

Mental health problems among children in Sierra Leone: Assessing cultural concepts of distress

Transcultural Psychiatry

0(0) 1–18

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DOI: 10.1177/1363461520916695

journals.sagepub.com/home/tps



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Abstract

Globally, over 13% of children and adolescents are affected by mental disorders, yet relatively little scholarship addresses how risk factors, symptoms, and nosology vary by culture and context, especially in young children living in post-conflict and low-resource settings. To address this gap, we conducted a qualitative study to identify and describe the most salient mental health problems facing children aged 6 to 10 years in Sierra Leone, as well as the thoughts, feelings, and behaviors related to these problems. Free list interviews ($N = 200$) and semi-structured interviews ($N = 66$) were conducted among caregivers, children, and other relevant key informants to explore risk factors and locally meaningful concepts of distress. Our findings indicate that children are faced with a variety of challenges in their social environments that contribute to distress, including hunger, unmet material needs, and excessive work. Our research identifies five contextually defined mental health problems faced by young children: *gbos gbos* (angry, destructive behavior), *poil at* (sad, disruptive behavior), *diskoraj* (sad, withdrawn), *wondri* (excessive worry), and *fred fred* (abnormal fear). The manifestations of these distress concepts are described in detail and contextualized according to Sierra Leone's history of war and current backdrop of poverty and insecurity. Implications are discussed for locally relevant diagnosis and treatment as well as for the wider literature on global child mental health.

Keywords

child mental health, cultural concepts of distress, idioms of distress, post-conflict, Sierra Leone

Introduction

A recent meta-analysis of the global prevalence of mental disorders affecting children and adolescents identified a pooled prevalence of 13.4%, suggesting that over 241 million youth worldwide may be affected (Polanczyk et al., 2015). The greatest contributors, which include emotional disorders, developmental disabilities, and disruptive behavior disorders (Murray et al., 2012), can have long-term consequences, extending into adolescence and adulthood and negatively affecting individuals, families, and communities at large (Alonso et al., 2013; Patel et al., 2007; Walker et al., 2007). The various causes, manifestations, and local interpretations of child mental health problems remain largely unexplored across diverse settings, despite evidence that risk factors, symptoms, and nosology are highly context-dependent (Atilola, 2014a; Kieling et al., 2011; Walker et al., 2007).

Although considerable distress has been documented among youth in post-conflict African settings (Cortina et al., 2012), culturally relevant systems for categorizing and assessing mental health problems are particularly lacking in this part of the world. International epidemiological studies that attempt to measure pre-determined mental health problems

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based upon Western concepts fail to account for how problematic symptoms or behaviors vary, as do their significance, from one context to another (Kirmayer & Swartz, 2013). For example, we know little about how histories of war or prolonged exposure to abject poverty shape local meanings and embodiments of distress. When existing psychiatric categories do not adequately map onto local ones, what is measured becomes devoid of meaning, a concept referred to as “category fallacy” (Kleinman, 1987; Kohrt et al., 2011). Thus, critical evidence gaps remain in our knowledge of the diagnostic validity of categorizations of child mental disorders in non-Western settings, particularly for emotional and behavioral disorders (Patel et al., 2013). Common diagnostic classifications for children such as the ICD-10 and DSM-5 may be of limited relevance in these or other low-resource settings, as they are grounded in Western conceptualizations of the self and often lack local contextual perspectives (Belfer, 2008; Schwab-Stone et al., 2001).

Frameworks and methods for applying “context-sensitivity” to child mental health research

Contextual factors, including cultural, political and socioeconomic environments, influence explanatory frameworks for mental health problems in children, which in turn influence how distress and impairment are experienced and how symptoms are interpreted in a given society (Bird, 1996; Kirmayer, 2007; Kirmayer & Ramstead, 2017; Kohrt & Hruschka, 2010; Kvasvig et al., 2014). By combining strong empirical methods and theory with “context-sensitivity” (Patel et al., 2013), social science research can aid in identifying and assessing mental health constructs that are locally relevant, ethnographically valid, and comparable to international classification systems. Frameworks such as Bronfenbrenner’s (1979) ecological model of child development are helpful for recognizing that child mental health must be evaluated not just based upon individual characteristics but also wider family, community, and societal settings and exposures over time (Atilola, 2014a, 2014b; Bronfenbrenner, 1995; Bronfenbrenner & Ceci, 1994). This model has been adapted to youth affected by armed conflict to contextualize risk and protective processes relevant to child and adolescent mental health (Betancourt & Kahn, 2008). The “developmental niche” approach (Super & Harkness, 1986, 2002), which suggests that factors such as setting, child rearing strategies, and caregiving ethnotheories impact one another to influence child development, has also proven helpful in understanding confluences of risk for unhealthy child development (Burkey et al., 2016). In addition to identifying risk and protective factors, these frameworks are also

useful for considering how presentation and nosology of child mental health problems vary across diverse contexts.

To improve cross-cultural assessments of mental health, researchers have relied upon ethnographic approaches, including drawing upon local idioms of distress and culture-bound syndromes, adapting and/or culturally validating screening tools, and/or developing new instruments “on the ground” to better understand contextualized expressions of socio-emotional and behavioral distress (Bolton & Tang, 2002; Hinton et al., 2010; Kaiser et al., 2013, 2014; Kohrt et al., 2011; Nichter, 2010; Weaver, 2017; Weaver & Kaiser, 2014). For example, to maximize cultural validity of disruptive behavior disorder measures among children in Nepal, Burkey et al. (2016) conducted free list interviews and extracted items from clinically validated scales based upon local relevance and perceived severity. The framework these authors used to assess item importance was based upon prior ethnographic research that highlighted Nepali caregivers’ socialization goals and role expectations for children, in addition to how adults interpreted and responded to children’s behavior. Other researchers have employed similar means to create and adapt measures of relevant emotional and behavioral problems for youth in sub-Saharan Africa (Betancourt & Bolton, 2005; Betancourt, Rubin-Smith, et al., 2011; Betancourt et al., 2009; Bolton, 2001; Bolton et al., 2007; Ng et al., 2014; Scorza et al., 2013). These studies have been useful in revealing the mental health needs of African youth impacted by various forms of adversity and for informing psychosocial programming related to these needs.

