A Mixed-Methods Study to Validate a Measure of and Explore Influences on Child Mental Health in Eldoret, Kenya

by

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Thesis submitted in partial fulfillment of the requirements for the degree of Master of Science in the Duke Global Health Institute in the Graduate School of Duke University

2017
ABSTRACT

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Abstract

Background: In Kenya, approximately 14.5% of children and youth meet criteria for a mental disorder. Despite this high burden, research is very limited related to mental health problems this population. Research is needed on the measurement of child mental health problems and on the risk and protective factors associated with these conditions.

Objectives: (1) Evaluate a set of survey items, chosen from both standardized measures and locally developed items, to identify those that best differentiate between children with and without mental health problems. (2) Identify and explore important family-level influences on child mental health.

Methods: Individual surveys and semi-structured interviews were administered to members (1-2 caregivers, 1 child age 8-17) of 22 families living in Eldoret, Kenya. We evaluated differences in survey item endorsement between children with and without mental health problems to identify the best performing items. We used mixed-methods analysis of semi-structured interview transcripts and associated rating scores to explore differences between children with and without mental health problems on a variety of family-level variables.

Results: Following an extensive cultural adaptation process, fourteen of 26 survey items were successful in differentiating between children with and without mental health problems. Successful survey items were all drawn from standardized measures; no locally developed items were successful. All family-level variables (e.g., overall family functioning, couples’ relationship quality, parent-child relationship quality, and caregiver mental health) were strongly associated with child mental health outcomes, evidenced by large effect sizes ranging from 0.86 to 4.16. Subsequent qualitative analysis identified specific components of these variables likely contributing to the large numerical differences in scores.

Conclusions: The results of this study both suggest that standardized measures are appropriate for use in this population and highlight the importance of cultural adaptation before implementing standardized assessment tools. Additionally, the results indicate that the family environment is a promising target for interventions aiming to reduce mental health problems in Kenyan children.
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Acknowledgement

This project would not have been possible without the support of the dedicated faculty and staff at the Duke Global Health Institute. To my research committee, Kathy Sikkema and Karrie Stewart: I want to extend a special thanks for your time, advice and support. To my mentor and supervisor, Eve Puffer: I am beyond grateful for your expertise, guidance, patience, and dedication. Thank you for the countless hours you poured into me and into this project. I would also like to thank Alyssa Platt for her guidance through the statistical analysis process.

I am most grateful to Franck Makumbe, Wilter Rono, and the rest of the dedicated team of research volunteers in Kenya whose diligent work was instrumental in the success of this project. This project would not have been possible without their contribution. I am also deeply thankful for the people of Eldoret and their willingness to share their time and stories with me.

Lastly, to my husband, Christopher: thank you for your unending love and support, and for always encouraging me to furiously chase after my dreams.
1. Background

1.1 Burden of Mental Health Disorders

Mental health problems in children are one of global health advocates’ highest priorities because they are among the leading causes of disability for children and youth (Scott et al., 2016). In fact, nearly one-third of global disability-adjusted life years (DALYs) lost from children and adolescents annually are due to neuropsychiatric disorders (Kieling et al., 2011; Scott et al., 2016)). These disorders often go untreated for years, significantly disrupting healthy development (WHO, 2003; WHO, 2012). Moreover, because nearly three-quarters of adult disorders have their onset or origins during childhood (Kim-Cohen et al., 2003; Kessler et al., 2007), this problem has long-lasting effects (Nevo & Manassis, 2009; Polanczyk & Rohde, 2007; Shaw et al., 2012). Children with a mental health diagnosis are at increased risk for an array of negative consequences, including poor educational attainment (Fergusson et al., 1993), future drug and alcohol use (Hopfer et al., 2013), unemployment (Colman et al., 2009), and higher rates of criminality (Kjelsberg, 2002).

Child and adolescent mental health problems are common throughout the world, including in sub-Saharan Africa (SSA). According to Cortina et al. (2012), approximately 14.5% of children and youth in SSA meet criteria for general psychopathology at any given time, and that one in every ten children and adolescents in SSA has a diagnosable mental disorder. These numbers are comparable with existing data for other low- and
middle-income countries (LMIC), which have been found to range from 12% to 29% (Erskine et al., 2015) and also those from high-income countries (Costello, Egger, & Angold, 2005; Erskine et al., 2015). The evidence base, however, is relatively small; mental health research LMIC contributes only 3-6% of all published mental health research, and research on children and adolescents represents only a very small fraction of this. In order to better understand the impact of child and adolescent mental health problems in LMIC, and SSA in particular, further research is needed on the epidemiology and risk and protective factors associated with these conditions.

Despite growing recognition of the burden of mental disorders in children and adolescents, as well as the importance of mental health promotion and prevention, enormous gaps in knowledge and resources persist, particularly in LMIC settings. The inaction associated with this lack of knowledge and resource allocation has widespread consequences (Kim-Cohen et al., 2003). Failure to promote the health and well-being of children impedes basic development goals, especially considering that mental health problems in childhood strongly predict adult well-being and productivity, and constitutes ethical and moral failure to protect society’s most vulnerable (Kim-Cohen et al., 2003; Kieling et al., 2011). Urgent action is needed to both treat and prevent mental health problems in children and adolescents around the world.

Before implementing treatment and prevention programs, however, the global community must both understand the etiology of and be able to accurately measure
mental health problems in children and adolescents. Without this knowledge, treatment and prevention problems are likely to fail to improve, or worse, exacerbate mental health problems. Yet, the current evidence base for measuring and understanding mental health problems in children and adolescents heavily relies on data from and instruments created in high-income settings. In LMIC contexts, little is known about risk and protective factors for mental illness in children, and few, if any, culturally appropriate assessment tools are available. Additional research on the etiology of mental health, associated risk and protective factors, and appropriate assessment tools in LMIC settings is urgently needed.

1.2 Measuring Mental Health

1.2.1 Overview

In order to address the growing burden of mental health problems in children and adolescents, proper assessment tools must be available. To be useful, these tools should be valid, reliable, sensitive to change, comparable across groups, and meaningful to both clients and clinicians (Kwan and Rickwood, 2015). Of particular importance are reliability and validity; tools must be able to provide a consistent, coherent, trustworthy basis for drawing conclusions. Tools must also be both sensitive and specific; they should be able to differentiate between children with and without clinically significant mental health problems. Finally, tools for use in LMIC must be culturally appropriate. While certain types of mental health issues, including anxiety and depression, may be
seen across a broad range of settings, the specific way they manifest can be heavily shaped by cultural understandings, norms, and values (Ager, Robinson, and Metzler, 2015). It is critically important that tools assess symptomatology as it presents in the specific cultural setting, rather than according to guidelines developed for use in high-income, Western countries.

The process of selecting an appropriate assessment tool can be quite difficult, as a large number of assessment tools currently exist (Ager, Robinson, & Metzler, 2015). Further, available tools vary widely on many dimensions. Some measures are focused on specific clinical disorders, others on a wider range of mental health problems, and many more on broader issues of psychosocial wellbeing and functioning. Measures vary in length, ranging from long, comprehensive assessments focused on providing an overall psychosocial profile of a child, such as the Child Behavior Checklist (Achenbach, 1991), to short measures providing a single aggregate score of symptomatology related to a single construct, like the Rosenberg Self-Esteem Scale (Rosenberg, 1965; Ager, Robinson, & Metzler, 2015). Measures for use with pre-school age children older children typically rely on the child’s self-report of his or her functioning, although many scales (e.g., Child Behavior Checklist) also rely on parent and/or teacher report.

