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The Family Resilience Inventory: A Culturally Grounded Measure of Current and Family-of-Origin Protective Processes in Native American Families

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Abstract

The purpose of this article is to introduce the Family Resilience Inventory (FRI) and present findings on initial efforts to validate this measure. The FRI is designed to assess family resilience in one's current family and in one's family of origin, enabling the assessment of family protective factors across these generations. The development of the FRI was the result of many years of ethnographic research with Southeastern Native American tribes; yet, we believe that this scale is applicable to families of various backgrounds. Items for the FRI were derived directly from thematic analysis of qualitative data with 436participants, resulting in two 20-item scales. Due to missing data, eight cases were removed from the 127 participants across two tribes, resulting in an analytic sample size of 119. Conceptually, the FRI is comprised of two factors or scales measuring distinct dimensions of family resilience (i.e., resilience in one's current family and resilience in one's family of origin). The results of the confirmatory factor analysis supported the hypothesized two-factor structure ($X^2(644) = 814.14$, $p = .03$, $X^2/df = 1.10$, RMSEA = .03, CFI = .97, TLI = .96). Both the subscales and the total FRI scale ($\alpha = .92$) demonstrated excellent reliability. The results also provided preliminary evidence of convergent and discriminant validity. This measure fills a gap in the absence of community-based, culturally grounded, and empirical measures of family resilience. The examination of family resilience, which may occur across generations, is an exciting new contribution of the FRI.

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SUPPORTING INFORMATION

Additional Supporting Information may be found in the online version of this article:

[1]We use the term "elders" to be culturally congruent with the terminology used by tribal members.

Keywords

Resilience; Indigenous peoples; Native American or American Indian; Family Resilience; Risk and Protective Factors

Resilience can occur across individual, familial, community, and national levels and beyond (Kirmayer, Sehdev, & Isaac, 2009). Families are the bedrock of resilience and support for youth, adults, and communities and often buffer against disparities in health and social conditions that ethnic minorities tend to experience (Burnette, 2018; Burnette & Figley, 2016). Although families tend to be the people to whom many turn for long-term support and assistance, most research on resilience has focused on individual rather than family resilience (Hawley, 2013). Resilience, or the ability of a system (e.g., a family) to adapt well to a significant challenge or adversity that threatens its functioning, viability, or continued development, is believed to profoundly affect the well-being of families and children, communities, and whole societies (Masten, 2018). Yet, most researchers focus on the deficits of populations rather than resilience, particularly minority populations (Stiff-man et al., 2007). Resilience researchers recognize that weathering crises together can strengthen family bonds and commitment. Crises can serve as a wake-up call and a catalyst for the appraisal of core values, stimulating an assessment of lifetime priorities and greater commitment to meaningful relationships, or post-traumatic growth (Ungar, 2016; Walsh, 2013).

Scholars have made influential contributions to the field of family resilience (e.g., Boss, 2013; Hawley & DeHaan, 1996; Masten, 2018; McCubbin, Thompson, & McCubbin, 1996; Ungar, 2008; Walsh, 2016a). Family resilience is defined as “the capacity of the family system to withstand and rebound from adversity, strengthened and more resourceful” (p. 617), with a focus on positive adaptation and positive growth (Walsh, 2016a,b). Research on resilience has been challenged due to its lack of sensitivity to the cultural and social context (Kirmayer et al., 2009). Indeed, a gap in empirically based measures that incorporate culture into definitions of family resilience poses a barrier for greater understanding.

The purpose of this article is to introduce the Family Resilience Inventory (FRI), which assesses family resilience processes both in one’s current family and in one’s family-of-origin, enabling the assessment of patterns of family protective factors and their transmission over time (a theme highly salient for Native American communities [Bergstrom, Cleary, & Peacock, 2003; Wexler, 2014]). The FRI fills a gap in the absence of culturally grounded and empirically based measures of family resilience developed in deep collaboration with Native American community members. Native American notions of resilience involve holistic, complex, and interacting relationships (Burnette & Figley, 2017; Kirmayer et al., 2009). The historical rootedness to place—connected with traditional lands, communities, and the environment—along with the profound context of historical oppression and the associated social and community ramifications warrant a separate look at culturally relevant resilience for Native Americans (Burnette & Figley, 2017; Kirmayer, Dandeneau, Marshall, Phillips, & Williamson, 2011).

