Addressing the Consequences of Violence and Adversity: The Development of a Group Mental Health Intervention for War-Affected Youth in Sierra Leone

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Addressing the Consequences of Violence and Adversity

The Development of a Group Mental Health Intervention for War-Affected Youth in Sierra Leone

Theresa S. Betancourt, Elizabeth A. Newnham, Katrina Hann, Ryan K. McBain, Adeyinka M. Akinsulure-Smith, John Weisz, Grace M. Lilienthal, and Nathan Hansen

It is estimated that over one billion children and adolescents live in regions affected by armed conflict (Jacob et al., 2007). Whereas access to mental health care is already very limited in low- and middle-income countries (LAMIC)—the World Health Organization (WHO) estimates the level of untreated mental disorders among adults in low- and middle-income countries may be as high as 78 percent (Kohn, Saxena, Levav & Saraceno, 2004)—the gap between the need for services and their limited availability is accentuated in regions affected by armed conflict (Betancourt, McBain, Newnham & Brennan, 2013; IASC, 2007; Walker et al., 2011). Among adolescents and youth exposed to war, psychological distress may be expressed in higher rates of internalizing problems such as PTSD, depression, withdrawal, and social isolation as well as externalizing problems (e.g., aggression, hostility) (Betancourt et al., 2013; Bryant, 2006; Johnson et al., 2008). Although many war-affected youth demonstrate great resilience, those who continue to suffer elevated levels of distress and impairment in the post-conflict environment are at risk for poor health and development, low rates of school completion, and
Few evidence-based interventions exist to address mental health problems in war-affected youth (Tol et al., 2011), and even fewer interventions focus on helping war-affected youth struggling with distress and impairment to navigate successful transitions to school and employment programs. Given years of sustained exposure to violence and subsequent polyvictimization and loss among young people in war zones, it is important that the scope of interventions be broadened beyond models targeting a singular disorder such as depression or PTSD to anticipate comorbidity and diverse manifestations of complex trauma (Cloitre, 2009; Lanktree et al., in press; Peltonen & Punamäki, 2010). The present study used a multi-phase mixed methods design (see figure 7.1) to inform the development of a feasible and acceptable intervention for war-affected youth. In this design, results of a prior longitudinal study and new qualitative data were integrated to identify the focal points for intervention development. The quantitative data investigated the longitudinal trajectories of psychological distress in the post-conflict setting, and qualitative data were collected to assess specific areas of priority per the opinions of stakeholders on ongoing emotional and behavioral problems that pose obstacles to successful functioning among some war-affected youth. These findings were used to identify important intervention components and modalities for treatment delivery.

**A MIXED METHODS APPROACH TO INTERVENTION DEVELOPMENT**

In 2010 the team launched a new phase in a multi-phase longitudinal research project to design and evaluate a mental health intervention for war-affected youth. Intervention development built upon the evidence base being assembled via an ongoing longitudinal study of war-affected youth which has been conducted in Sierra Leone since the end of the brutal eleven-year civil war in 2002. To further root this process in the present post-conflict realities of the setting, we used mixed-methods data collection to understand the challenges facing war-affected youth in post-conflict Sierra Leone and learn from experts working with troubled youth about the core problem areas and treatment components they deemed a priority.

**PRELIMINARY EVIDENCE**

Our intervention development efforts in post-conflict Sierra Leone originate from a ten-year Longitudinal Study of War-Affected Youth
The research team collected qualitative data to address questions relevant to intervention development, including: What ongoing symptoms and functional impairments pose barriers to life success among war affected youth? What sources of resilience characterize war-affected youth that can serve as strengths to emphasize in intervention development? What modalities of delivery are most salient to this setting? What potential barriers to and facilitators of intervention delivery bear consideration? Each of these domains were explored among both war-affected youth and caregivers as well as professionals working in the field of war-affected youth and mental health. For those working professionally with war-affected youth, we added an additional area of questioning: What intervention components deserve priority attention to best address the needs of war-affected youth in the post-conflict setting?