“Emic” understandings of child mental health in settings of violence and insecurity

Ethnographic approaches have yet to be applied to assessments of child mental health disorders in post-conflict Sierra Leone despite identified gaps in diagnosis, treatment, and related social services (Song et al., 2013; Yoder et al., 2016). Few existing studies have focused explicitly on contextualizing child mental health against a backdrop of civil conflict and/or long-term exposure to poverty and insecurity. Exposure to war and the social stressors of living in a post-conflict environment contribute to heightened burdens of mental distress among youth (Betancourt, Brennan, et al., 2010; Kohrt et al., 2008; McKay & Wessells, 2004; Miller et al., 2008; Panter-Brick et al., 2011; Patel et al., 2013; Yoder et al., 2016). Existing studies of youth directly affected by war and post-conflict instability in Sierra Leone have found high rates of internalizing and externalizing behaviors,

including poor emotion regulation and social role functioning (Betancourt, Agnew-Blais, et al., 2010; Betancourt, Brennan, et al., 2010; Betancourt et al., 2012). Risk factors for poor mental health include post-conflict stigma, poverty, unemployment, limited social support, and unstable family structures (Betancourt, Agnew-Blais, et al., 2010). Of relevance to young children in this context, caregiver anxiety and depression have been found to correlate with an increase in child internalizing behaviors (Betancourt, McBain, et al., 2015). One study in Eastern Sierra Leone found high prevalence rates for both depression and post-traumatic stress among children 8–20 years old, with an increased risk for children without adequate parental support (Behrendt, 2008). While these studies are informative of the mental health challenges facing young children in Sierra Leone, they do not incorporate local concepts of distress, instead employing adapted or non-adapted versions of Western measures.

Improved understandings of child mental health problems in low-resource and post-conflict settings, including how they are perceived, explained, and experienced, is important for building an evidence base to guide culturally-relevant intervention and treatment options, and for strengthening mental health systems in such contexts (Kieling et al., 2011; Patel & Kim, 2007). The ways that local mental health problems present and are understood may influence rates of stigmatization, utilization of mental health services, and more general health-seeking behaviors (Asare & Jones, 2005; DHHS, 2001). We aimed to contribute to this literature by identifying and assessing salient mental health problems facing children in Sierra Leone. We did this via a qualitative mixed-methods approach: (1) using a free list exercise to elicit locally relevant terms for communicating distress, and then (2) employing key informant interviews to understand the indicators related to these problems, as related to thoughts, feelings, or behaviors. Our findings have relevance for the development of culturally valid assessments of and treatments for mental health problems in Sierra Leone, as well as for understanding how civil war and post-conflict adversities influence understandings and presentations of childhood mental disorders more broadly.

Background

Since achieving independence in 1961, the West African country of Sierra Leone has faced significant political instability, greatly impeding economic and societal development. Within 30 years of independence, economic decline due to government mismanagement resulted in inflation, rising living costs, and high rates of youth unemployment cumulating in the start of the

civil war in 1991 (Davis, 2002). Raging for 11 years, the civil war resulted in the death of over 70,000 individuals and the displacement of 2.6 million people (over half of the total population) (Kaldor & Vincent, 2006). One of the most egregious features of the civil war was the use of child combatants to commit violent crimes against their own and other communities (Human Rights Watch, 1999). Of the 47,000 combatants disarmed at the end of the civil war, 6,845 were child combatants, 92% of whom were male (Human Rights Watch, 2003). Although many former youth combatants reunited with their families and communities, some youth feared returning home due to their involvement in violent acts during the war (Human Rights Watch, 2003). The extensive unrest and displacement associated with the war further hindered economic growth in the country, leaving behind fragmented communities and a dire need for investment in infrastructure, particularly in the health sector.

Given its history of political instability and a fragile healthcare system, populations in Sierra Leone have been susceptible to numerous widespread infectious disease outbreaks, including the 2012 cholera outbreak that resulted in approximately 23,000 cases (WHO, 2013), followed by the West African Ebola outbreak in late 2013, which resulted in over 14,000 cases (WHO, 2016). During this time, the country's already weak economy came to a virtual standstill, with GDP annual growth plunging by over 40% between 2013 and 2015 (World Bank, 2018). Anthropologists writing about the causes of the epidemic highlight the role of harmful structural adjustment policies instituted in the 1980s by agencies such as the International Monetary Fund (IMF), leading to decreased government spending on health services and limited public sector wages (Benton & Dionne, 2015), and increased reliance on a heavily “vertical” NGO healthcare provision system (Pfeiffer & Chapman, 2010). By 2016 Sierra Leone was ranked 179th out of 187 on the Human Development Index based on life expectancy, access to health and education services, and standard of living, with 77.5% of its population of nearly 7 million living in multidimensional poverty (UNDP, 2016). A study by Betancourt et al. (2016) found that past war trauma and related mental health problems were associated with Ebola-related high risk-behaviors, emphasizing the need for addressing mental health needs among this population.

Exposure to war, post-conflict stressors, and constant instability have impacted rates of mental distress among Sierra Leonean youth and young adults (Betancourt, Agnew-Blais, et al., 2010; Betancourt et al., 2012). Given post-conflict and post-epidemic hardships and interruptions in family and community care networks, family structures have been fractured.

Those in caregiving roles may thus be unable to provide sufficient protection or emotional buffering, which can impede healthy social, emotional, and cognitive development of children. Furthermore, against the backdrop of civil unrest, violence, and displacement, what is considered normal or deviant behavior among young children today may be colored by the traumatic experiences of their caregivers (Song et al., 2014).