Family resilience is part of a broader "Framework of Historical Oppression, Resilience, and Transcendence" (FHORT; Burnette & Figley, 2017), which proposes that historical oppression (i.e., chronic, pervasive, and intergenerational experiences of oppression) has contributed to health disparities, whereas resilience and transcendence continually occur despite experiencing adversities imposed by such oppression (Burnette & Figley, 2017). Historical oppression has included educational discrimination, environmental injustice, land dispossession, forced migration, chronic poverty, and other forms of marginalization that are thought to be intricately connected to the health inequities that persist among Native Americans (Burnette & Figley, 2017; Wexler, 2014). Health disparities are inseparable from the broader disparities in poverty, lower educational attainment, loss, trauma, and unemployment that are disproportionately high among Native Americans (Sarche & Spicer, 2008).

Several adverse events and forms of historical oppression are disproportionately high for Native Americans and are worth noting to provide context. On average, Native Americans die over 5 years sooner than non-Native Americans, with the leading causes of death including cardiovascular disease (CVD), unintentional injuries (often related to violence and substance abuse), diabetes, and cancer diabetes (Indian Health Service, 2018). Intimate partner violence (IPV) among Native women tends to occur at 1.7 the rate as non-Native women (Breiding, Chen, & Black, 2014), whereas child maltreatment tends to occur at 1.5 times the rate of non-Native children (US Department of Health and Human Services, 2013). This violence is linked with the concomitant disparities in substance abuse, post-traumatic stress disorder (PTSD), depression, and suicide (Burnette & Cannon, 2014; Burnette & Figley, 2017; Sarche & Spicer, 2008). Having an educational focus, identification and engagement with one's culture (enculturation), family support, and the transmission of cultural traditions were some protective factors identified by Indigenous women who had experienced violence (Burnette, 2018; Burnette & Hefflinger, 2016).

Conceptualizing Family Resilience

Family resilience is still a relatively recent construct, with scholarly attention shifting from individual resilience to family resilience alongside the growth of family therapy in the late 1980s to early 1990s (Boss, 2013; Hawley & DeHaan, 1996; Masten, 2018; McCubbin et al., 1996; Ungar, 2008; Walsh, 2016a,b). All systems—families, communities, and societies—have inherently protective qualities and resilience may be examined across multiple levels (Masten, 2018), and, potentially, intergenerationally. Although researchers previously conceptualized resilience as a static individual trait or characteristic, more recent approaches to resilience research recognize the importance of cultural and contextual risk, protective, and promotive factors that shape resilience processes at the individual, family, and community levels (Ungar & Liebenberg, 2011; Walsh, 2013). Risk factors are those that give rise to, exacerbate, or compound challenges and adversities (Masten, 2018). Protective factors are thought to be buffering effects in the presence of adversity, whereas promotive factors are family assets and resources, regardless of the level of risk (Masten, 2018). The concept of family resilience not only acknowledges the protective role that family plays in individual resilience processes but also recognizes the interrelatedness of family members,

constituting a family system that collectively navigates toward and negotiates for resources that promote family well-being (Masten & Monn, 2015; Ungar, 2016).

Given the primacy of family to all social, physical, and psychological aspects of well-being, the lack of family resilience measures is surprising. Moreover, cultural components are seldom explicitly included in resilience frameworks, despite culture being the lens through which meaning and traditions tend to be transmitted through families (Burnette, 2018). As the context for resilience research may have culturally specific aspects (Ungar, 2010), we limit the scope of this article to the measures of family resilience developed within the United States (U.S.), where the focal research was conducted. Although an extensive history of family resilience is beyond the scope of this article and has been detailed elsewhere (Figley & Burnette, 2017), we briefly provide an overview of existing relevant scales before describing the development and validation of the FRI.