**Qualitative Sample**

To address our central research questions we conducted key informant interviews with youth and adult community members. Through connections with local NGO partners a sample of war-affected youth (N=21), balanced by age and gender, as well as a sample of caregivers (N=19), balanced by gender, was identified. Expert participants were eight local and international experts in complex trauma treatment identified through our collaborative networks from the Ministry of Health and non-governmental organizations providing mental health services. Once initial ideas for intervention targets and content were identified, members of a Community Advisory Board (CAB) met three times to review and discuss findings, implications for intervention content, and potential barriers to and facilitators of treatment engagement and retention. Our local CAB included parents, youth, representatives of local family support units in the police, teachers, and staff from youth serving organizations.

**Key Informant Interviews**

With informed consent one-to-one key informant (KI) interviews were conducted and recorded by trained local research assistants at a location convenient to participants. A semi-structured interview guide was employed to investigate common problems facing war-affected youth in the post-conflict environment, areas of ongoing psychosocial difficulty or functional impairments, as well as intervention elements or modalities seen as important for intervention development. Interviews with experts working on youth issues were held either by phone or face to face. These experts also reviewed a summary sheet laying out the initial intervention components under consideration and commented on their appropriateness to the Sierra Leone context and the target population. Each KI interview took about one to two hours to complete. All interviews were
transcribed, translated, and stored on encrypted computers. All study methods were reviewed and obtained research ethics approval from affiliated Institutional Review Boards.

Analysis of the Qualitative Data

Qualitative data analysis was informed by Grounded Theory techniques (Miles & Huberman, 1994; Strauss & Corbin, 1990) and a four-step analytical strategy derived from Content Analysis (Creswell, 2009; Smith, 1992). First, we used open-coding to examine key themes in the data (e.g., current issues relevant to war-affected youth, clinical suitability of treatment components, improving youth access to services). Second, we iteratively developed a coding scheme organized by key themes. Third, two team members trained in the coding scheme independently coded 10 percent of transcripts to examine reliability. Poor agreement was grounds for refining the code book and retraining until coding was at 80 percent agreement. Fourth, team members coded the full dataset in NVivo (QSR International, 2010) using the robust coding scheme. Results provided a deeper understanding of the delivery context and strategies for improving youth engagement and retention. Results also provided data on how to integrate the Youth Readiness Intervention (YRI) into other community services such as education and employment programs and was a cross-check of the clinical relevance and acceptability of the suggested YRI components.

Qualitative Findings

Overall, the qualitative data triangulated our prior quantitative findings, revealing that those war-affected youth who continue to struggle in the post-conflict environment demonstrate a range of comorbid problems: symptoms of depression and hopelessness; traumatic stress reactions manifest as problems with emotion regulation and anger; as well as difficulties in interpersonal relationships. Risky coping behaviors, such as drug and alcohol use, theft, physical fighting, intimate partner violence, and transactional sex were frequently reported. Further, youth and adult KIs often indicated that these behaviors were worsened by negative peer influences, poor social support and poverty. One caregiver stated, “The drug habit has become notorious now. The use of diamba and cannabis is all over the place, as well as prostitution, abusive language, disrespect for elders, and theft” (male, forty years). Another caregiver reported, “Their attitude to life is bad. Nobody motivates them. They just seem to be abandoned.”

These difficulties posed barriers for youth trying to access the few opportunities for education or employment available. For example, when asked whether the youth in her community had any goals in life, one sixteen-year-old female youth participant replied, “They do, but they do not have the means to realize them.” An expert reported that youth “easily drop out of school, because they still don’t...have the kind of coping mechanisms they really require to face challenges.” Our study findings also suggest that malleable protective factors (e.g., social support, determination, coping skills, school involvement, employment, and positive peer relationships) could be leveraged by interventions to improve mental health outcomes among youth.

Qualitative findings indicated that planned interventions should focus on the multidimension of severe stressors facing youth in post-conflict environments. For instance, one expert key informant emphasized, “I think they are more traumatized by the day-to-day frustrations of poverty and lack of perspective than the war traumas.” In addition, the concept of readiness was mentioned by twenty-seven participants (56.3 percent). One expert informant suggested that “merely sending them to school still creates some challenges...they easily drop out, because they still don’t [have] the kind of the coping mechanisms they really require to face challenges.” Interviews with key informant experts from youth-serving agencies also revealed several contextual realities relevant for intervention design: first, limited human resources mandated delivery in groups by counselors with a very basic level of mental health training (high-school completion minimum, with some training and experience in counseling). Second, comorbidity and histories of complex and repeated trauma would need to inform service development as single disorder-focused interventions might not meet the needs of youth struggling with a variety of comorbid issues and ongoing threats to safety and security. Third, the intervention would need to link to opportunities for employment or education in order to have lasting effects. A summary of themes arising from the qualitative data is available in table 7.1.