In the post-conflict environment, healthcare resources remain scarce and of low quality. This is particularly true for mental health services. Despite high rates of mental distress reported among children in Sierra Leone (Behrendt, 2008), only 0.2% receive biomedical services (Yoder et al., 2016). While low utilization rates may be due in part to cultural or economic factors, historical distrust of state-provided services and past experiences with an ill-functioning healthcare system may also pose barriers to seeking care (Pieterse & Lodge, 2015). In addition to mental health services, research is also lacking in this area. Though several epidemiological studies have assessed youth mental disorders related to the war, at the time of writing we are unaware of any studies that have investigated locally defined concepts of distress in young children. With over 40% of the country's population under the age of 15 years, there is a great need for sound child and adolescent mental health resources and applied social science research to better understand child mental health problems (SSL, 2013).

Methods

This project was a component of a larger prospective longitudinal study of war-affected youth in Sierra Leone (Betancourt, Agnew-Blais, et al., 2010; Betancourt, Brennan, et al., 2010; Betancourt, et al., 2011; Betancourt, et al., 2014; Betancourt, et al., 2015). Data collection occurred between 2013 and 2014 in urban and rural settings across the four districts in Sierra Leone. This study employed a combination of qualitative research methods, using free list interviews to elicit problems facing children, followed by semi-structured interviews with key informants (KIs) to further understand the thoughts, feelings, and behaviors of children experiencing such problems (Betancourt, Borisova, et al., 2011). Free list and KI interviews were conducted by Sierra Leonean, Krio-speaking research assistants with accredited post-baccalaureate training in social work. Research assistants were trained on free list and KI interview techniques by project managers and early childhood development (ECD) experts from the University of Sierra Leone, whose experience included guiding government ECD reform. Interview questions were translated by research assistants into Krio using the World Health Organization

translation guidelines (WHO, 2013). Research assistants worked in pairs, with one person serving as the lead interviewer and the second person taking notes and assisting with additional follow-up inquiry. All interview procedures were approved by the Institutional Review Board at the Harvard T.H. Chan School of Public Health and by the Sierra Leone Ethics and Scientific Review Committee. All adult participants provided informed consent prior to beginning each interview. Primary caregivers of child participants provided verbal consent for their child to participate, and all child participants provided verbal assent.

Sampling and recruitment

Study participants were sampled from rural and urban settings within the districts of Kono, Western Area Urban, and Western Area Rural. Adult participants consisted of community members over the age of 18, both formally and informally employed in various forms of community work (e.g., as social workers, police officers, and farmers). Most adult respondents were also caregivers themselves for one or more children under the age of 15. Adult participants who worked closely with families in their communities referred children aged 6 to 10 years who had either faced a substantial life challenge themselves or who were close to other children who had faced significant challenges. Participants were not paid for their participation, but were given small incentives (<\$1 USD) consisting of a household good such as crockery.

Free list interviews

A total of 200 free list interviews (100 adults; 100 children) were conducted to identify the most pressing challenges that children aged 6 to 10 years face in their communities. Key informant interviews were conducted as individual interviews in a location that was private enough that the respondent felt comfortable to respond. Research assistants were trained to ask adult and child research participants, "what are the problems faced by children [aged 6 to 10] in this community?" and to continue prompting the respondent until the participant had nothing further to add. Research assistants recorded problems identified by respondents (referred to hereafter as "primaries") and then asked participants for detailed descriptions of the primaries given. If other primaries came up during the participant's description of an existing primary, the research assistant would record the term and later ask for an additional description. This process continued until the participant began to repeat responses or stated that they had nothing additional to add.

Free list interview analysis

First, primary terms and associated descriptors were reviewed for conceptually identical responses. Primaries that substantially overlapped in meaning were combined. Once all primaries had been reviewed and sorted, primary terms were tallied by number of reporters to determine highest to lowest ranked problem terms. The identified problems facing children aged 6 to 10 from this free list interview activity are included in Table 1 below.

Sierra Leonean research assistants were trained and overseen by the program manager and senior PI on analyzing the free list interview data using thematic content analysis (Smith, 1992). The team examined the primary terms and identified those that related to emotional, cognitive, or behavioral problems facing children in Sierra Leone. Relevant terms were then grouped into related clusters by theme—again, by local research assistants with advanced training in child development and social work—and the most commonly reported primary or most sensible term according to the research team was selected as the cover term. Findings from this sorting process yielded five distinct cultural concepts of distress with the following cover terms, to be further investigated by key informant interviews: *gbos gbos* (angry, destructive, often violent behaviors), *diskoraj* (withdrawn, sad), *poil at* (sad, disruptive behaviors), *wondri* (persistent worry) and *fred fred* (experiencing severe levels/types of fears). We use the term “cultural concept of distress” in accordance with the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM-5*, American Psychiatric Association, 2013) category that refers to “ways that cultural groups experience, understand, and communicate suffering, behavioral problems, or troubling thoughts and emotions” (p. 758). This terminology recognizes that all types of distress are culturally informed, without implying cultural exclusivity (American Psychiatric Association, 2013; Kohrt et al., 2014). The cover terms that emerged from the free listing exercise were then used as a basis for exploring mental health-related issues via in-depth interviews with key informants.

Key informant interviews

In-depth, semi-structured key informant interviews were conducted with children and adults to further investigate the thoughts, feelings, and behaviors of children exhibiting symptoms indicating the five distress categories. The research team reviewed key information data iteratively throughout data collection. The key informant interview guides were thus adapted by the senior author and research team throughout data

collection, given findings from prior data collection and saturation of data related to the central research questions. Examples of questions include: “Think about a child who is having problems like *gbos gbos* – can you tell us more about a child with problems like these?” followed by questions such as, “What are other ways a child with problems like these might behave?” or “How might a child with problems like these think about themselves and others?” Research assistants were trained on key informant interview techniques, such as seeking clarification and further probing as necessary. Interviews were recorded as audio files and transcribed and translated by fluent Sierra Leonean Krio and English speakers.