Empirical Measurement of Family Resilience

Among the foremost scholars in family resilience research are Froma Walsh and Ham McCubbin and colleagues (McCubbin et al., 1996; Walsh, 2013), whose theoretical frameworks informed this article and are described in the most detail. A primary line of family resilience research also has roots in Reuben Hill's ABCX Family Crisis Model (Hill, 1949). Hill's (1949) model focused on families' coping and adaption to the separation and reunion of wartime. Based on the Resiliency Model of Family Adjustment and Adaptation, the most recent framework for family resilience derived from the ABCX model is the Relational and Resilience Theory of Ethnic Family Systems (McCubbin & McCubbin, 2013). Emerging from the McCubbins' experiences with ethnic minorities in the U.S. (specifically in Hawaii), Western and Eastern Europe, the Middle East, New Zealand, and Asia, this theory is designed to overcome the limitations of the Western nuclear family perspective (McCubbin & McCubbin, 2013). This theory is applicable to all families yet highlights the value of Native American theories and concepts in explaining variability in family systems along with their resilience (L. D. McCubbin & McCubbin, 2013). The three core elements of this theory include: (1) family schema (meaning, beliefs, and values), (2) family patterns of functioning, and (3) family relational well-being, all of which interact with the core processes of adjustment, crisis transition, and adaptation (McCubbin, McCubbin, Zhang, Kehl, & Strom, 2013).

McCubbin and colleagues developed numerous measures of the concepts in the Relational and Resilience Theory of Ethnic Family Systems and these constitute important contributions to the field (McCubbin et al., 2013). One of these measures, the Relational Well-Being measure (RWB-II), was developed and tested with Native Hawaiians and is composed of six factors: resilience, community involvement, financial stability, cultural practice, family commitment, and health care (McCubbin et al., 2013). Although the RWB-II is a culturally specific instrument that includes family dimensions, it is designed to measure individual resilience as a relational construct, rather than the resilience of a family system. Moving beyond individual resilience, a measure of family resilience, the Family Resilience Scale, was developed in Romania (Panoi & Turliuc, 2016). However, to our

knowledge, a short and culturally grounded measure of family resilience developed with populations in the U.S. has yet to be introduced.

Walsh has been an instrumental advocate of the family resilience framework and developed a conceptual model of family resilience to guide clinicians in intervention and prevention efforts with families facing adversity (Walsh, 2016a,b). According to Walsh, a single model of family resilience is impossible, given the flexibility of the construct, as resilience is thought to be a dynamic, multisystemic, and ever-changing process, and contingent on family composition, goals, and resources (Walsh, 2016a,b). Walsh's evidence-based conceptual map consists of the following three overarching constructs and nine subconstructs: (1) belief systems (making meaning of adversity, positive outlook, and transcendence and spirituality), (2) organizational patterns (flexibility, connectedness, social and economic resources), and (3) communication/problem-solving (clarity, open emotional expression, and collaborative problem-solving) (Walsh, 2016a,b).

A few studies of family resilience have focused on ethnically diverse families facing persistent conditions of racism and multistress environmental disparities that may have relevance for other families living in high-risk social environments (Gorman-Smith, Tolan, & Henry, 2000; Tolan, Gorman-Smith, Huesmann, & Zelli, 1997). Although these studies do not examine culturally specific risk and protective factors, they highlight the importance of developing measures with participants from ethnically diverse families.