1.2.2 Assessing Mental Health in LMIC

Selecting assessment tools for use in LMIC presents even greater challenges. Currently, there remains a heavy reliance on measures originating in high-income
countries, although there is an emerging availability of local measures (Ager, Robinson, and Metzler, 2015). Measures originating in high-income countries can be used in LMIC settings, but a process of adaptation is required, as items need to be both culturally appropriate and available in the local language. Translation and back-translation are seen as a minimum requirement; broader field testing is often required to address understandability and appropriateness. Following construction and adaptation procedures, new or newly adapted assessment tools should be tested against previously validated diagnostic instruments or a clinical diagnosis by a culturally competent professional to establish criterion validity (McIntire & Miller, 2005). However, with such adjustments, existing data on reliability and validity of the measure may no longer be relevant, thus necessitating additional testing to ensure internal consistency and external validity of the adapted measure. Such adjustment also requires significant technical expertise and, often, permission from the developers of the tool, which leads many to directly use an existing measure without adaptation, leading to reduced understandability and cultural appropriateness (Ager, Robinson, and Metzler, 2015).

1.2.3 Current Assessment Tools Available for Use in LMIC

A number of child mental health instruments originally used in high-income contexts have now been translated into various languages for use in LMIC settings. For example, the Child Behavior Checklist (CBCL) is available in over 90 languages, and the Strengths and Difficulties Questionnaire (SDQ) is available in 18 (Ager, Robinson, and
Metzler, 2015). While forward translation is an excellent first step in adapting measures for use in LMICs, it is not sufficient. Direct translation of mental health instruments can often result in unclear, or even incorrect, phrasing of ideas and psychological constructs, as well as limited target language fluency (Borsa et al., 2012). Thus, a process of back-translation (translating “back” to English after initial translation procedures) is often necessary. Many instruments that have been translated have not undergone back-translation procedures, and it is therefore unclear if the translation accurately presents and captures the intended symptomatology or mental health construct (Ager, Robinson, and Metzler, 2015).

Still fewer assessment tools have undergone the aforementioned testing required to ensure understandability and cultural appropriateness. This process is time-consuming and resource-intensive, which may at least partially account for the relative dearth of research (Borsa et al., 2012). Additionally, some tools require special permission from the original developers before these tests can be performed; obtaining this permission can be prohibitively expensive (Wild et al., 2012). Many of the tools that have undergone these testing procedures are disorder-specific or have been validated for use in a very specific population or setting, and are therefore not currently available for use in other LMIC settings (Ager, Robinson, and Metzler, 2015).

In sub-Saharan Africa specifically, several measures have been translated into local languages, including Kiswahili, Chichewa, and Afrikaans, among others (Ager,
Robinson, and Metzler, 2015). However, only a small number of these measures have undergone all necessary testing procedures, and those that have are only valid for use in specific child populations (e.g., children who have experienced traumatic events) or in adults (Betancourt et al., 2009; Patel et al., 1997). For example, the CBCL, the most widely used measure for assessing overall mental health and well-being in children worldwide, is available in Kiswahili. This Kiswahili version has undergone some validity testing; a study by Harder et al. (2014) suggests that the eight syndrome structure of the CBCL is appropriate for emotional and behavioral problems as they present in Kenyan children (Harder et al., 2014). The Kiswahili version of the CBCL has not, however, undergone the full extent of necessary validation procedures, and thus it remains unclear whether the current translation is understandable and appropriate, as well as sensitive and specific.

Given the limited availability of instruments that have been successfully translated (evidenced through back-translation procedures) and deemed culturally understandable and appropriate for use in LMICs, and particularly in sub-Saharan Africa, there is a need for additional efforts in this area. This is particularly important for measures of general psychological distress such as the CBCL, which are the most widely applicable tools for measuring general child mental health (Deighton et al., 2014).
1.3 Risk and Protective Factors

1.3.1 Overview

While the development of appropriate and effective assessment tools is a necessary and positive step towards treating and preventing child and adolescent mental health problems, it is not sufficient. Because treatment and prevention programs rely heavily on a contextual understanding of the etiology of mental health problems (Whaley and Davis, 2007), it is also necessary to understand and evaluate risk and protective factors for poor mental health. This is particularly important for LMIC contexts, where risk and protective factors can present differently than in higher income settings.

Current evidence supports a multifactorial causation model for mental disorders in children and adolescents, encompassing biological, psychological, and social spheres (Patel et al., 2007). Yet, mental health interventions for children and adolescents often flow from adult clinical models that emphasize change at the individual level (Dishion & Stormshak, 2007). To accomplish long-lasting change, such services need to consider the fact that mental health issues for this population are embedded in family, peer, and sibling relationships (Repetti, Taylor, & Seeman, 2002). Family functioning is one of the most important factors in the development of mental illness in children. Families are an especially significant source of risk or protection for adolescents in high- (Dishion & Stormshak, 2007) and low-income settings (Nduwimana et al., 2016; Patel et al., 2007). In
fact, clusters of childhood adversities associated with maladaptive family functioning are most strongly associated with risk for mental disorders in children (Kessler et al., 2010).

1.3.2 Family Functioning and Mental Health

Research in both high- and low-income settings consistently suggests that families characterized by certain qualities place children and adolescents at risk for poor physical and mental health. These characteristics include overt family conflict, manifested in recurrent episodes of anger and aggression, and deficient nurturing, especially family relationships that are cold, unsupportive, and neglectful (Repetti, Taylor & Seeman, 2002).

Unsurprisingly, youth living in families with parental mental or substance use disorder, discord between parents, or marital violence are at increased risk of developing mental disorders. Children who have witnessed violence in the past year experience a wide variety of emotional difficulties and behavioral problems (Holmes, 2013). In fact, evidence overwhelmingly suggests that overt conflict and aggression in the family place children at increased risk for a wide variety of emotional and behavioral problems, including conduct disorder, delinquency and antisocial behavior, anxiety, depression, and suicide (Holmes, 2013; Artz et al., 2014). While the vast majority of research on family functioning and mental health occurs in high-income countries,
recent research from LMIC suggests that this pattern holds in low-income settings (Stein et al., 2016; Devries et al., 2017).

Parental responses to a child’s emotional expressions profoundly influence how he or she is able to process, understand, and cope with emotional distress. Parents in abusive or contentious relationships are not able to meet the needs of their children, and the quality of their parenting is compromised (Holmes, 2013). Additionally, research suggests that intimate partner violence (IPV) in the home can negatively affect the quality of attachment between parent and child, which is itself an important contributor to mental health problems in children (Bannink et al., 2013; Vasileva & Petermann, 2016). However, the presence of warm, nurturing, and supporting parenting is thought to buffer the impact of IPV exposure on child mental health (Cheng et al., 2014).

While families characterized by high levels of conflict, aggression, and hostility are often lacking in warmth, love, and peace, there is evidence that inadequate emotional nurturance is independently associated with poor mental health outcomes in children (Morris et al., 2007). Manifestations, including emotional neglect, unresponsive or rejecting parenting, lack of parental involvement in supervising or promoting the safety of the child, and experiences of alienation, detachment, or feelings of lack of acceptance by the child are associated with a broad array of mental health problems including depression, anxiety, aggression, and oppositional and delinquent behavior (Morris et al., 2007).
The mechanism by which negative family environments impact child and adolescent mental health outcomes is unclear, but current research suggests that negative family environments may create vulnerabilities or may exacerbate certain genetically-based vulnerabilities, which not only put children at immediate risk for adverse outcomes (as is the case with abuse), but lay the groundwork for long-term physical and mental health problems. Specifically, risky families create deficits in children’s control and expression of emotions and in social competence, and also lead to disturbances in physiologic and neuroendocrine system regulation that can have cumulative, long-term, adverse effects (Taylor, 2006; Wilner, 2014; Nemeroff, 2016). Taken together, these behavioral and biological consequences of risky family environments represent an integrated risk profile that is associated with mental health disorders across the lifespan.