PHASE II: APPLICATION OF FINDINGS:
DEVELOPING THE YOUTH READINESS INTERVENTION

Building on our quantitative and qualitative findings, the Youth Readiness Intervention (YRI) was developed to embody what Herman (2001) refers to as a “Stage 1” trauma intervention intended to stabilize youth, ensure their safety, build healthy emotion-regulation practices, and strengthen skills for managing painful memories and experiences. In the literature on trauma and recovery Stage 1 treatments target coping skills, immediate symptom alleviation, and healthier day-to-day functioning; they can also serve as prerequisites for intensive Stage 2 trauma-focused
### Table 7.1. Themes emerging from qualitative data interviews of youth, caregivers, and experts

<table>
<thead>
<tr>
<th>Theme</th>
<th>Youth N (%)</th>
<th>Adults N (%)</th>
<th>Experts N (%)</th>
<th>Illustrative Quotes</th>
</tr>
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<tbody>
<tr>
<td><strong>Common Symptoms and Functional Impairments</strong></td>
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<tr>
<td>Risky behaviors</td>
<td>20 (95.2)</td>
<td>17 (89.5)</td>
<td>8 (100)</td>
<td>“Many things happen in a country after a war experience... and what is happening around now is different, such as theft, at the scale and level it is carried out, fighting with weapons, which has also become rampant.” Female, thirty-two years, expert informant.</td>
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<td>For men, it is the drugs, and prostitution for the girls, as they have ended up being responsible for themselves with no one to care for them.” Female, twenty-three years, youth.</td>
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<td>“It is similar for both boys and girls, and most of the girls have taken to drinking, smoking, and are into every bad way of life, because they have not been able to achieve for themselves.” Female, forty-five years, parent.</td>
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<td></td>
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<td>“On the whole, if you look at the lives of the young boys and girls, it is not good because some are living wayward lives and some lives do not commensurate to the expectation of the community... Some look at their past and indulge into a way of life similar to how it was before and just as wayward.” Male, thirty-five years, parent.</td>
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<td>Since the end of the war, peer influence has been great on the youths. For those coming from undisciplined homes, the peer influence has made them wayward and even for those who come from disciplined homes, it tends to mold them into what it wants them to be.” Female, thirty-nine years, parent.</td>
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<td>“Some youths ran off with the rebels and copied waywardness and upon their return have been disrespectful of the elders and behave just as they choose.” Female, twenty-three years, youth.</td>
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<td>“The life the children are living today is not pleasing as a parent because the children have lost focus after the war. They are living as they please not consulting parents or doing anything for their own future. They are living life as if life is only about waking up and sleeping, and they do not plan for the future.” Male, fifty-two years, parent.</td>
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<td><strong>Bad behaviors/waywardness</strong></td>
<td>17 (81)</td>
<td>11 (57.9)</td>
<td>5 (62.5)</td>
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<td>“Some of those who fought the war tend to want to learn new ways of life, whereas others tend to be living violent lives, reliving their violent past, stealing from people.” Female, twenty years, expert.</td>
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<td>“There is poverty, youths are engaged in fighting, which is all we see.” Female, forty-two years, parent.</td>
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<td>“Youths have become more violent and theft has become an order of the day in the lives of the youths and the way of life is breeding suffering in the country.” Female, thirty-eight years, parent.</td>
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<td>“Interestingly, within a social group, there is so much tendency for violence because your status within the group is being justified by how violent, how bold, how strong you are, it actually encourages children to be violent.” Male, thirty-eight years, expert.</td>
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<td>“Youths who participated in the war are mostly known to re-experience, and relive the experiences of the war.” Female, twenty-three years, youth.</td>
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<td>“It is really about getting over the trauma of the war, and there are some youth who have eventually found it difficult to move on to learn something new in their lives.” Female, twenty-three years, youth.</td>
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<td>“I can say that what they are experiencing is so miserable for now... what we see in Kono is that the bad attitude of youths is not encouraging.” Male, twenty years, youth.</td>
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<td>“Some are very disrespectful to their elders.” Male, eighteen years, youth.</td>
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<td>“Their attitude to life is bad. Nobody motivates them. They just seem to be abandoned.” Female, forty-three years, parent.</td>
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<td>“Some who lost their family live on their own in the street. They are living with bad attitudes.” Male, forty, expert.</td>
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<td>“Some do have goals and for others the opportunity does not easily come by, others play with it and fail to put their shoulders to the wheel, but how to achieve that goal becomes another problem in the face of peer influence.” Female, thirty-nine years, parent.</td>
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<td>“Some youths are known to have frustrate (locally derived term for distress) because they could not achieve their future goals, especially when they see their friends with whom they began having climbed up the heights of success.” Female, twenty-three years, youth.</td>
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</tbody>
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(continued)
### Table 7.1. (Continued)