Key informant interview analysis

In close collaboration with Sierra Leonean research team members involved with data collection, the first two authors systematically analyzed the data using thematic content analysis to identify thoughts, feelings, and behaviors (hereafter referred to as “indicators”) associated with each of the mental health-related cover terms. Throughout the analysis process, the first two authors (who were in-country at the time of data analysis) frequently consulted with local research team members who had relevant social work training, as well as with two Sierra Leonean clinicians—a psychiatrist and psychologist (also co-authors on this paper). The first two authors sought analytical insight regarding contextual areas that had overlap as well as information on how various indicators related to, and were distinguishable from, one another. Indicators reported by 10% or more of respondents are included in the final list of indicators associated with each cultural concept of distress, as presented in Figure 1 and Tables 2–4. The qualitative tools of the mixed-methods analysis software MAXQDA12 were used for data organization, coding, and reiterative result extraction throughout the analysis process.

Results

Free list interviews

A total of 100 children aged 6 to 10 years (50% male, 77% rural) and 100 adults aged 18 to 49 years (50% male, 82% rural) participated in the free list interview component of the study. Adults and children reported a variety of challenges facing children in their community; basic need provision, hunger, and excessive work were among the top challenges facing children 6 to 10 years old (see Table 1). Examples of items related to mental health problems include *fred fred* (generalized fear), reported by 8% of children, and *trangayes*

Table 1. Continued.

Adult reported (N = 100)		Child reported (N = 100)		
Primary term	Description of term	Reporting (%)	Primary term	Reporting (%)
House	Os The children do not have a comfortable place to sleep	10	Healthcare	10
Rape	Rep When men force children to have sex	10	Embarrassment	10
Hygiene	Klinin Poor hygiene and cleaning practices	9	Sleep	9
Stubborn	Trangaves Stubborn, when children do not obey their caregivers	9	Afraid	8
Many children	Men pikin biznes Families with many children (including foster children) affects ability to train child	9	Maltreatment	7
Playground	Sai fo ple Children do not have enough space to play	9	Water	6
Thief	Tif Children go out to steal, often out of hunger	6	Thief	6
Run away	Strit pikin dem Children run away from home, stay in the street	6	Light	5
Orphan	Pikin way nor ge mama en papa Children do not have caregivers	6	Intimidate	5
Cinema	Sinema Children spend day watching movies and DVDs	6	Money	5
Child labor	Sel pipul pikin Caregivers misuse children, e.g., prostitution, kidnap children for cannibalism	6	Playground	4
Pornography	Pikin de no bot mami en dadi biznes kwik Children get early knowledge about sex, e.g., watching pornography through phones/ cinema	6		
Transport	Transpot Insufficient transportation for children	6		
Bad friends	Padi padi biznes Children are influenced negatively by their friends	6		
Fight	Fet Children fight amongst themselves, e.g., for money	5		

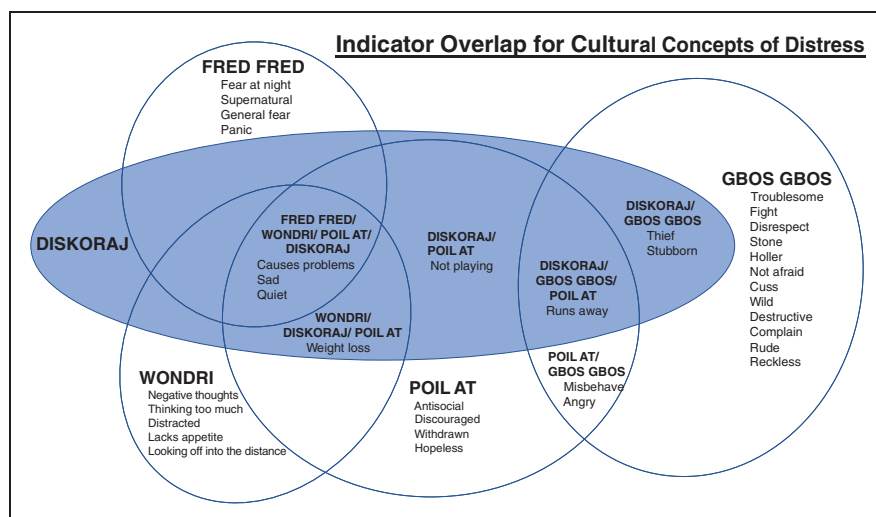


Figure 1. Indicator overlap for cultural concepts of distress.

(someone who does not listen, is disruptive/disobedient), reported by 9% of adults. The final list of distress cover terms of child mental health problems was derived from the free list interview data: *gbos gbos* (angry, destructive, often violent behaviors), *diskoraj* (withdrawn, sad), *poil at* (sad, disruptive behaviors), *wondri* (persistent worry), and *fred fred* (experiencing severe levels/types of fears).

Key informant interviews

Key informant interviews were conducted with 23 children aged 6 to 10 years ($M = 9.3$ years; 61% male, 74% rural) and 43 adults aged 22 to 73 years ($M = 42.5$ years; 61% male, 74% rural). A list of indicators was identified for each of the distress concepts; those indicators reported by 10% or more of our sample are included in our analysis. Ten of 33 total indicators were reported for more than one distress concept (see Figure 1). Three indicators were found to be associated with four distress concepts: *mek problem*, referring to a child who does not listen to or help family members with household chores; *nor gladi*, indicating a child who is unhappy or cries; and *saful*, referring to a child who is quiet and withdrawn. Although overlap between indicators is prevalent, there is great variation of internalizing versus externalizing indicators between concepts, which naturally impacts how the community perceives and interacts with a child exhibiting these conditions. For example, *gbos gbos* has many externalizing, aggressive behavioral indicators and is thus substantially different from *fred fred*, which is characterized by more internalizing, emotional, or thought-related indicators. *Poil at*, *diskoraj*, and

wondri are presented together given the high overlap of indicators across these three distress concepts.