While a negative family environment places children and adolescents at risk for the development of mental health problems, a positive and warm family environment can protect against these conditions. In healthy families, children learn that they can count on their family environment to provide for their emotional security and their physical safety and well-being, and they acquire behaviors that will eventually allow them to maintain their own physical and emotional health independent of caregivers (Repetti, Taylor and Seeman, 2002). From this vantage point, a healthy environment for a child is a safe environment - it provides for a sense of emotional security and social
integration and it offers certain critical social experiences that lead to the acquisition of behaviors that will eventually permit the child to engage in effective self-regulation (Nemeroff, 2016).

Longitudinal studies have also identified parent-adolescent attachment and relationship quality as important protective factors for mental health problems, suggesting that parent-child attachment serves to buffer the impact of stressful life events on mental health, both in high-income (Soenens et al., 2016; Boldt et al., 2014) and low-income (Betancourt and Khan, 2008) settings. Research in low-income countries, however, is limited, and is often conducted in the context of conflict or humanitarian emergencies. Warm parent-child interactions have been shown to promote positive development; nurturing, involved parenting predicts positive adjustment and higher levels of self-confidence, as well as lower levels of antisocial behavior and emotional distress. Warm, supportive parent-child relationships have been found to function as a protective factor even if another family member has a diagnosed mental health problem or the family is subject to economic distress (Betancourt and Khan, 2008).

Research has documented that these patterns hold in Kenya – adolescents in families with high levels of conflict, distant and unsupportive relationships, and poor communication are at high risk for negative physical and mental health outcomes, while adolescents in supportive families are at reduced risk (Puffer et al., 2011).
1.4 Current Study

Given the aforementioned global burden of mental health disorders in children and adolescents, as well as the gap in knowledge and research regarding mental health assessment and the etiology of mental health problems in LMIC settings, our study sought to establish an evidence base for understanding, measuring, and predicting mental health problems in Kenyan children. This is realized through the exploration of two specific aims:

- **AIM 1**: Evaluate a set of survey items, including items from standardized measures and locally developed items, to identify those that best differentiate between children with and without mental health problems.

- **AIM 2**: Identify and explore important family-level risk and protective factors for poor mental health in Kenyan children and adolescents.

The data for this study were drawn from a larger project (Tuko Pamoja – “We Are Together”) carried out by researchers from Duke University and Moi University in collaboration with AMPATH, the Academic Model for Providing Access to Health Care, a partnership between Moi University, Moi Teaching and Referral Hospital (MTRH) and a consortium of North American academic medical centers. One study within the overarching project aims to develop and establish the validity of culturally-appropriate
assessment tools for family functioning and individual mental health. The current study utilized a subset of data from this study.
2. Methods

2.1 Current Study: Setting

The current study was carried out in the area surrounding Eldoret, the largest city in the Rift Valley Province of Kenya. Home to almost 400,000 people, Eldoret is the fifth largest urban center in Kenya and the fastest growing city in the country (Kenya Information Guide, 2015). Eldoret is surrounded by prime agricultural land and acts as a trading center for the surrounding Uasin Gishu county economy. The city is also a local manufacturing hub, home to a number of nationally recognized textile and processing factories (Uasin Gishu County, 2017). The surrounding area has high ethnic variability, with large Kikuyu, Kalenjin, Kisii, Luhya, and Luo populations. Moi University and Moi Teaching and Referral Hospital, the only national medical school and referral hospital outside of Nairobi, are located in Eldoret, making the city an academic and medical hub.

Specifically, the study was conducted in two locations just outside Eldoret town limits. The first, Kipkaren, is an urban slum in the larger Langas slum just outside Eldoret proper, and is characterized by adjoining mud and tin dwellings. Residents are from varied tribal backgrounds, and are generally day laborers or own small shops selling maize or other vegetables. The second location, Kipkenyo, is a semi-rural area located 10 km outside the city center. The majority of the population are subsistence farmers, though some residents commute to Eldoret for work. Like Kipkaren, Kipkenyo
is home to individuals of varied backgrounds, though the majority of the population belongs to the Kalenjin tribe.

2.2 Measures

Two separate but related assessment tools, a survey and a semi-structured interview, were used in this study. Both instruments were informed by a qualitative study completed in Eldoret and Webuye, Kenya in 2013, which explored the cultural definition of family well-being and family functioning, as well as cultural perceptions of emotional and behavioral health.

2.2.1 Survey

The activities in the earlier qualitative study resulted in the creation of a large bank of survey items measuring child mental health. Items were drawn from two validated measures, the Child Behavior Checklist (CBCL) and the Youth Self-Report (YSR) (Achenbach, 1991); if no existing item was found to match a specific cultural indicator of child mental health identified as important through the qualitative research, one or more new items were written and formatted to match the question style of an existing similar measure.

The measures from which included survey items were taken are detailed below. Measures beginning with “TP” (abbreviation for Tuko Pamoja, the overall project) indicate that no relevant items currently existed, and thus that the items were created by the research team.
• Child Behavior Checklist – Caregiver Report (CBCL) (Achenbach, 1991)
  *(Subset of 20 items comprising Brief Problem Monitor) (Achenbach et al., 2011)*
• Youth Self-Report (YSR) (Achenbach, 1991)
  *(Subset of 21 items comprising Brief Problem Monitor) (Achenbach et al., 2011)*
  *Note one additional item compared to CBCL because CBCL 17 was not understood by adult participants.*
• TP child mental health Items – Caregiver Report
  *(Subset of 6 locally developed items)*
• TP child mental health Items – Child Self-Report
  *(Subset of 6 locally developed items)*

The Child Behavior Checklist (CBCL) is a parent-report instrument measuring psychopathology in children. It was developed by Thomas Achenbach as part of the Achenbach System of Empirically Based Assessment (ASEBA) package of assessment tools and is one of the most widely-used standardized measures in child psychology for evaluating maladaptive behavior and emotional problems in children ages 6-18 (Achenbach, 1991. The CBCL measures internalizing (i.e., anxious, depressive, withdrawn) and externalizing (i.e., aggressive, hyperactive, noncompliant) behaviors, and also contains eight empirically-based syndrome scales: anxious/depressed, withdrawn/depressed, somatic complaints, rule-breaking behavior, aggressive behavior, social problems, thought problems, and attention problems (Achenbach 1991). The Child Behavior Checklist - Youth Self-Report scale (YSR), another ASEBA instrument, mirrors the CBCL, with two significant differences. While the CBCL asks questions of parents or other caregivers, the YSR is a self-report measure administered to children directly. Additionally, while the CBCL is standardized for children between the ages of 6 and 18, the YSR is used only with children ages 11 to 18, in order to ensure that subjects are able
to read and understand all items. CBCL and YSR items are answered on a three-point Likert scale ($0 = \text{not true}$, $1 = \text{somewhat or sometimes true}$, or $2 = \text{very true or always true}$), and individual item scores are added to create a composite score. Items with positive valence are reverse scored before inclusion in sum scores (Achenbach, 1991).

For this study, only a subset of CBCL/YSR items were included in the larger survey due to time and resource constraints and the goal of identifying small subsets of items feasible in future work. The items chosen for the survey comprise the Brief Problem Monitor (BPM) (Achenbach et al., 2011). The BPM was created by the developers of the CBCL and YSR, and also measures internalizing and externalizing problems. However, this measure is designed to be completed in just 1-2 minutes and includes only the most salient items for each construct, as determined by factor analysis and the application of item response theory (Piper et al., 2014). Items are numbered according to their position in the full CBCL/YSR.

Twelve items (six each for caregivers and children) were created by the research team to accompany the validated items. These items were created because several cultural indicators of well-being that emerged in the prior qualitative research are not assessed in the CBCL/YSR. Two items were added to assess positive emotional and behavioral well-being, as the BPM includes only items with negative valence. The remaining four items were created in order to capture severe behavior problems as they present in the Kenyan context. They assess the following culturally relevant behavior
problems: running away from home, drinking alcohol, using drugs, and breaking the law. Local items are also rated $0 = \text{not true}$, $1 = \text{somewhat or sometimes true}$, or $2 = \text{very true or always true}$; items with positive valence are reverse scored. Included items are detailed in Table 1. Parallel versions were asked to caregivers and children for all items except CBCL/YSR 17, related to “daydreaming”; the caregiver version of this item was dropped during the cognitive interviewing process because it was repeatedly misunderstood, even with several modifications to the translation.