Gaps in Extant Frameworks and Measures

Scholars have noted the salience of family resilience in collectivist and family-oriented cultures (Chang, Neo, & Fung, 2015; Faqurudheen, Mathew, & Kumar, 2014; Theron et al., 2011; Theron & Theron, 2013; Ungar, 2010). Family is an especially important cornerstone for ethnic minority families who may feel pushed to the margins, in contrast to the privileges afforded to European American families; Native American family members may be more likely to receive poorer or inconsistent care—or lack access to care in the formal service systems altogether (e.g., therapeutic, social services, school-based services) (Burnette, 2015, 2018). With the unreliability of formal support structures, family tends to make up the majority of social support and acts as a conduit for culture among Native Americans (Burnette, 2018; Carlton et al., 2006; Kirmayer et al., 2011; McCubbin & McCubbin, 2013; Stiffman et al., 2007; Weaver & White, 1997). Although much attention has focused on how negative family patterns are transmitted across generations (Felitti et al., 1998), less apparent in the literature is how promotive and protective factors may compare across family-of-origin and current families—the focus of this inquiry. Unless we understand whether and how family resilience may transcend individual generations, the pathways to promote protective patterns will remain hidden. To date, no universal measurement tool has been developed and promoted to assist researchers in building the evidence base for family resilience.

Despite the value of the aforementioned scales, there is a need to identify protective factors that are observable in real-world contexts and compare them with extant theories, ensuring research is translational and culturally relevant. Although many researchers have explored

families' pathways to resilience through qualitative analyses, an empirical measure would provide scholars and clinicians with new and more efficient ways of assessing family resilience. There are currently no known measures of family resilience developed through in-depth inquiry with ethnic minorities assessing family-of-origin and current components of family resilience in a brief and effective manner. We explain the development of one such measure—the Family Resilience Inventory (FRI). This measure was developed over many years of in-depth ethnographic research with Native Americans and has applicability to a variety of family systems.

DEVELOPMENT OF THE FAMILY RESILIENCE INVENTORY

Research Design and Setting

The FRI is a result of 8 years of ethnographic research with Southeastern Native American tribes. The FRI was developed from a larger study with a convergent mixed-methods design (Creswell, 2015). The larger study and its methodology have been described elsewhere (see Burnette & Figley, 2017). In the larger study, an in-depth, critical ethnographic approach was used to uncover the essential risk and protective factors related to intimate partner violence and health disparities. A critical ethnographic inquiry incorporates critical theory in its investigation by attending to power relationships among dominant and marginalized groups (Carspecken, 1996).

To enable the emergence of commonalities and differences across Native American populations, two tribes were included in the study. IRB approval was gained from Tulane University prior to data collection. In addition, each tribe gave approval to conduct research within their respective communities. For the protection of the community identities, the names of these tribes are kept confidential. Both tribes are located in the Southeastern U.S. and have enrolled tribal populations of over 10,000 members. Tribe A is federally recognized and located farther inland from the Gulf of Mexico. It has experienced significant economic development, with its own schools, health care and medical services, police, fire, land management, and health and human services facilities. Tribe B is state recognized and located in proximity to water and the Gulf Coast. Tribe B has fewer economic resources and the absence of federal recognition has undermined its ability to provide tribal infrastructure for its members. Tribe B offers employment, educational, and other individual programs for youth and tribal members.

Qualitative Data Collection

The FRI contains family protective and promotive factors identified through an in-depth ethnography with 436 participants across two Southeastern tribes in the form of focus groups, family interviews, and individually focused interviews (228 participants were from Tribe A and 208 participants were from Tribe B). Participants also included professionals who worked with Native American elders, adults, and youth. In total, the participants included 70 professionals, 105 elders[1] (aged 55 and above), 147 adults (ages 24–54), and 114 youth (ages 11–23). A total of 254 participants completed individually focused interviews, 217 participated in one of the 27 focus groups, and 163 participants completed one of the 64 family interviews. Some people participated in more than one type of data

collection method, which added to study rigor (Carspecken, 1996). On average, individual interviews lasted 64 minutes, family interviews lasted approximately 70 minutes, and focus groups lasted approximately 57 minutes. Taking into account that some participants were involved in more than one type of data collection, the average length of a single person's interview time was 89 minutes.