Gbos gbos (anger, destructive behaviour)

The distress concept *gbos gbos* had the largest number of discrete indicators at 17 and the lowest percentage of indicator overlap with other concepts (5 out of 17) (Table 2). According to our findings, children described as being *gbos gbos* tend to show disrespect and demonstrate destructive, violent, or socially divisive behaviors. Participants described *gbos gbos* children as being “without proper training” or as those who “do not [take] caution or control their manners,” are “wild,” and often “get out of hand.” These children often cause “*ala ala*” (verbal arguing, hollering) within the community because they tend to engage in fighting and/or spoil or steal people’s property to cause commotion. They can be considered “wicked” and may use abusive language, cause trouble, and or physically assault their peers. One respondent went so far as to describe a *gbos gbos* child as one who “kills their companions.” Participants reported that indicators of *gbos gbos* were more commonly seen in pre-adolescent boys, though not exclusively. They also expressed that *gbos gbos* children were commonly viewed by their communities with disdain and considered to be a disturbance to the normal functioning of society. This is concerning to community members who view *gbos gbos* children to be wayward, hot-tempered, and unafraid of doing “wrong” within the expectations of social norms.

Adult respondents often attributed poor caregiving and, specifically, a lack of caregiver control over their child, to be the cause of *gbos gbos*-related indicators in children. In several instances, participants mentioned

Table 2. Gbos gbos indicators reported by 10% or more of sample, from most reported to least.

Indicator	Description	Reporting (%)	
Troublesome	<i>Trobulsom</i>	Creates commotion	75
Fight	<i>Fet</i>	Fights with peers	66
Disrespect	<i>Disrespekt</i>	Disrespect towards elders	46
Stone	<i>Ston</i>	Beats peers with stone or other object; stabs others	46
Thief ^b	<i>Tif</i>	Steals; “they become thieves”	32
Holler	<i>Ala</i>	Causes others to yell at them; child always offending others; quarrelsome	30
Not afraid	<i>Nor de fred</i>	Is not afraid to cause disruption	25
Cuss	<i>Kos</i>	Uses abusive language in public	23
Stubborn ^b	<i>Trangayes</i>	Is stubborn and does not listen	23
Wild	<i>Gbana</i>	Wild child; naturally wild	21
Destructive	<i>Pwel pipul den lod</i>	Ruins people’s property	21
Complain	<i>Komplain</i>	Children who always complain	16
Angry	<i>Veks</i>	Hot-tempered; becomes annoyed	16
Misbehaves ^a	<i>Misbiev</i>	Misbehaves; behaves badly when out	16
Runs away ^{a,b}	<i>Go na trit</i>	Goes to the street (leaves home)	16
Rude	<i>Rud</i>	Is rude; badly behaved	14
Reckless	<i>Nor kia</i>	Does not care or mind what he does; behaves recklessly	11

^aindicates overlap with *poil at*. ^bindicates overlap with *diskoraj*.

Table 3. Constructs with significant overlap: *poil at*, *diskoraj*, *wondri* and their indicators, as reported by 10% or more of sample.

Indicator	Description	
Different ^{a,b}	<i>Difren</i>	Feels unimportant or disliked by others; feels undesired by community; feels they are not liked
Runs away ^{a,b}	<i>Go na trit</i>	Leaves home, goes elsewhere; runs away from home; wayward
Quiet ^{a,b,c}	<i>Saful</i>	Sits quietly, even if peers want to play; sits alone; sits quietly; child is isolated
Sad ^{a,b, c}	<i>Nor gladi</i>	They cry; is going to be sad; not happy; always unhappy; their face is not happy
Weight loss ^{a,b,c}	<i>Bodi nor fayn</i>	He/she loses weight; they will not be looking good (the body); the body does not look healthy (looks thin)
Causes problems ^{a,b,c}	<i>Mek problem</i>	Poor attitude at home; does do not do anything pleasing; does not listen; refuses to do work for parents; refuses when sent to do something, refuses parents’ requests
Dull ^{a,b,c}	<i>Dol</i>	The child is dull (lethargic, mentally slow); does not feel lively; always dormant; their movement is slow (listless)
Misbehaves ^a	<i>Misbiev</i>	Joins bad life, drugs, robbery
Antisocial ^a	<i>Kip to insep</i>	Keeps to himself; does not mingle with peers
Discouraged ^a	<i>Diskoraj</i>	The child becomes discouraged (sad/withdrawn)
Withdrawn ^a	<i>Sidom na kona</i>	Sits in the corner
Angry ^a	<i>Veks</i>	Angry; can have temper
Not playing ^{a,c}	<i>Nor wan ple</i>	Does not want to play
Hopeless ^a	<i>Op nor de</i>	They feel like they want to give up; they have no hope
Thief ^b	<i>Tif</i>	If he sees his peers have food at school, sometimes he will go snatch it
Stubborn ^b	<i>Trangayes</i>	Stubborn child
Negative thoughts ^c	<i>Negativ tinkin</i>	Negative thinking
Distracted ^c	<i>Maynd nor de</i>	His mind is not there (not concentrating)
Thinking too much ^c	<i>Tink tumos</i>	Thinks too much
Looking afar ^c	<i>Luk far</i>	You will see them sitting looking at a distance
Lacks appetite ^c	<i>Nor it</i>	Does not eat when given food

^aindicator of *poil at*, ^bindicator of *diskoraj*, ^cindicator of *wondri*.

Table 4. Fred fred indicators reported by 10% or more of sample, from most reported to least.