**Table 1: Child Mental Health Survey Items**

<table>
<thead>
<tr>
<th>Item</th>
<th>Caregiver Version</th>
<th>Child Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBCL/YSR 1</td>
<td>Do they act younger than their age?</td>
<td>Do you act too young for your age?</td>
</tr>
<tr>
<td>CBCL/YSR 3</td>
<td>Do they argue a lot?</td>
<td>Do you argue a lot?</td>
</tr>
<tr>
<td>CBCL/YSR 4</td>
<td>Are they usually unable to finish things that they start?</td>
<td>Do you fail to finish things that you start?</td>
</tr>
<tr>
<td>CBCL/YSR 8</td>
<td>Are they usually unable to concentrate, or can’t pay attention for long when they are told something?</td>
<td>Do you have trouble concentrating or paying attention?</td>
</tr>
<tr>
<td>CBCL/YSR 10</td>
<td>Are they unable to sit calmly or rest even a bit, or do they have more energy than normal?</td>
<td>Can you relax?</td>
</tr>
<tr>
<td>CBCL/YSR 20</td>
<td>Do they destroy their things?</td>
<td>Do you destroy your own things?</td>
</tr>
<tr>
<td>CBCL/YSR 22</td>
<td>Do they lack respect at home?</td>
<td>Do you disobey your parents?</td>
</tr>
<tr>
<td>CBCL/YSR 23</td>
<td>Do they lack respect at school?</td>
<td>Do you not follow rules at school?</td>
</tr>
<tr>
<td>CBCL/YSR 35</td>
<td>Do they feel like they are nothing or valueless?</td>
<td>Do you feel worthless or inferior?</td>
</tr>
<tr>
<td>CBCL/YSR 41</td>
<td>Do they do things without thinking?</td>
<td>Do you act without stopping to think?</td>
</tr>
<tr>
<td>CBCL/YSR 50</td>
<td>Do they have fear or worry?</td>
<td>Are you too fearful or anxious?</td>
</tr>
<tr>
<td>CBCL/YSR 52</td>
<td>Do they feel a lot like they are the cause of problems, more than they should?</td>
<td>Do you feel too guilty?</td>
</tr>
<tr>
<td>CBCL/YSR 71</td>
<td>Are they self-conscious or do they get embarrassed easily?</td>
<td>Are you self-conscious or easily embarrassed?</td>
</tr>
<tr>
<td>CBCL/YSR 78</td>
<td>Do they lack concentration or are they easily distracted?</td>
<td>Do you not follow instructions?</td>
</tr>
<tr>
<td>CBCL/YSR 86</td>
<td>Are they troublesome or annoying?</td>
<td>Are you stubborn?</td>
</tr>
<tr>
<td>CBCL/YSR 91</td>
<td>Do they talk about committing suicide?</td>
<td>Do you think about killing yourself?</td>
</tr>
<tr>
<td>CBCL/YSR 95</td>
<td>Do they have a hot temper?</td>
<td>Do you get angry so fast?</td>
</tr>
<tr>
<td>CBCL/YSR 97</td>
<td>Do they threaten people?</td>
<td>Do you threaten to hurt people?</td>
</tr>
<tr>
<td>CBCL/YSR 103</td>
<td>Are they unhappy, sad, or depressed?</td>
<td>Are you unhappy, sad, or depressed?</td>
</tr>
<tr>
<td>CBCL/YSR 112</td>
<td>Do they worry?</td>
<td>Do you worry a lot?</td>
</tr>
<tr>
<td>CBCL/YSR 17</td>
<td>N/A (Did not pass CI process)</td>
<td>Do you daydream?</td>
</tr>
<tr>
<td>TPMHCh/Cg 20</td>
<td>Do you feel they are bright and clever?</td>
<td>Do you feel you are bright and clever?</td>
</tr>
<tr>
<td>TPMHCh/Cg 21</td>
<td>Do they feel free and jovial?</td>
<td>Do you feel free and jovial?</td>
</tr>
<tr>
<td>TPMHCh/Cg 30</td>
<td>How often does your child run away from home?</td>
<td>How many times do you run away from home?</td>
</tr>
<tr>
<td>TPMHCh/Cg 31</td>
<td>How often does your child have a drink containing alcohol?</td>
<td>How many times do you drink beverages that have alcohol?</td>
</tr>
<tr>
<td>TPMHCh/Cg 32</td>
<td>How often does your child use hard drugs other than alcohol?</td>
<td>How many times do you use mind altering drugs apart from alcohol?</td>
</tr>
<tr>
<td>TPMHCh/Cg 33</td>
<td>How often does your child get in trouble with the law? For example, being arrested or put in jail.</td>
<td>How many times have you found yourself in a problem with the law? For example, being caught or jailed?</td>
</tr>
</tbody>
</table>

Once gathered, all survey items underwent the first phase of validation, consisting of translation, back-translation, and cognitive interviewing procedures to identify a set of items for each construct that were understandable, answerable, and culturally appropriate. First, survey items were translated to Kiswahili and back translated using culturally relevant translation procedures (Kohrt et al., 2011). This translation process was completed by pairs or trios of research volunteers in Eldore, and prioritized the aforementioned ideas over a direct translation to ensure that the final versions of survey items are the closest measure of a construct possible.

Once survey items were translated, they were tested with three study participants from the community using cognitive interviewing to ensure understanding and cultural appropriateness. This process assessed whether the current translation of the item is understandable, acceptable, relevant, and complete. Most questions were
tested fully with two participants in Eldoret and with a third participant in Webuye, a rural area outside of Eldoret proper. Following cognitive interviewing, final versions of items were approved by a Kenyan expert holding a higher degree in psychology or psychiatry. Experts reviewed each item for the same culturally relevant qualities and made content changes based upon their extensive understanding of families and mental health in the Kenyan context. If the panel made changes to items, these items again underwent the cognitive interview process with study participants. New versions were then again reviewed by the expert panel until all items were approved by three participants and all experts. Final versions were incorporated into the survey items bank, with a future goal of identifying the smallest subset of items that accurately and completely measure each construct (Aim 1).

2.2.2 Interview

The semi-structured interview guide used in this study is based on the Global Assessment of Relational Functioning Scale, or GARF (DSM-IV, 1994; Dausch, 2006). The GARF is believed to give a global assessment of relationship functioning in regards to families from an observer’s (e.g., therapist) perspective (Ashcraft, 1997). This measure was constructed for easy administration in various settings, such as emergency rooms, clinics, and a number of service agencies, and can be used by both professionals and paraprofessionals (Kaslow, 1993). The GARF allows the observing clinician to rate the
family in regards to meeting or not meeting the affective or instrumental needs of the family (DSM-IV, 1994).

The GARF was adapted for use in the study context in a variety of ways. First, in order to create a culturally appropriate and relevant version of the GARF, the descriptions of the domains of family functioning were revised and expanded to reflect the salient aspects of family functioning that emerged in the qualitative data.

Second, while the original measure is only a rating scale that can be applied to sources of information including interviews, phone calls with nuclear or extended family members, questionnaires, physician notes, and hospital records, the culturally adapted version accompanies a semi-structured interview guide developed by the research team. Standardized guides functioned to ensure ratings were based on complete and accurate depictions of the family environment in the absence of additional information about the family. Interview guides were structured so as to parallel constructs evaluated by the GARF, in order to obtain information about all measured constructs – family structure, organization, and roles; family emotional climate; and family problem solving and conflict resolution. Once created, the guide was translated to Kiswahili and back-translated by a team of researchers from Duke University and Moi University. Key construct phrases such as “family functioning,” “psychological health,” and “behavior” were also considered and modified based on translation feedback from parallel survey items undergoing cognitive interviewing.
Third, the GARF rating scale and interview guide were expanded to include measures of the couples’ relationship, parent-child relationships, and individual mental health. Question development was informed by the aforementioned qualitative research, focusing on the most common and broadly encompassing terms used for mental health in the study context. Local conceptualizations of the measured constructs were also considered in question development.