Recruitment efforts included posting information on Facebook, tribal websites, and newsletters and posting fliers in tribal agencies. Word of mouth was also a primary method of recruitment. Participants received a $20 gift card to a local department store for their participation in an individual interview or a focus group. Families received a $60 gift card for each family interview. Focus groups and interviews followed a semistructured guide and those that were individually focused were conducted as life history interviews. Interview questions focused on constructs of resilience theory, such as Walsh's (2016a,b) constructs of belief systems, organizational patterns, and communication/problem-solving. Walsh's specific theoretical construct(s) for each question are indicated in parentheses. Questions included, "In thinking about strong families, how does the family respond to stress?" (collaborative problem-solving); "What things have you noticed about families that are doing really well versus families that are struggling, having a hard time, or barely getting by?" (organizational patterns); "How do they differ in their reactions to stress, such as family violence or a death in the family?" (belief systems/making meaning out of adversity); "How do strong families tend to talk to each other?" (communication/open emotional expression); "What things do they do together on a regular basis?" (organizational patterns); "How do they handle emotions and feelings?" (open emotional expression); "How do these processes differ from struggling families?" (organizational patterns); "At the family level, what do you think helps people recover more quickly from challenges, such as alcohol use, family violence, trauma, and depression?" (problem-solving). Professionals had the opportunity to choose whether they wanted to participate in the life history portion of the interviews. A copy of the life history interview was offered to participants to keep for themselves and/or their family. As youth also participated in interviews, wording was aimed for comprehension at the fifth-grade reading level.

Qualitative Data Analysis

Thematic qualitative data analysis (termed reconstructive analysis in this specific method) was used for all qualitative data collected in this critical ethnography. This process included an initial meaning construction, which proceeded as follows: (1) the primary record was read and listened to 2–4 times to understand the meaning holistically, (2) potential meanings were noted with low-level coding, from which a hierarchical scheme of codes and subcodes were created, and (3) sections were purposively selected for in-depth reconstructive analysis. This involved identifying explicit and implicit meaning of data (see Burnette, 2013, for an in-depth description of pragmatic horizon analysis).

Due to the breadth of data collected for this ethnography, a collaborative team-based qualitative data analysis method was utilized (Guest & MacQueen, 2008). Interviews were professionally transcribed and transferred to two separate NVivo files (QSR International Pty Ltd., 2015)—one for Tribe A and one for Tribe B. The data analysis team was composed

of four PhD students, two of whom were Native American and two of whom were non-Native American. The tribal PhD students each came from the tribal backgrounds represented in the study, with one having resided on Tribe A's reservation and the other being a member of Tribe B. Through biweekly meetings, the first author developed coding schemes in consultation with team members and all team members approved coding schemes for cultural appropriateness. Cohen's Kappa coefficients were calculated with each team member in NVivo to ensure interrater reliability (McHugh, 2012). The majority of statistics showed high Kappa coefficients (.90 or above). Qualitative themes were compared across tribes, identifying universal and context-specific themes. The items for this scale were created based on the most salient and frequently coded themes identified across tribes (see Figure S1 for the FRI in supplementary materials). Such themes were compared with items and concepts in existing family resilience scales or theoretical concepts, such as the Social Support Index and other works by McCubbin and colleagues (McCubbin et al., 1996; McCubbin et al., 2013), the Family Resilience Scale (Panoi & Turliuc, 2016), and Walsh's framework (Walsh, 2016a,b); however, a short concise scale capturing culturally relevant constructs could not be identified. This absence precipitated the creation of the FRI to capture culturally relevant concepts that are true to the data. For example, items on the scale included "We pass down cultural traditions" and "We are close knit." This latter item was worded in the direct language of tribal participants and is a common theme among tribal participants.

The FRI is a 40-item self-report scale comprised of two separate 20-item subscales. The first subscale includes dichotomous items measuring the presence of processes contributing to resilience in a respondent's family while growing up. The second subscale includes the same set of 20 items but asks about resilience in a respondent's current family. Appendix S1 in the supplementary materials identifies each item and supporting quotes from the raw data that informed the item, along with extant research with Native Americans that supports the inclusion of items as protective and promotive factors.