Indicator		Description	Reporting (%)
Fear at night	<i>Fred na net</i>	Scared while asleep, bad dreams	35
Supernatural	<i>E get yai</i>	Seeing supernatural things; seeing demonic things	28
Quiet ^a	<i>Saful</i>	Sits down quietly	28
General fear	<i>Eni tin fred</i>	Fearful to do anything; fear of anything	18
Panic	<i>Panik</i>	Panics	18
Sad ^a	<i>Nor gladi</i>	Sad, unhappy	15
Causes problems ^a	<i>Mek problem</i>	Does not listen to parents' requests	13

^aindicates overlap with *poil at* and *diskoraj*.

that if a child's parents were killed during the war or died in other ways, fear of their new guardians may cause them to act out in such a way, citing their behaviors as the result of "trauma." One adult respondent linked a child's behavioral problems directly to his father being a "rebel during the 11-year civil war... a tyrant, a destroyer," pointing to intergenerational transfer of aggression and "uncivil" behavior. According to this case, "the mother was forced to have intercourse with the boy's father and the child they gave birth to was like a mad child because of the drugs that the father had taken." Several other participants noted that children who were prone to violence, fighting, or "making confusion" were often called *rebel pikin dem* (children of rebel fighters) within the community. When one of our interviewers expressed surprise that children of such a young age would engage in these behaviors, the participant contextualized this behavior as normative given what was seen and done during the civil war: "Yes, during the civil war 6-year-old children killed people. Those of us who were living in the provinces witnessed it. They were given cocaine. They used our children and they were even more evil than the adults."

Poil at, diskoraj, and wondri (*sad/disruptive, sad/withdrawn, excessive worry*)

The three cultural concepts of distress *poil at*, *diskoraj*, and *wondri* were found to have substantial overlap in indicators (Table 3). A child with *poil at* was described as sad and disruptive, or as prone to sitting quietly and being withdrawn. Of the 10 indicators of *poil at*, six were shared with one or more of the other distress concepts. The four indicators unique to *poil at* were: not playing with others, sitting in the corner (not interacting with others), having little or no hope, and feeling *diskoraj* (Table 3). Respondents disagreed regarding whether *poil at* was seen mostly in male children (24%), female children (33%), or both genders equally (42%). The reported causes of *poil at* were varied, but were often linked to the death or loss of a parent or

other caregiver and the implications of lacking both "motherly love" and access to basic necessities. Citing a case of *poil at* regarding a young girl, one adult respondent attributed her symptoms—not mingling with her peers, appearing listless, feeling sorrow and *diskoraj*—to the death of her mother and the killing of her elder sister by the rebels during the war. Without anyone to care for her, she was hungry, poorly dressed (and thus ashamed), and was unable to go to school. According to this respondent, being a female made her more at risk of *poil at*, with fewer life options apart from schooling as compared to her male peers. Conversely, male children with *poil at* are more likely to have a "bad attitude" and engage in violent behaviors, according to another participant.

The cultural concept of *diskoraj* had no distinct indicators, sharing all indicators with other distress concepts, and matching up almost completely with *poil at* (7 out of 9 indicators). Respondents reported that a child with *diskoraj* sees him/herself "as being a different person among people," or that "he/she will want to be close to others but will be thinking that he/she will not be accepted." These feelings of inferiority and fear of unacceptance were often reported in relation to the wider context of poverty, for example, a child's lack of basic needs such as adequate clothing. Again, in the case of *diskoraj*, these behaviors were often linked to neglect on the part of a caregiver, as in: "if he doesn't have a guaranteed somebody in his life, he will just live on his own, that is why a lot of them just go to the street."

When probed, roughly half of respondents reported that *diskoraj* and *poil at* had the same meaning, suggesting that the two terms can be used interchangeably to describe a child with similar indicators of distress. The other half of participants claimed they were discrete concepts, though participants differed in what they considered the distinctions between the two concepts to be. Some individuals reported that *diskoraj* was more temporary and, if experienced over time, could lead to *poil at*. Others, however, saw *poil at* as a precursor to *diskoraj*. Speaking of a specific case of young

orphans, one participant said, “like these orphans, if his mother and father are not available and he wants something, and he does not get it, he will get *poil at*, and that will lead him to feel *diskoraj*. *Poil at* leads to *diskoraj*.” Regarding differences in the causes of these distress concepts, several participants identified *poil at* to be more directly related to family care provision:

It is *diskoraj* that comes first, and the last one is *poil at*. And for *poil at*, it is caused from the family affairs, especially if you don't have somebody that takes care of you in whatever condition you are in, then you will have *poil at*. But when you have someone in your family who is strong [financially], you will not have *poil at* because you will look up to him.

All participants who noted gender dimensions of the concepts reported *diskoraj* to impact both boys and girls equally; this contrasts with the gender divisions reported for *poil at*, which were less consistent.

A child exhibiting *wondri* was described as extremely worried and mentally “not at peace.” Six of the 11 indicators of *wondri* overlap with either or both *poil at* and *diskoraj*. Further, none of the indicators were reported by a majority of the respondents. The highest agreement (41%) was for the indicator weight loss/physically sick (*bodi nor fayn*). This indicator is also shared with *poil at* and *diskoraj*. One indicator of *wondri* that does not overlap with *poil at* or *diskoraj* is lack of appetite. One participant clarified that this was specifically due to loss in appetite (not food shortage), which contrasts with the pervasive problem of hunger reported by children and their caregivers in this context. Several respondents reported *diskoraj* to be an indicator of *wondri*. Describing his own child who at times experiences *wondri*, one participant said,

like for my child at home, when there is nothing, not even plates to wash, you will see him sit down and look far, and lay his hand so, like so. He sits quietly and thinks too much, he is *diskoraj*—yes, he is not lively.

Some respondents reported that a child with *wondri* will often fail to follow a caregiver's requests, which is not likely out of direct disobedience, but due to a low level of focus and lack of connection to others. Whereas a disobedient male child might be more readily classified as exhibiting signs of *gbos gbos*, *wondri* was discussed in the context of experiences with female and male children. At times, *wondri* was attributed to the death of a loved one, though in such cases the child was described not so much as mourning a loss, but rather as ruminating over who will take care of him/her going forward. To help such children, community members

often suggested encouraging them to do something to occupy their minds, such as going to school.