The current semi-structured interview assesses seven overarching domains. Within these domains are twenty subdomains, and each subdomain is further broken down into its component parts. Table 2 details the domains, subdomains, and components assessed in the semi-structured interview. The “Child Well-Being” domain is used in analysis related to Aim 1, and all domains are used during analysis for Aim 2. Final versions of the caregiver and child interview guides can be found in Appendices A and B.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Sub-Domain</th>
<th>Definition</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Functioning</td>
<td>Structure, Organization, and Roles</td>
<td>The way a family organizes itself to accomplish demands of life</td>
<td>Routines; structure and organization; roles and responsibilities; boundaries, hierarchies and alliances</td>
</tr>
<tr>
<td></td>
<td>Emotional Climate</td>
<td>Types and levels of feelings and emotions that exist among and between family members, as well as the shared values within the family</td>
<td>Positive emotions (warmth, caring, peace); negative emotions (tension, frustration, anger, hostility, distance); unified and shared values</td>
</tr>
<tr>
<td><strong>Couples Relationship</strong></td>
<td><strong>Problem Solving</strong></td>
<td>How the family members work together to make decisions and solve problems, as well as who is involved and satisfaction with the process</td>
<td>System for decision making; problem solving; conflicts and conflict resolution; adaptation to stressful circumstances</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------------</td>
<td>----------------------------------------------------------------</td>
<td>----------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Communication and Problem Solving</strong></td>
<td><strong>Conflict Resolution</strong></td>
<td>How well a couple shares information and ideas with each other, as well as how the couple responds to a problem.</td>
<td>Quality and frequency of communication; problem solving; satisfaction</td>
</tr>
<tr>
<td><strong>Parenting Teamwork</strong></td>
<td><strong>Emotional Closeness</strong></td>
<td>How well the couple works together to provide care and discipline for children</td>
<td>Consistency; support; perception of spouse as a caregiver; satisfaction</td>
</tr>
<tr>
<td><strong>Parent-Child Relationship</strong></td>
<td><strong>Communication and Time Together</strong></td>
<td>How much and how well the child and caregiver talk, as well as the amount and quality of time spent together</td>
<td>Frequency and quality of time together; frequency and quality of communication</td>
</tr>
<tr>
<td><strong>Emotional Closeness</strong></td>
<td><strong>Emotional Closeness</strong></td>
<td>Emotional aspect of the marital relationship</td>
<td>Positive emotions (warmth, love, connection); negative emotions (tension, distance); trust; quality of sexual relationship; satisfaction</td>
</tr>
<tr>
<td><strong>Discipline Strategies and Harsh Treatment</strong></td>
<td><strong>Emotional Closeness</strong></td>
<td>How well the parent disciplines the child</td>
<td>Positive discipline strategies (verbal advising, restricting privileges, mild physical discipline); negative discipline strategies (harsh physical or verbal discipline; inappropriate restrictions; sending child out of house); harsh treatment; effectiveness of discipline</td>
</tr>
</tbody>
</table>
### Consistency of Effort to Provide and Promote Safety

<table>
<thead>
<tr>
<th>Consistency of Effort to Provide and Promote Safety</th>
<th>How much the caregiver is trying to provide for the child</th>
<th>Provision for basic needs; consistent effort to provide access to education; attempts to keep the child from harm; frequency and consistency of these efforts</th>
</tr>
</thead>
</table>

*Does not consider financial ability to provide, only effort*

### Caregiver Well-Being

<table>
<thead>
<tr>
<th>Caregiver Well-Being</th>
<th>Emotional Health</th>
<th>Emotional health and well-being</th>
<th>Mood; stress; sadness; “thinking too much;” other bad feelings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral Health</td>
<td>Presence of bad behaviors</td>
<td>Fighting; using alcohol or drugs; breaking rules or the law</td>
<td></td>
</tr>
<tr>
<td>Daily Functioning</td>
<td>Ability to complete normal daily activities</td>
<td>Daily work; getting along with others; enjoying things</td>
<td></td>
</tr>
</tbody>
</table>

### Child Well-Being

<table>
<thead>
<tr>
<th>Child Well-Being</th>
<th>Emotional Health</th>
<th>Emotional health and well-being</th>
<th>Mood; stress; sadness; “thinking too much;” other bad feelings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral Health</td>
<td>Presence of bad behaviors</td>
<td>Fighting; using alcohol or drugs; breaking rules or the law; defiant or oppositional behavior</td>
<td></td>
</tr>
<tr>
<td>Daily Functioning</td>
<td>Ability to complete normal daily activities</td>
<td>Daily work; school performance; getting along with others; enjoying things</td>
<td></td>
</tr>
</tbody>
</table>

### 2.2.3 Constructs of Interest

The primary construct of interest in this study is child mental health. This construct is measured using both survey and interview methodology, and is utilized in both the measures validation arm of the study (Aim 1) and the predictive exploration arm (Aim 2). Additional variables explored in the second arm of the study include measures of overall family functioning, dyadic relationship quality, and caregiver well-being.
2.3 Participants

2.3.1 Demographics

The target population for this study consists of Kenyan families living in either Kipkaren or Kipkenyo with children between the ages of 8 and 17. Within each family, at least one child and 1-2 primary caregivers were recruited to participate.

2.3.2 Recruitment

Participants were recruited in collaboration with community leaders, including religious leaders, community counselors, and community health volunteers. Leaders were identified by study staff in collaboration with other AMPATH and community health programs. Leaders approached in May 2016, at which time they were asked to provide a list of families in their community whom they believed were doing poorly, as defined by being in immediate need of family counseling, or were doing very well, defined as not needing family counseling.

Before providing family information to the research team, each leader met with the families on his or her list. The purpose of this visit was to present basic information about the study and to ask whether the family was interested in learning more about participating. Participants who did not express interest were not contacted and their information was never shared with the research team; information for families that did express interest was provided to the research team. During home visits, the leader also helped the family select a “target” child. Any child between the ages of 8 and 17 was
eligible to be selected as the target child. However, priority as given to children with emotional or behavioral problems, or children about whom the parents have concerns. If no child met these criteria, the child with the next birthday was chosen.

For interested families, leaders were also asked to provide a rating for each family on a scale of 1-4, with 1 meaning the family is functioning very poorly and 4 meaning the family is functioning very well. This procedure was put in place as part of the larger study in order to inform future validation of family functioning survey items. Families were selected for inclusion in the study based on perceived accuracy of leader rating, and to create a heterogeneous sample based on the following characteristics: functioning rating, area of residence, religious affiliation, target child age, and target child gender. Priority was given to families with a rating of 1 or 4 in order to increase confidence that the sample included families from both ends of the spectrum of functioning.

2.4 Procedures
2.4.1 IRB Approval and Informed Consent

Informed consent was obtained from all adult participants before beginning data collection. Verbal assent and adult consent were obtained for all child participants. Study procedures were approved by the Institutional Review Board at Duke University and the Institutional Research Ethic Committee at Moi University College of Health Sciences and Moi Teaching and Referral Hospital.
2.4.2 Data Collection

2.4.2.1 Overview

Data collection occurred between June 2016 and March 2017. Data collection took place during data collection “events” – full days dedicated to data collection – and follow-up home visits. Follow-up visits were scheduled if individual members or families were not able to complete all activities during a data collection event. Within a family, the target child and his or her primary caregiver(s) were invited to attend data collection events and enrolled in the study. Two caregivers were enrolled when possible; a single caregiver was enrolled for families where only one adult resided in the household (e.g., families with widowed mothers). Data collection events primarily took place on Saturdays, as children are not in school and caregivers generally have fewer work obligations, and were held at open community locations (e.g., schools or community centers). Events were organized and run by Kenyan study staff. Participants were given lunch and a snack. They are also given a small financial token of appreciation – 100 KSh per person – at the end of their participation in data collection. If the family chose to leave the study at any time, they received payment proportional to the number of individuals who completed all study activities.