<table>
<thead>
<tr>
<th>Theme</th>
<th>Youth N (%)</th>
<th>Adults N (%)</th>
<th>Experts N (%)</th>
<th>Illustrative Quotes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal problems</td>
<td>5 (23.8)</td>
<td>4 (21.1)</td>
<td>4 (50)</td>
<td>“They may quarrel over one person getting an advantage over the others, like getting a job when the other cannot.” Female, seventeen years, youth.</td>
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<td>“These are groups of children that come together, well, with a perceived aim of socializing,... but then you have a lot of tension and conflict... within the groups themselves.” Male, thirty-eight years, expert.</td>
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<td>“Girls normally have a lot of problems with relationships, even domestic relationships... and they are really very sensitive.” Male, thirty-eight years, expert.</td>
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<td>“It has not been easy since the love that existed among certain people turned to feuds between people after the loss of their relatives during the war. That usually manifested when certain conversations came up among them. There has been no love among the youth and in Sierra Leone in general.” Male, twenty-five years, expert.</td>
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<td>Hopelessness</td>
<td>1 (4.8)</td>
<td>5 (26.3)</td>
<td>4 (50)</td>
<td>“There has not been hope for the future [among Sierra Leonean youth].” Female, forty-three years, parent.</td>
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<td>“Some girls would have been raped and come to have a negative attitude toward men, not taking life seriously again.” female, forty-three years, parent.</td>
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<td>“There are no jobs, and they cannot become somebody in the community, there has been evidence like that of one youth in [a town] who hung himself with a rope as a result of hardship.” Female, thirty-three years, parent.</td>
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<td>Common Sources of Resilience</td>
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<tr>
<td>Goal-setting</td>
<td>11 (52.4)</td>
<td>11 (57.9)</td>
<td>7 (87.5)</td>
<td>“Some youths want to be somebody in life and even though they do not have financial support, want training in skills.” Female, twenty-three years, youth.</td>
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</tbody>
</table>
interventions (Herman, 2001; Silva et al., 2003). In this manner the YRI builds upon a number of effective CBT components including psychoeducation, behavioral activation, relaxation, cognitive reframing, mood monitoring and interpersonal skills. The STAIR manual developed by Cloitre and colleagues (Cloitre, Koenen, Cohen & Han, 2002) served as an additional model in developing the YRI and its sequencing. Treatment components addressing interpersonal deficits were drawn from group interpersonal therapy (IPT-G) following the first author’s experience with delivering this intervention to youth in northern Uganda (Betancourt et al., 2012; Bolton et al., 2007), and the salience of interpersonal difficulties for the lasting effects of war in the lives of youth from our qualitative data.

As a Stage 1 treatment the YRI intervention components reflect three stages common to trauma-focused evidence based treatments: stabilization, integration, and connection (Cloitre, 2008). In the stabilization phase common practice elements (e.g., affect identification, emotion regulation, and coping skills) are taught and practiced. In the integration phase trauma psychoeducation and narrative discussion of moving from past to future goals and productive problem solving are critical elements. In the connection phase interpersonal and communication skills are taught and practiced in group along with methods for navigating challenges in interpersonal relationships. The final YRI sessions are future-focused and include monitoring and acknowledging progress throughout the intervention. These common treatment elements have demonstrated effectiveness in prior intervention work with multisymptomatic youth (Barlow, Allen & Choate, 2004; Chorpita, Daleiden & Weisz, 2005; Weisz, Hawley & Jensen-Doss, 2004; Wilamowska et al., 2010). Given our consultation with experts in Sierra Leone, popular Krio phrases was used in the session titles to reflect the content and help youth understand each technique (see table 7.2).