Fred fred (*abnormal fear*)

The final concept, *fred fred* (Table 4), was commonly described as a child who experiences abnormal amounts or types of fear. A child who is *fred fred* was often characterized as disobeying a caregiver's commands of completing a (reasonable) task or chore due to fear of circumstances related to the chore (e.g., the child is afraid of dark spaces). This fear extends to when the child is asleep; thus, “when asked to go to bed, [the child] will be scared.” A child exhibiting *fred fred* was also described as easily panicking, seeing “abnormal things” that others do not (e.g., visions linked to witchcraft or the devil), and/or exhibiting a wide range of fears, most specifically fear at night. “There are children who are not ordinary,” described one respondent, “you can even send that child into the room at night to bring something for you and they will refuse to do it. When they see darkness, they will think there is a person who wants to seize them. You will see them come running out of the room.”

Fred fred had the fewest indicators at seven, three of which overlapped with indicators of *poil at*, *diskoraj*, and *wondri*: sitting down quietly, feeling sad, and not listening. Participants also differentiated between *fred fred* and singular *fred*, the latter referring to a child who is obedient and respectful, often out of fear of punishment for doing something wrong. This type of *fred* was indicated by participants to be normal and even desired for children in this society, as it indicated respect for adults and recognition of their authority as disciplinarians. In contrast, participants noted that *fred fred* indicated an abnormal quality of fear that prevents children from participating fully in their family or community life as compared with other children their age. Participants noted that *fred fred* occurs equally across genders, but generally indicated that *fred fred* was exhibited more commonly in younger children.

Discussion

This study identifies salient problems facing young children in Sierra Leone, in addition to locally derived, culturally relevant concepts of mental distress. The most frequently reported challenges facing children—hunger, unmet material needs, and excessive work—reflect the complex challenges of living in multi-dimensional poverty, with inadequate access to social and health services (UNDP, 2016). The cultural concepts of distress that we identified were *gbos gbos* (angry, destructive behavior), *poil at* (sad, disruptive behavior), *diskoraj* (sad, withdrawn), *wondri* (excessive

worry), and *fred fred* (abnormal fear). Of these concepts, *gbos gbos* and *fred fred* were relatively consistent and had more distinct indicators than overlapping ones, while the indicators of *wondri*, *poil at*, and *diskoraj* had considerable disagreement and overlap, begging the question of whether they are truly discrete concepts of distress—a question requiring additional investigation. Further discussion of each of the five concepts of distress is included below.

Gbos gbos

The deviant behaviors commonly reported as describing *gbos gbos* youth include violence, disrespect of elders, and other forms of social disruption. Notably, these behaviors were also characteristic of youth combatants during the civil war (Fanthorpe & Maconachie, 2010; Peters, 2011) and were often contextualized by participants in this manner. In the Sierra Leonean context, this type of disobedience and willingness to cause harm is highly contrasted to expected behaviors of respect and obedience (Zuilkowski et al., 2019) and is viewed as a violation of the social structure (Shepler, 2014). In considering how participants interpret children exhibiting signs of *gbos gbos* (and mental distress more broadly) it is thus important to situate our findings in the context of Sierra Leone's history of war (Song et al., 2013).

Adults who were directly or indirectly impacted by child combatants in the war may be more sensitive to deviant behavior reminiscent of youth acts of violence witnessed during the war. Although the violence referenced by adult respondents occurred years after the conclusion of the civil war, past events may color their perceptions. Given findings of the intergenerational impact of conflict manifesting in child rearing (Song et al., 2014), child and caregiver concurrence on indicators of *gbos gbos* may suggest transmission of awareness and sensitivity towards deviant behaviors seen in former child soldiers. More research exploring the overlap in indicators of *gbos gbos* with warning signs that community members associate with potential youth violence would further the understanding of the links between the country's history of war and current interpretations of child behavioral disorders. Such research would also be useful for understanding how former experiences of trauma impact norms around what is considered socially acceptable versus deviant behavior. Finally, since *gbos gbos* was associated more strongly with pre-adolescent boys, additional research among slightly older populations may provide further insights into the age and gender dynamics of *gbos gbos*.

Poil at, diskoraj, and wondri

Participants disagreed over whether *poil at* and *diskoraj* were the same or substantially different concepts. One possibility is that *poil at* and *diskoraj* are separate categories, but overlap so significantly because they are often comorbid, in similar fashion to the comorbidity of mental disorders in other settings, such as depression and anxiety in Western contexts. Another possibility is that they fall within the same category, but represent different intensities of distress. Regarding *wondri*, though some considered it to be a separate construct from *poil at* and *diskoraj*, more than half of the indicators overlap across the three categories suggesting they are intertwined. Additional research into the nuances of each construct is necessary to determine if they fall within the same category or are independent concepts of distress that share certain indicators.

Multiple indicators of *poil at*, *diskoraj*, and *wondri*, such as weight loss and stealing food out of hunger, are related to conditions of extreme poverty like household instability and parental loss. These results support Yoder and colleagues' (2016) findings of a link between interpersonal family risk factors and mental health problems among children in Sierra Leone. In this sample, parental loss often led to distress over material needs, as in the case of *wondri*, where children were described as ruminating over who would provide for their basic needs. Prior evidence suggests the greatest risk for children occurs when poverty is associated with food scarcity, or where multiple risk factors coexist, such as family dysfunction and a child living alone on the street (Campos et al., 1994). These findings mirror those of other studies of child and adolescent mental health in low-resource settings that associate socioeconomic deprivation, family disruption, and lack of social stability to higher rates of distress among youth (Goodman et al., 2007; Patel et al., 2008; Patel & Kleinman, 2003; de Jong et al., 2006). These studies reveal the influence of the socioeconomic environment on explanatory frameworks of child mental health in such settings.

Fred fred

In this study, most indicators associated with *fred fred* were passive, internalizing behaviors, thoughts, and feelings. One externalizing behavior—*mek problem* (not listening, disobedience)—overlapped with other distress concepts. In the case of *fred fred*, however, *mek problem* is specific to the fear of doing a requested task, in contrast to intentionally inciting frustration and chaos in the constructs of *poil at* and *diskoraj*. In regard to *fred fred*, examples of this indicator were rather characterized as passive and avoidant. Thus,

although overlapping, the definitions of this indicator across constructs seem substantially different.