2.4.2.2 Activities

Each participant in the study completed both a survey and a semi-structured interview. Approximately half of the study participants began with the survey, while the
other half began with the semi-structured interview, in order to minimize fatigue-related biases.

Surveys were administered by trained volunteer enumerators and conducted on Android tablets using ODK Collect survey administration software. Children and adults were administered separate versions of the survey; both versions required 2.5-3 hours to complete. Questions and answer choices were read to participants in their choice of English or Kiswahili, and answers were entered into the tablet by the enumerator. Surveys were conducted in a separate room or isolated area to ensure participant privacy.

Interviews were conducted by five interviewers, each with prior experiences related to psychosocial service provision or counseling in local communities. All interviewers received two weeks of in-person interview training and two refresher trainings during the course of the project. When possible, the same interviewer conducted interviews with all members of a family to facilitate probing about any contradictory information. Only one interviewer met with each participant at any one time, so as not to bias results and to maximize participant comfort. During the interview, the interviewer recorded notes directly onto the guide in detail and in English. Interviews were also recorded using a voice recorder, and later transcribed in English. Each interview lasted approximately one hour, and all interviews were conducted in a separate room or isolated area to maintain participant privacy.
2.5 Analysis

2.5.1 Overview

Data analysis was completed in three phases. Figure 1 provides a visual summary of the analysis process detailed in this section. First, data were prepared for analysis. Survey data were cleaned and scored using Stata/SE 14.0, and interviews were both rated numerically and coded for qualitative analysis using NVivo 11.4.0. These processes prepared the data for analyses related to the main study aims - to identify survey items to assess mental health (Aim 1) and to explore family-level influences on child mental health (Aim 2).
Figure 1: Visual Summary of Data Analysis Procedures
2.5.2 Data Preparation

2.5.2.1 Survey Scoring

All child mental health survey items are answered on a three-point Likert scale (not true, somewhat or sometimes true, or very true or always true). An answer of “not true” corresponds to no endorsement of the symptom of interest, while an answer of “very true or always true” corresponds to high endorsement of the symptom. Using Stata 14.0 statistical analysis software, responses to these items were coded numerically such that 0 = not true, 1 = somewhat or sometimes true, and 2 = very true or always true. Items with positive valence were reverse scored such that higher scores on all items signify greater endorsement of that symptom and poorer mental health.

2.5.2.2 Interview Rating

When all enrolled members of a family completed individual interviews, their interview recordings were transcribed and translated into English by study staff. Through a series of individual ratings and consensus decisions (Fig 1), transcripts were then used to assign numerical values (“ratings”) to each family’s overall functioning, dyadic relationship (couple, parent-child) functioning, and individual mental health. Child mental health ratings were then used to assign each child in the study a label of “case” or “non-case,” indicating the presence and absence of mental health problems, respectively, to facilitate later analysis.
2.5.2.2.1 Rating Procedures

Interview ratings were determined by six members of the research team. The student researcher, principal investigator, and two additional American team members rated each family; the primary interviewer and a supervising member of the Kenyan team also completed ratings. American team members rated from transcripts, while Kenyan team members rated from their choice of interview recordings (in Kiswahili) or interview transcripts (in English).

Ratings were finalized through a series of individual ratings and consensus decisions. First, each rater completed an individual rating based solely on his or her understanding and interpretation of the family gleaned from the interview recordings and/or transcripts. Accounts from all family members were considered equally in all ratings. After individual ratings were completed, each team (American and Kenyan) met to come to a team-wide consensus rating. Lastly, American and Kenyan teams met via Skype to come to a final consensus rating for each family.

2.6.2.2.2 Interview Mental Health Ratings (AIM 1 and 2)

Individual mental health ratings assessed both emotional and behavioral health with two separate numerical ratings. Each of these domains was rated on a scale from 1 to 4, with 1 = very poor and 4 = excellent.

Emotional health ratings consider mood, feelings, stress, sadness, “thinking too much” – a culturally relevant symptom of emotional distress – and other negative feelings. Individuals with a rating of 1 are considered to have severe emotional distress,
and generally exhibit symptoms meeting threshold levels for clinical anxiety and/or depression. These individuals often experience severe functional impairment related to their emotional distress. Individuals with an emotional health rating of 2 exhibit symptoms of emotional distress, but these symptoms are less severe and/or less impairing than those experienced by individuals rated a 1. Participants with an emotional health rating of 3 experience some emotional distress, but this distress is not severe and generally does not impact daily functioning. Individuals with an emotional health of 4 are considered to have excellent emotional health and to have no symptoms.

Behavioral health ratings consider the presence of negative or maladaptive behavior, including fighting, using alcohol or drugs, and breaking rules or the law. Individuals with a behavioral health rating of 1 are considered to have severely negative behavior, and have impairments in daily functioning and/or difficulty in relationships because of this behavior. Those with a behavioral health rating of 2 have poor behavior that may impact functioning, but behaviors are not as severe or do not affect daily life as much as those for individuals with a rating of 1. Individuals with a behavioral health rating of 3 may have some negative behaviors, but these behaviors do not generally meet threshold levels for behavioral problems, and do not cause significant functional impairment. Individuals with a behavioral health rating of 4 report no negative behaviors.
2.5.2.2.3 Family and Dyadic Relationship Ratings (AIM 2)

Table 3 presents a description of the numerical ratings system for the main domains of functioning. Overall family and dyadic relationship domains were rated according to the Global Assessment of Relational Functioning (GARF) rating scale, which assigns each domain a numerical rating between 0 and 100, where 0 = most dysfunctional and 100 = most functional, and a corresponding categorical rating of most functional (81-100), somewhat functional (61-80), somewhat dysfunctional (41-60), critically dysfunctional (21-40), or most dysfunctional (0-20).

Each subdomain (See Table 2 for list; e.g., structure, emotional climate, and problem solving within family functioning) within a larger domain was also rated categorically from most functional to most dysfunctional, though not assigned a specific number 0-100. For the purpose of this study, numerical scores corresponding to the midpoint of each category (e.g., 90 for most functional, 70 for somewhat functional, etc.) were assigned to each subdomain. To determine the overall domain ratings, the subdomain categorizations were considered in combination with clinical judgment related to how those aspects of the relationship combined for overall level of functioning.
Table 3: Description of Families and Dyadic Relationships Falling in Each Rating Category

<table>
<thead>
<tr>
<th>Domain</th>
<th>Most Functional (81-100)</th>
<th>Somewhat Functional (61-80)</th>
<th>Somewhat Dysfunctional (41-60)</th>
<th>Critically Dysfunctional (21-40)</th>
<th>Most Dysfunctional (0-20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Family Functioning</td>
<td>The families are the very highest functioning, with the fewest problems and most positive aspects. They do not have any problems that are causing family members significant distress.</td>
<td>These families have many positive aspects, but have noticeable problems that cause some distress. These families still have more positive than negative aspects, and are still in the top half of all families.</td>
<td>These families have more negative than positive aspects to their family functioning, though there are still some positives. Their problems are significant and cause distress.</td>
<td>These families have very serious problems across most aspects of their family life. They have many more negative aspects than positive; usually any positive aspects of overshadowed by the serious problems.</td>
<td>These families have extremely severe problems across all, or almost all, aspects of their functioning. There are so many negative aspects that any small positive aspects are almost completely overshadowed.</td>
</tr>
<tr>
<td>Dyadic Relationship Functioning (Couple, Parent-Child)</td>
<td>The dyad is doing very well, with high satisfaction. Overall, very positive with no notable problems or distress.</td>
<td>The dyad has some difficulties that cause relatively small amounts of distress. There are more positive than negative aspects, and the relationship is overall positive despite the presence of problems.</td>
<td>The dyad has problems that cause significant distress, though the problems and distress are not severe. There are still some positives, but more negatives than positives.</td>
<td>The dyad has serious problems that are causing significant distress. There are many more negatives than positives, and usually any positive aspects are overshadowed by the serious problems.</td>
<td>The dyad has extremely severe problems that are causing extreme distress. There are almost no positives. There are so many negative aspects that any small positives are completely overshadowed by the negative.</td>
</tr>
</tbody>
</table>
2.5.3 Data Analysis

2.5.3.1 Identification of Mental Health Cases and Non-Cases (AIM 1 and 2)

Individual mental health (emotional and behavioral) scores were used to assign each child in the study the label of either “case” or “non-case.” Cases were defined as any child with a rating of 1 or 2 for emotional health and/or behavioral health; therefore, some had problems in both domains and others in one or the other. Non-cases were defined as any child with a rating of 3 or 4 for both emotional and behavioral health domains.