To prepare the intervention for use in Sierra Leone, evidence-based techniques drawn from cognitive behavioral therapy, and group interpersonal therapy were adapted specifically for this low-resource setting and context. Modifications were required. For example, given the low literacy levels in the region the common practice of assigning homework for youth engaged in treatment was modified; instead of written material, participants were encouraged to practice skills learned in the group within their peer and family relationships between sessions. The results of practice were then reviewed through discussion and verbal reports. A number of common practice elements were adapted to fit the local context. For instance, deep belly (diaphragmatic) breathing was introduced and practiced as a relaxation skill in group. Participants were instructed to practice it at least once during the intervening week when they encountered a stressful interaction or situation and then returned to group to discuss their experiences using the technique. As another example, a thermometer was often used in more developed countries as a metaphor for monitoring moods. However, in Sierra Leone few youth are familiar with thermometers, making the analogy difficult to transfer. Thus, the group discussed potential metaphors for monitoring emotion. It was determined from our qualitative data that anger (termed terz in Krio) was a key emotion that youth struggled with and that a pot of boiling water (reacting to increases and decreases in heat) or a radio (for which the volume can be turned up or down) would be more appropriate guiding metaphors. The clinical team tested these metaphors in group sessions discussing how to watch for triggers for anger and implement relaxation and cognitive restructuring in a preventive fashion. Ultimately the metaphor of boiling water was seen as most effective at communicating the concept and was used in the manual.

Finally, a group treatment was considered the most appropriate delivery mode. Group interventions are useful in settings where few human resources for mental health exist. Group therapy has the potential to normalize difficult experiences and highlight progress through witnessing change in others. Groups can also encourage peer-to-peer learning and social connections that can contribute to sustaining the intervention’s impact by providing social support long after treatment ends (Bass et al., 2006).

**PHASE III: ASSESSING INTERVENTION FEASIBILITY, ACCEPTABILITY, AND SATISFACTION**

To evaluate the feasibility of the YRI an open trial of the intervention was conducted among N=32 youth stratified by age (fifteen to seventeen and eighteen to twenty-four years old) and gender (male and female); four groups in total. Following a strong demonstration of feasibility and initial effectiveness the intervention was tested in a randomized controlled trial conducted in Sierra Leone’s capital Freetown (Betancourt et al. Under review). Improvements in outcomes among YRI participants (n=436, ages fifteen to twenty-four years old, 54 percent female) were further supported through analysis of post-intervention qualitative interviews conducted with a randomly selected subsample of youth participants (n=9). Many reported clinically meaningful improvements in emotion regulation and were able to discern the appropriate skills for specific situations; for example one youth participant stated: “Whenever I’m involved in an argument, I get nervous or shocked, I usually... use communication skills or do some... [relaxation skills] to calm my nerves” (female, fifteen years). Others
Table 7.2. Youth Readiness Intervention session outline (with summary and Krio title)

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Activity</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Introductions and Building Group Cohesion</td>
<td>“Kapu sense no kapu wod” (Making sense of experiences)</td>
</tr>
<tr>
<td>2</td>
<td>Trauma Psychoeducation</td>
<td>“Sabi nor get worn” (If you have knowledge, you will no longer be worried)</td>
</tr>
<tr>
<td>3</td>
<td>Understanding the Link Between Beliefs, Bodies, and Behaviors</td>
<td>“Al kondo day lae in bel ehn ga ron bot yu nor no ban wan in bel ehn day at” (If you see lizards laying with their bellies on the ground, you won't know which one's belly hurts-You can't know someone's beliefs without them telling you)</td>
</tr>
<tr>
<td>4</td>
<td>Taking Control of Your Life</td>
<td>“Be yu yone watchman/watchwoman” (Be your own watchman/watchwoman)</td>
</tr>
<tr>
<td>5</td>
<td>Relaxation and Behavioral Activation</td>
<td>“Yu kin chenje ow yu lil” (You can change how you feel)</td>
</tr>
<tr>
<td>6</td>
<td>Dealing with the Past/ Things Lost and Things Gained</td>
<td>“Nah we yone” (We own it-The past is part of us)</td>
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<tr>
<td>7</td>
<td>Sequential (step-by-step) Problem Solving and Introduction to Relaxation Techniques</td>
<td>“If yu tek tem kill anch, yu go see in gut” (If you act with patience you will reach your goal)</td>
</tr>
<tr>
<td>8</td>
<td>Building Interpersonal Skills</td>
<td>“If yu was yu han fayn yu go it wit big pipul” (Present yourself well you will have many opportunities)</td>
</tr>
<tr>
<td>9</td>
<td>Review of Coping Skills and Problem Solving</td>
<td>“If yu nor no asai yu komot, yu for no asai yu day go” (If you don't know where you are coming from, you should know where you are going)</td>
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<tr>
<td>10</td>
<td>Addressing Negative Self-Perceptions</td>
<td>“Gud woold pull gud kola” (If you present yourself positively, you will receive positive reactions)</td>
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<tr>
<td>11</td>
<td>Review of Skills and Relapse Prevention</td>
<td>“Timap nor day tap yu for dance” (Have courage to tackle your challenges and you will celebrate in the end)</td>
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<tr>
<td>12</td>
<td>Celebration and Moving Forward</td>
<td>“Tim for gaddi en go be lo” (Time to celebrate and move forward)</td>
</tr>
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</table>