Most indicators of *fred fred* focus on fear, such as being afraid to go places alone or being afraid at night. One indicator of *fred fred* involved “seeing things” that were not physically present, including the supernatural. Although many ethnic groups in Sierra Leone have a history of identifying and paying homage to certain “devils” (e.g., in secret society meetings, or during seasonal festivals or ceremonial offerings) and participation in such ceremonies is socially and culturally important (Cannizzo, 1979), the type of supernatural associated with *fred fred* is considered distinctly abnormal, unexpected, and inducing real feelings of fear among children. Furthermore, though material, physical, and social suffering in Sierra Leone is often linked to witchcraft or the influence of demons or devils (Berghs, 2011), as are explanatory models of mental illness (van Gog, 2009; Yoder et al., 2016), these forces are socially recognized but not actually seen, nor do they tend to elicit the same degree of fear as experienced in *fred fred*. Contextualized in the context of war, this fear may have ties to rebel acts, which included attacks on secret society spaces and dressing in society-devil costumes (Henry, 2006).

Implications for children’s health and wellbeing

Across the five cultural distress concepts identified in this study, all include indicators that a child may not be connecting normally to others within the community, either due to internalizing behaviors such as withdrawal, or externalizing behaviors such as fighting, stealing, or other forms of violence. This poses the risk of exclusion and disconnect from community and/or family networks. In an analysis examining mental health across 11 low-resource countries, Patel and Kleinman (2003) found insecurity, a lack of “stability and certain livelihood, predictability of relationships, feeling safe, and belonging to a social group” to be associated with mental distress. In the resource-poor, Ebola-affected setting of Sierra Leone, instability and poverty are exceptionally high and pose large risks to youth. Those who are withdrawn or disconnected from their local communities due to socially unacceptable behaviors will likely experience reduced access to social capital and thus may be at a higher risk for negative physical and social ramifications. Our findings support Patel et al.’s (2008) recommendation for interventions that address family and structural determinants of health, such as awareness-raising in the community, and overcoming barriers such as lack of educational opportunities, displacement, and poverty.

Our findings further support the growing literature on the importance of nuance and contextualization in

research that seeks to understand cross-cultural mental health concepts and indicators (Bird, 1996; Kirmayer, 2007; Kirmayer & Ramstead, 2017; Kohrt & Hruschka, 2010; Kvasvig et al., 2014). This nuance is important for understanding and distinguishing abnormality from culturally understood and expected behaviors, and can be useful in clinical settings when addressing family or community concerns. Merging contextualized findings related to child mental health into existing clinical frameworks can bridge the divide between emic and etic knowledge, for example, by applying these findings when adapting existing measures based on Western psychiatric properties. Understanding of these concepts may also aid in the provision of mental health services that better incorporate local community perspectives.

Limitations

This work has several limitations. First, our research examines mental health-related problems facing children, and thus the concepts of distress identified in this article are ones that are considered deviant or problematic. Second, this is a pilot investigation and while we have identified locally derived distress constructs, we are unable to determine whether these comprise discrete cultural syndromes. Furthermore, while our research explores the thoughts, feelings and behaviors of children experiencing the given distress concepts, this work should be considered the first step of several to fully flush out a comprehensive set of indicators or symptoms. More research is also needed to better contextualize symptoms and complaints via ethnographic and historical analyses. While we have identified five culturally relevant distress concepts and some of these findings can be actively applied to the clinical setting, further work is needed to develop clinical measures based on these constructs. In particular, further contextualization of symptoms in terms of understanding relevant ethnopsychology, ethnophysiology, ethnospirituality, and means of treatment would benefit clinical applications by helping to avoid potential decontextualization error (Hinton & Good, 2015). Finally, although our study team members who conducted the interviews and subsequent analysis are fluent in both Krio and English and have advanced training in social work, we acknowledge that translation of complex ideas and concepts between two languages that may not have equivalent words or meanings behind given words poses a further limitation.

Conclusion

The concepts of distress identified in this article consist of behaviors, feelings, and thoughts that are considered abnormal within local communities in Sierra Leone.

Mental distress is often an ostracizing experience for a child in this context (Yoder et al., 2016)—we see this to be the case in several of the distress concepts identified in this work. In a country that has been rocked by social upheaval, extreme poverty, and disease, social connections often provide underlying stability, securing access to emotional support and the potential for physical resource sharing; behaviors that detract from making such connections are thus often problematic for young children.

This study supports the need to contextualize and understand deviance from an “emic” perspective—that is, one that is deeply informed by local cultural and embodied knowledge (Lett, 1990)—a perspective that has been under-utilized in comparison to “etic” approaches favoring psychiatric diagnostic categories (Patel et al., 2008). Findings from this study illustrate the importance of gaining rich contextual understanding when characterizing child mental health problems and using this knowledge to inform health systems and services in that setting (Song et al., 2013; Yoder et al., 2016). Findings will also be important for informing clinical work in Sierra Leone as well as other studies of child mental health in similar contexts. Identifying, adapting, or creating measures to clinically screen a child with one of the five mental health-related problems presented in this paper could help inform treatment options and health system improvements for children in this setting as well. Further research into the driving causes and outcomes of these five concepts will be important for future education, preventative outreach, and the development of locally relevant diagnostic tools. Exploring mental health problems and cultural concepts of distress in pre-adolescent and adolescent youth will be an important next step in furthering our understanding of mental health challenges facing young people in Sierra Leone, and will aid in addressing the risks associated with youth who experience distress.

Acknowledgements

We would like to acknowledge the efforts and dedication of the local Sierra Leonean research staff in the conceptualization, collection and analysis of this data, including Musu Jambai, Moses Zombo, and Zakiatu Rosetta Dixon. We would also like to thank our collaborating partner organization Caritas Freetown, and Reverend Fathers Peter Konteh and Joseph Bangura.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This study was supported with funding from Eunice Kennedy Shriver National Institute of Child Health and Human Development, Grant Number R01-HD-073349.

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