2.5.3.2 Item Analysis (AIM 1)

The overarching goal of Aim 1 was to identify which survey items best discriminate between cases (i.e., having mental health problems) and non-cases as determined by semi-structured interview ratings, considered to be the gold standard in this study. To achieve this goal, we adopted an approach to item analysis used in the development of the General Health Questionnaire (Goldberg, 1972). All survey items were answered on a three-point response scale ranging from 0 to 2; higher scores represent greater presence of the symptom of interest and poorer mental health. We considered endorsement of a survey item to be any response of either one or two for that item. For each item, we calculated the proportion of cases and non-cases who endorsed the item. We then subtracted the proportion of endorsement among non-cases from the proportion of endorsement among cases, resulting in a gradient score. Items that do a
better job discriminating between cases and non-cases have higher gradient scores. Negative gradient scores indicate that a higher proportion of non-cases compared to cases endorsed the item. Successful items were defined as those with a gradient score > 0.05, endorsed by > 25% of cases, and endorsed by < 25% of non-cases. Parallel analyses were conducted for each reporter (child, male caregiver, female caregiver). We also conducted an analysis for male and female caregivers together; to do this, we assumed male and caregiver reports to be independent, which functionally doubled the number of cases and non-cases in the study. We then added the number of endorsements for male and female caregivers together, and calculated gradient scores as described.

2.5.3.3 Examination of Risk and Protective Factors (AIM 2)

For Aim 2, we sought explore and understand the relationships between hypothesized risk and protective factors (e.g., family functioning, dyadic relationship functioning, etc.) and child mental health outcomes, detailed in Figure 2. To do this, we employed a mixed-methods approach.
Figure 2: Relationships Between Family-Level Influences and Child Mental Health
2.5.3.3.1 Quantitative: Mean Comparisons of Cases versus Non-Cases

First, we used effect size analysis to statistically evaluate differences in numerical scores on family-level variables between cases and non-cases. Effect sizes were chosen over significance tests for the analysis of between-group differences due to the small sample size. We calculated mean scores for all predictor variables by case status, and used these means to calculate a Cohen’s $d$ effect size, the standardized difference in means between the two groups, for each predictor. Effect sizes were interpreted as the average percentile standing for cases relative to that for non-cases (Cohen, 1988). For example, an effect size of 0.8 indicates that the score of the average case is 0.8 standard deviations above the score for the average non-case on that variable. We defined small, medium, and large effects as 0.20, 0.50, and 0.80, respectively, following standards outlined by Cohen (1988).

2.5.3.3.2 Qualitative: Thematic Analysis

While effect size analysis may indicate whether domain scores are significantly different between cases and non-cases, it does not examine specific components of that domain that may account for the observed differences. For example, while effect size analysis may show that cases and non-cases differ greatly in scores on family structure, it does not identify specific dynamics related to family structure (e.g., role confusion, inappropriate hierarchy, etc.) that account for the observed overall difference. Therefore, we also employed qualitative methods to explore relationships between predictor
variables and mental health outcomes in order to identify specific components of larger domains that are important contributors to observed differences between groups.

All interview transcripts were coded in NVivo 11.4.0 using codes developed via deductive techniques. Descriptions of all codes can be found in the study codebook (Appendix D). Codes were selected to directly parallel the domains and subdomains assessed according to the interview guides (Appendices A and B).

Interviews were coded at the subdomain level, and then collated under larger domain headings. A subset of interviews was coded independently by two members of the research team until inter-coder reliability (greater than 80% agreement) was established, after which interviewers were coded only once. Transcripts were then analyzed using thematic analysis in order to identify and extract specific themes within larger domains that emerged as differences between cases and non-cases that may explain observed differences in numerical scores.

3. Results

3.1 Participant Characteristics

Twenty-two families were enrolled in the study. Through the semi-structured interview rating process detailed above, ten were identified as cases and twelve were identified as non-cases. Of the cases, four were rated as having an emotional problem only, three were rated as having a behavior problem only, and three were rated as having both an emotional and a behavioral problem.
Demographic characteristics of the sample by case status are detailed in Table 4. Only partial data were obtained for the families of two cases; the male caregiver in each of these families was unable to be located for follow-up. While cases and non-cases were relatively similar overall, there were several notable differences. Cases were 60% male while non-cases were primarily (67%) female. All cases attended day school except one child on leave due to a lack of school fees; three non-cases (25%) were enrolled in a boarding school. Almost all cases (90%) resided in Kipkaren, a peri-urban slum adjacent to the Eldoret proper, compared to only 50% of non-cases. Non-cases were equally divided between Kipkaren and Kipkenyo. Families of non-cases earned almost 1000 Kenyan Shilling (KSh; equivalent to approximately 10 USD) more each week than families of cases.
Table 4: Participant Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Cases (n = 10)</th>
<th>Non-Cases (n = 12)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>13 (1)</td>
<td>12 (6)</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Female</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td><strong>School Attended</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Boarding</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Not Attending</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Residence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kipkaren</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Kipkenyo</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td><strong>Household Size</strong></td>
<td>6 (0.75)</td>
<td>5 (4)</td>
</tr>
<tr>
<td><strong>Number of Caregivers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td><strong>Tribal Affiliation</strong></td>
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<tr>
<td>Kikuyu</td>
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<td>1</td>
</tr>
<tr>
<td>Kalenjin</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Luhya</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Luo</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Kisii</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>No Response</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td><strong>Religious Affiliation</strong></td>
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<td></td>
</tr>
<tr>
<td>Catholic</td>
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<td>2</td>
</tr>
<tr>
<td>Pentecostal</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Muslim</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>No Response</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td><strong>Weekly Household Income (KSh)</strong></td>
<td>550 (212.5)</td>
<td>1500 (2500)</td>
</tr>
</tbody>
</table>

*Median (IQR)
3.2 Item Analysis (Aim 1)

Item analysis describes the extent to which mental health survey items discriminate between cases and non-cases. Because child mental health is reported on by children, female caregivers, and male caregivers individually, we ran separate analyses for each reporter, and for male and female caregivers combined. These results are displayed in Figures 3-6 below. Each plot shows gradient scores for all child mental health items (see Table 1), which correspond to the difference in proportion endorsement between cases and non-cases. The larger the gradient score, the greater the difference in endorsement between cases and non-cases, reflecting a more “successful” item. Negative gradient scores indicate that a greater proportion of non-cases endorsed the item. Successful items were defined as those with a gradient score > 0.05, endorsed by > 25% of cases, and endorsed by < 25% of non-cases. These items are marked in bold in the tables below. Decision and rationale for why each item was successful or not across reporters can be found in Tables 9 and 10 (Appendix E).