Stabilization

- Community Outreach and Screening
  - Introduce intervention to community
  - Provide psychoeducation on the consequences of trauma to local leaders

- Session 1: Introductions and Building Group Cohesion
  - “Kapu sense no kapu wod” (Making sense of experiences)
  - Introduce intervention format and goals
  - Build motivation for group participation and cohesion among group members
  - Elicit individualized goals for each group member

- Session 2: Trauma Psychoeducation
  - “Sabi nor get worn” (If you have knowledge, you will no longer be worried)
  - Provide education regarding the impact of trauma/loss on family functioning and relationships, including how trauma contributes to mood dysregulation and anger

- Session 3: Understanding the Link Between Beliefs, Bodies, and Behaviors
  - “Al kondo day lae in bel ehn ga ron bot yu nor no ban wan in bel ehn day at” (If you see lizards laying with their bellies on the ground, you won't know which one's belly hurts-You can't know someone's beliefs without them telling you)
  - Discuss how beliefs, bodies, and behaviors are connected
  - Explore healthy and unhealthy coping strategies

- Session 4: Taking Control of Your Life
  - “Be yu yone watchman/watchwoman” (Be your own watchman/watchwoman)
  - Discuss self-care and taking charge of your life
  - Introduce skills for self-regulation/mood regulation, “staying busy and having fun” and “belieh blow”

- Session 5: Relaxation and Behavioral Activation
  - “Yu kin chenje ow yu lil” (You can change how you feel)
  - Reflect on how behaviors can alter mood
  - Learn about how progressive relaxation and guided imagery can combat tension
  - Identify opportunities for behavioral activation and pleasant activity scheduling

- Session 6: Dealing with the Past/ Things Lost and Things Gained
  - “Nah we yone” (We own it-The past is part of us)
  - Psychoeducation about grief and loss, and growth in the face of trauma and loss

- Session 7: Sequential (step-by-step) Problem Solving and Introduction to Relaxation Techniques
  - “If yu tek tem kill anch, yu go see in gut” (If you act with patience you will reach your goal)
  - Introduce sequential problem solving via role play
  - Introduce and practice the first relaxation technique: deep belly breathing

Integration

discussed the use of cognitive and behavioral techniques to improve mood: “When I’m troubled, I go to a quiet place and think about the positive...I look for something that will distract me...If I continue in that negative thinking, it will affect my entire being” (female, fifteen years). Similarly, one participant reported increased social support and use of behavioral activation techniques: “Now if I have a problem I look out for someone that I trust and tell him or her my problem, then she will advise me about what to do. If it is good advice then I will do it, then I will go out and start playing with my friends to get rid of the depression” (female, fifteen years).
Others spoke of the impact on aggression and high-risk behaviors. One male participant (twenty-one years) stated, “They told me about if I have a problem, especially finance, you should not go and steal because you want to solve that problem, you should be patient or you meet with elders around and talk to them nicely for help, that’s the idea they gave us.” Another participant said “I don’t know how to interact with people, I was so aggressive with people, but since I went through this session my life has changed” (female, sixteen years).

