the Difficulties in Emotion Regulation Scale (DERS-18) in five samples. *Journal of Psychopathology & Behavioral Assessment*, *38*(4), 582–589. https://doi.org/10.1007/s10862-016-9547-9

Warne, R. T. (2014). A primer on multivariate analysis of variance (MANOVA) for behavioral scientists. *Practical Assessment, Research & Evaluation*, *19*(17), 1–10. https://doi.org/10.7275/sm63-7h70

Watson, N. N., & Hunter, C. D. (2015). Anxiety and depression among African American women: The costs of strength and negative attitudes toward psychological help-seeking. *Cultural Diversity and Ethnic Minority Psychology*, *21*(4), 604–612. https://doi.org/10.1037/cdp0000015

Weathers, F. W., Blake, D. D., Schnurr, P., Kaloupek, D., Marx, B. P., & Keane, T. M. (2013). The clinician-administered PTSD scale for DSM-5 (CAPS-5). Interview available from the National Center for PTSD at www.ptsd.va.gov

Weinberg, A., & Klonsky, E. D. (2009). Measurement of emotion dysregulation in adolescents. *Psychological Assessment*, *21*(4), 616–621. https://doi.org/10.1037/a0016669

Weiss, N. H., Tull, M. T., Davis, L. T., Dehon, E. E., Fulton, J. J., & Gratz, K. L. (2012). Examining the association between emotion regulation difficulties and probable Posttraumatic Stress Disorder within a sample of African Americans. *Cognitive behaviour therapy*, *41*(1), 5–14. https://doi.org/10.1080/16506073.2011.621970

Woods-Giscombé, C. L. (2010). Superwoman schema: African American women's views on stress, strength, and health. *Qualitative Health Research*, *20*(5), 668–683. https://doi.org/10.1177/1049732310361892

How to cite this article: Mekawi Y, Watson-Singleton NN, Dixon HD, Fani N, Michopoulos V, Powers A. Validation of the difficulties with emotion regulation scale in a sample of trauma-exposed Black women. *J. Clin. Psychol.* 2021;77:587–606. https://doi.org/10.1002/jclp.23036