Rigor—Member checks were conducted with participants and included a descriptive summary of the results along with interview transcripts, with the exception of group interview transcripts to protect participant confidentiality. No participants disagreed with any interpretations of data. Results were disseminated to tribal members in the form of tribal council meetings, community agencies, community dialogue groups, and training sessions across tribal communities on more than 10 occasions. Weekly peer debriefing and consistency checks were completed by the first author throughout the interviews as she encouraged participants' explanations of their thoughts and perceptions. In total, 72 members of Tribe A were interviewed 2–3 times (31.6%) and 50 members of Tribe B were interviewed 2–3 times (24%).

Quantitative Data Collection

After the items on the FRI and all survey items were reviewed by cultural insiders from each tribe and piloted with several people, respondents in the qualitative portion of the study were invited to participate in an anonymous follow-up survey. The follow-up survey included the FRI along with other standardized measures and study-specific items. The purpose of the

follow-up survey was to examine the associations between risk and protective/promotive factors related to key areas of behavioral health and resilience.

To compensate people for their time, participants were entered into a drawing for $50 gift cards and approximately one in two (*n* = 70, 55%) participants received a gift card. Participants had the option to complete the survey in three ways: (1) use a computer and connect to an online survey that was developed using Qualtrics software (Qualtrics, 2014); (2) complete the survey by a hard copy (i.e., have it mailed to the participant and returned in a self-addressed envelope); or (3) have the survey read over the phone while a research team member recorded the participant's answers. Participants selected each of these available data collection methods.

A total of 127 participants from both tribes completed the follow-up survey. Participant names were only supplied for participant compensation and kept separately from the survey data. This survey was open to any Tribe A and Tribe B member over the age of 18 who had participated in the qualitative data collection. A total of 161 participants began the survey and 79% completed the survey (*n* = 127). The sample of 127 included 80 members of Tribe A and 47 members of Tribe B. Table S1, which can be found in the supplementary materials, displays survey participant demographics. Approximately 83% of both male and female participants reported being parents.

ANALYSIS OF THE PSYCHOMETRIC CHARACTERISTICS OF THE FRI

Using information from the surveys with complete data on all measures, a preliminary examination of the psychometric characteristics of the FRI was performed. Eight cases with missing data on all FRI items were deleted, reducing the analytic sample to 119 (93.7%). Conceptually, the FRI was comprised of two scales measuring distinct dimensions of family resilience—resilience in one's current family and resilience in one's family-of-origin. As the FRI was developed to measure two dimensions of resilience that were grounded in the qualitative work that preceded development, we began with a confirmatory factor analysis to test the hypothesized two-factor structure (family resilience in one's current vs. one's family growing up). Specifically, a confirmatory factor analysis using weighted least squares estimation was used to examine scale dimensionality and Cronbach's alpha was calculated to measure internal consistency reliability. We further performed initial analyses of convergent and discriminant validity of the FRI using a series of bivariate correlations. All analyses were performed using SPSS version 23 and Mplus version 7 software (MPLUS 2012; IBM, 2017). Prior to performing the analyses, all data were screened for the presence of missing data, outliers, and to ensure the assumptions underlying the statistical analyses were met. All other assumptions were sufficiently met.

Dimensionality and Reliability

The results of the CFA, overall, supported the hypothesized two-factor structure ($X^2(739) = 814.14$, $p = .03$, $X^2/df = 1.10$, RMSEA = .03, CFI = .97, TLI = .96; WRMR = .99). Four of five fit indices showed good model fit (Hu & Bentler, 1999). A summary of item correlations with each factor is presented in Appendix S2. The aforementioned culturally focused items were highly correlated with each factor (see Appendix S2), and all items are culturally