Most participants also spoke about the value of the group in building trusting relationships: “Because most of us came from the same area we moved together, we came home and [practiced what we’ve learned]” (male, seventeen years). A sense of achievement was evident throughout the interviews. One participant reported, “If other youths go through this process . . . if some of them have a hot temper, they can control it, if they have a problem, they can solve it, if they have stress they can find ways of solving that stress” (male, seventeen years). Consistent with YRI aims participants reported a change in perspective: “I imagine the future. How I should improve myself and I should not be involved in any wayward life” (male, seventeen years). Another participant stated “Since then [the YRI] people started to say that I have changed. People can now send you, and you go there and be quiet and listen when elders are talking” (female, 15 years).

DISCUSSION

It is evident that war-affected youth in Sierra Leone today experience high levels of psychological distress, comorbidity, and sequelae of complex trauma. Preliminary evidence from our ongoing Longitudinal Study of War-Affected Youth in Sierra Leone indicated a range of post-conflict stressors that impact youths’ ability to sustain improvements in psychological symptoms and functioning. Unemployment, violence, and poverty remain persistent problems. These issues were further echoed in the qualitative first phase of the current study. Frequent reports of interpersonal difficulties, lack of opportunities to formulate goals and enact them, and a lack of adaptive coping strategies were evident in the qualitative data and informed the development of an evidence-informed treatment through a multi-phase mixed-methods research design.

Drawing on qualitative and quantitative data an intervention to address ongoing difficulties with emotion regulation, problem solving, and interpersonal functioning was developed. The resulting Youth Readiness Intervention is a future-oriented intervention designed to help war-affected youth build skills essential for navigating a low-resource, post-conflict environment. The brief Stage 1 trauma intervention, focused on stability, integration, and connection, was acceptable to youth and community members. The use of local terminology helped the target population connect to the content. In addition, the YRI is highly feasible in this and other resource-poor settings as it was developed to be delivered by health workers with a very basic level of training as long as excellent supervision structures are put into place (Newnham, Akinsulure-Smith, Hann, Hansen & Betancourt, Under review). Finally, the use of a group for treatment delivery is intended to build social connections and supports that can be sustained long after the formal treatment period. Additional modules are being explored relating to traumatic grief and bereavement for loved ones, life opportunities that were lost, and modules addressing “taking charge” of one’s life.

In conclusion, mental health service research can contribute a great deal to the service gap characterizing most war-affected settings. In Sierra Leone, despite the presence of psychosocial and reintegration programs instituted immediately after the war (The Coalition to Stop the Use of Child Soldiers, 2006; UNICEF, 2005; Williamson, 2005), limited efforts have been made to establish sustainable programs to promote robust, long-term mental health services for war-affected youth (Williamson 2006). Today, 76 percent of Sierra Leoneans are under the age of thirty-five (World Bank, 2011a), and most lived through the eleven-year civil war. Furthermore, schemes to advance youth employment and educational opportunities, such as the $20 million Youth Employment Scheme supported by the World Bank (World Bank, 2011b), may be inaccessible to many troubled youth whose persistent symptoms and functional impairments make interactions with peers and supervisors difficult. Similar difficulties in family and community relationships also pose problems for many war-affected youth, particularly those facing stigma due to past involvement with armed groups (Betancourt, Agnew-Blais et al., 2010). The current study highlights the innovative use of a mixed-methods approach for developing and evaluating a group-based psychological intervention to serve these youth.

These findings have a number of research implications. First, this multi-phase, mixed methods study laid out a process for identifying locally relevant evidence-based treatment elements and cultural adaptations that can be replicated by other groups interested in developing and implementing evidence-based practices for war-affected youth in resource-constrained settings. Second, process outcomes demonstrate the feasibility of recruiting, retaining, and serving diverse groups of war-affected youth in community settings with interventionists who have very basic levels...
of training under a robust supervision structure. Third, our examination of fidelity-enhancing, low-cost methods for targeted supervision present important elements of intervention delivery for use by local organizations and future research.

With a strengthened evidence base our research can help to build capacity in Sierra Leone and other war-affected settings to implement, monitor, and evaluate enhanced psychosocial services for troubled youth. Additionally, as such interventions are developed and tested, they can be systematically integrated into ongoing youth employment and educational programs. In Sierra Leone partnerships between local service providers and the Sierra Leone Government, through its Ministries of Health and Ministries of Social Welfare, are laying the foundations for future implementation of the YRI in both rural and urban settings. Such collaborative efforts can go a long way to address the serious gap between the needs of war-affected youth and the services available to help them thrive.

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