relevant in that they were derived directly from inductive themes based on participants' words. Items measuring resilience in one's current family most strongly loaded on Factor 1 (factor loadings = .11–97) and items measuring resilience in one's family-of-origin loaded most strongly on Factor 2 (factor loadings = .45–.95). Evidence of good separation between factors was demonstrated by item loadings (i.e., items clearly loaded on one factor vs. the other). One item ("In my current family, education is valued") fell below the minimum recommended criteria of .35 (Costello & Osborne, 2005) with a loading of .11 on Factor 1. However, the parallel form of this item ("In my family growing up, education was valued") exceeded the criteria with a loading of .45 on Factor 2. As the FRI scales are designed to be used separately or in conjunction to obtain a global measure of family resilience, if an item is removed from one scale, the parallel item should also be removed from the other scale in order to maintain balance. Rerunning the model after removing the education item from each subscale did not improve model fit ($X^2(644) = 740.20$, $p = .02$, $X^2/df = 1.14$, RMSEA = .03, CFI = .96, TLI = .96, WRMR = .99). Tribal members of the research team were consulted on the substantive contribution of the education item. In their view, with agreement from other members of the research team, the education item reflected an important aspect of family resilience that should be retained until further analyses using a larger sample can be conducted to determine whether these results are replicated. Both subscales, *resilience in my current family* ($\alpha = .89$, $M = 18.03$, $SD = 3.22$) and *resilience in my family growing up* ($\alpha = .91$, $M = 13.51$, $SD = 4.35$), and the total FRI scale ($\alpha = .92$, $M = 28.67$, $SD = 6.18$), demonstrated excellent reliability. Interitem correlations for each subscale are presented in Appendix S3.

Convergent and Discriminant Validity

Bivariate correlations between the total FRI scale and four validated measures were calculated to examine preliminary evidence of construct validity. The Social Support Index (H. I. McCubbin et al., 1996), a 25-item theoretically similar measure of family and community support (e.g., "I feel good about myself when I sacrifice and give time and energy to members of my family"; "Members of my family seldom listen to my problems or concerns"; and "The members of my family make an effort to show their love and affection for me") and the Resilience Research Centre Adult Resilience Measure (RRC-ARM; Ungar & Liebenberg, 2013), a measure of resiliency in adults [e.g., "I have people I can respect in my life"; "Getting and improving qualifications or skills is important to me"; and "I can solve problems without harming myself or others (e.g., without using drugs or being violent")], were used to examine convergent validity. The Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992), a 6-item theoretically dissimilar measure of ethnic identity (e.g., "I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs"; "I have a strong sense of belonging to my own ethnic group"; and "I feel a strong attachment towards my own ethnic group"), and the Spiritual Health and Life-Orientation Measure (SHALOM; Fisher, 2010), a 20-item scale assessing to what extent the following reflects the personal experiences of respondents most of the time (e.g., "Developing a love of other people"; "Developing a personal relationship with the divine/God"; and "Developing forgiveness toward others"), were used to examine discriminant validity. We hypothesized that the SSI and RRC-ARM scores would be highly correlated with the FRI and the MEIM and SHALOM scores would have a weak correlation

with the FRI. The bivariate correlations are presented in Table S2, which is found in the supplementary materials. Consistent with our predictions, we found statistically significant, moderately strong correlations between the scores on the SSI, RRC-ARM, and the FRI total and subscale scores. Neither the MEIM nor SHALOM were correlated with the total FRI scale or the subscales. Overall, the results provide initial evidence of convergent and discriminant validity.

DISCUSSION

Despite the nearly universal support for the importance of families in promoting resilience, the availability of culturally grounded and empirically based measures of family resilience are lacking. Although researchers need to further validate and test this scale with other Native American and ethnic minority populations, we believe that the FRI has broad applicability across populations. This scale was designed to assess protective and promotive family processes, such as expressing love and affection, spending time together, working together, passing down cultural traditions, and meeting regularly for celebrations and meals. The passing down of cultural traditions tends to promote quality family time and knowledge of prosocial cultural traditions (Burnette, 2018). Ethnic identity is critical for positive mental health, and although Native Americans experience historical oppression, they continue to transmit knowledge, traditions, values, and language to the next generation (King, Smith, & Gracey, 2009). This transmission enables the ability of youth to translate culture onto the contemporary social environment (Kirmayer et al., 2011) and provides psychological guidance on how to navigate oppressive policies and living conditions, which is thought to foster resilience among Native Americans (Wexler, 2014).

Many tenets of Native American families may be more prominent than other families, such as being “close knit,” sharing traditions, humor and laughter, and sharing meals and celebrations, along with respect for elders and all family members (Weaver & White, 1997). The importance of passing down cultural traditions has been a recurrent theme in resilience research with Native American populations, as it promotes the protective factor of enculturation and ethnic identity, enhances family unity and communication, and provides culturally specific ways to respond to the world in contextually distinct behaviors (Burnette, 2018; Kirmayer et al., 2011; Wexler, 2014). This dynamic approach to the systemic processes of resilience is in line with recommendations made by prominent resilience scholars (L. D. McCubbin & McCubbin, 2013; Walsh, 2016a,b). Using the FRI and other strength-based measures will help shift the focus of interventions and research topics from deficits (Stiffman et al., 2007) to resilience, through the exploration of protective and promotive processes within the family system. The present study generated data to construct a measure of family resilience, the FRI. To our knowledge, this is the first such measure based on data derived from an intensive research program focusing on the resilience of Native American people and derived from in-depth interviews, focus groups, and participant observation.

Limitations and Future Research

There are limitations within the current study that should be noted. First, these findings should be viewed as a preliminary attempt at validation. Replication with other populations and using other measures of convergent and discriminant validity would be useful additions to this process of scale development. Despite the sound psychometric characteristics of the scale, it was generated through perspectives of members of two tribes. In the future, researchers should assess its utility across more tribal contexts. Interestingly, no significant differences were found in family resilience across the two tribes in this study. The FRI should be used with a larger sample of Native American people from additional tribes in order to further examine its reliability and validity with historically marginalized groups, examining the commonalities and differences across groups. Future researchers can expand the use of this scale with other Native American and potentially other ethnic minority groups, including international populations. Moreover, this preliminary study examined the yes/no response format of the scale and other researchers may do well to test a Likert scale format to assess its utility.

Despite these limitations, we believe the FRI deserves to be considered among the tools available to family resilience investigators. The FRI may be promising for use with populations who have experienced historical oppression and multigenerational trauma, racism, and chronic oppression and marginalization. Its utility, however, is unknown for use related to acute trauma, such as loss of a loved one or natural disasters (Walsh, 2016a,b). As researchers use the FRI with other populations, we hope that they report their findings in order to improve the psychometrics and relevance of this measure in family- and resilience-based research.

Implications

The FRI is not only a tool to measure family resilience. It can document family protective and promotive factors as well as the absence of such factors. Practitioners can utilize items of the scale(s) to identify processes to build upon with families and to understand where protective patterns, or their absence, may have originated. For instance, in families where expectations are ambiguous, a greater understanding of this absence of expectations can be gained from evaluating whether this factor was present in the family of origin. This can provide insight, normalizing the transmission of family patterns across time but also provide an opening to promote protective patterns that can continue cross-generationally (both in family-of-origin and current family). The FRI provides a simple tool to inventory assets and gaps in family functioning. The FRI explicitly includes attention to culture (i.e., “We pass down cultural traditions”) as an asset, building upon the research that continually documents enculturation and engagement with one’s culture as protective against negative mental health outcomes (Burnette, 2018). Moreover, researchers can use this tool to understand key outcomes with populations who experience disparities.

It is our hope that the FRI adds to the science of family resilience, expanding upon the important contributions made thus far. The documentation, exploration, and examination of the family assets, protective, and promotive factors that may occur across generations is an exciting new contribution for which the FRI can be utilized. The FRI may be used for one’s

current family, one's family-of-origin, or both. Thus, it has flexibility to meet the needs of researchers, practitioners, and families. Family resilience is an important concept and area of inquiry that holds much promise for social and psychological scientists and clinicians, and the FRI operationalizes and opens the door for further inquiry into this topic.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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