3.2.1 Child Self-Report

As detailed in Figure 3, twelve items from the YSR scale successfully differentiated between cases and non-cases according to children’s self-report of their mental health. Local items, which assess positive mental health and severe negative behavior, were not successful. Two items, both local items which assess positive mental health, were dropped due to negative gradient scores. These items were also endorsed
by greater than 25% of non-cases. A YSR item, which assesses a child’s ability to relax, was also dropped because greater than 25% of non-cases endorsed the item. Finally, eleven items, which include all local severe behavior items and seven YSR items, were dropped because they were endorsed by less than 25% of cases.

Figure 1: Item Gradients for Child Self-Report
3.2.2 Male Caregiver Report

Four CBCL items successfully differentiate between cases and non-cases according to the male caregiver’s report. These results are detailed in Figure 4.

A large majority of male caregiver items were unsuccessful; further, over 90% of these items were unsuccessful because they were endorsed for < 25% of cases. This
indicates a pattern of low endorsement across child mental health items for male caregivers. Additionally, it is important to note that the sample size for male caregivers (n = 15) is considerably smaller than that for child self-report or female caregiver report, (n = 22), as seven children enrolled in the study lived in households with single mothers. This may also partially account for the observed low endorsement across items for male caregivers.

Among the 20 items that were endorsed for < 25% of cases, ten also had negative gradient scores (indicating that male caregivers endorsed these items for more non-cases than cases), six had gradient scores of 0 (indicating that male caregivers endorsed these items equally across cases and non-cases), and one had a positive gradient score < 0.05; only three had positive gradient scores > 0.05. This suggests that, even with an increased sample size, many items may remain unsuccessful for male caregivers.

According to our a priori standards, any item with greater than 25% endorsement for non-cases was dropped. For male caregivers, this resulted in the item with the largest gradient score, which assessed symptoms of sadness or depression, being dropped from the list of successful items. It is likely that this item is actually important given its success for other reporters and high endorsement for cases among male caregivers, but this importance was not detectable, likely due to the small sample size.
3.2.3 Female Caregiver Report

As detailed in Figure 5, nine CBCL items successfully distinguished between cases and non-cases according to the female caregiver’s report, while 17 items were unsuccessful.

Figure 3: Item Gradients for Female Caregiver Report
Among the unsuccessful items, six were dropped because they were endorsed for < 25% of cases. Four of these were local items assessing severe negative behavior. Two CBCL items were also endorsed for < 25% of cases. These items assess suicidal ideation and verbally threatening others, both of which indicate severe mental health problems. That these items were endorsed for very few children indicates that these behaviors were uncommon in our sample. However, severe negative behaviors (e.g., running away from home, using alcohol or drugs, breaking the law) and suicidal ideation are known to be important clinical indicators despite the fact that they often occur with relatively low frequency in a population; they are often considered critical items that would be included in a measure even though less commonly endorsed.

Eight items were dropped because they were endorsed for > 25% of non-cases. Of these, one item had a gradient score of zero, indicating that an equal proportion of female caregivers endorsed the item for cases and non-cases; the remaining seven items had positive gradient scores, all greater than 0.05. An examination of the constructs measured by these items provides insight into the broad endorsement of these items across both cases and non-cases. Five of the eight items are included on the CBCL’s attention problems sub-scale; each of the remaining three items are included on a different subscale (aggressive behavior, withdrawn depressed, anxious depressed). That five of the eight items endorsed widely among non-cases assess attention problems suggests that these symptoms may be common across children in the study population, that the behaviors
are particularly salient or concerning to caregivers in this context, and/or that these symptoms are not indicative of emotional or behavioral problems in Kenya.

### 3.2.4 Caregivers Combined

Figure 6 details the item analysis results when considering the male and female caregiver reports together. Nine CBCL items were found to be successful; all local items; and the remaining eleven CBCL items were unsuccessful.

![Figure 4: Item Gradients for Male and Female Caregiver Reports Combined](image)
Five items were dropped due to negative gradient scores. Of these items, three were endorsed for < 25% of cases, one was endorsed for > 25% of non-cases, and one met both of these criteria. Three items were dropped because no caregiver, male or female, endorsed for their child, resulting in gradient scores of 0. Five items were dropped because they were endorsed for < 25% of cases. Two of these items also had positive gradient scores < 0.05. Lastly, six items were dropped because they were endorsed for > 25% of non-cases. All but one had positive gradient scores greater than 0.05.

3.2.5 Item Analysis Comparison

Table 5 provides a comparison of successful and non-successful survey items across all reports:
<table>
<thead>
<tr>
<th>Item</th>
<th>English Translation</th>
<th>Child Self-Report</th>
<th>Male Caregiver Report</th>
<th>Female Caregiver Report</th>
<th>Caregivers Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>cbcl/ysr 1</td>
<td>Do they act too young for their age?</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>cbcl/ysr 3</td>
<td>Do they argue a lot?</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>cbcl/ysr 4</td>
<td>Are they unable to finish things they start?</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>cbcl/ysr 8</td>
<td>Are they unable to concentrate or pay attention</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>cbcl/ysr 10</td>
<td>Are they unable to sit calmly?</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>cbcl/ysr 20</td>
<td>Do they destroy their things?</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>cbcl/ysr 22</td>
<td>Do they lack respect at home?</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>cbcl/ysr 23</td>
<td>Do they lack respect at school?</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>cbcl/ysr 35</td>
<td>Do they feel like they are nothing or valueless?</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>cbcl/ysr 41</td>
<td>Do they do things without thinking?</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>cbcl/ysr 50</td>
<td>Do they have fear or worry?</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>cbcl/ysr 52</td>
<td>Do they feel like they are the cause of problems?</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>cbcl/ysr 71</td>
<td>Are they self-conscious or easily embarrassed?</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>cbcl/ysr 78</td>
<td>Do they lack concentration or are they easily distracted?</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>cbcl/ysr 86</td>
<td>Are they troublesome or annoying?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cbcl/ysr 91</td>
<td>Do they talk about committing suicide?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cbcl/ysr 95</td>
<td>Do they have a hot temper?</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>cbcl/ysr 97</td>
<td>Do they threaten people?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cbcl/ysr 103</td>
<td>Are they unhappy, sad, or depressed?</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>cbcl/ysr 112</td>
<td>Do they worry?</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>tpmhcg/h 20</td>
<td>Do you feel they are bright and clever?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tpmhcg/h 21</td>
<td>Are they free and jovial?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tpmhcg/h 30</td>
<td>How often do they run away from home?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tpmhcg/h 31</td>
<td>How often do they have a drink containing alcohol?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tpmhcg/h 32</td>
<td>How often do they use hard drugs other than alcohol?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tpmhcg/h 33</td>
<td>How often do they get in trouble with the law?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
No item was successful across all four reports. However, nine items were non-successful across all reporters. All local items are included in the list of unsuccessful items. Local items with positive valence were dropped from analysis because they were endorsed for almost all children, regardless of case status. Local items with negative valence, which were added to capture specific serious negative, unsafe behaviors important in the study context (e.g., running away) were very infrequently endorsed. The three unsuccessful CBCL/YSR items were endorsed infrequently across cases and non-cases alike, and were dropped from analysis for all four reports for this reason.

Five items performed well across three out of four reports. These items assessed the following symptoms: lacking respect at home, feeling valueless, doing things without thinking, having fear or worry, and having a hot temper. Four of these five items were successful across children, female caregivers alone, and both caregivers combined, but not among male caregivers. The remaining item, which assessed doing things without thinking, was successful for children, male caregivers, and the combined caregiver report. That these items were successful across a wide range of reporters suggests that these may be the most critically important items from this measure for distinguishing between children with and without mental health problems for this population.

Five items were successful for a single reporter. Two items were successful only among male caregivers; these items assess argumentativeness and hyperactivity.
However, these items were endorsed by fathers for three cases and three non-cases, and were only significant because of the different numbers of cases and non-cases. Two items were successful according to child self-report only. These items measure internalizing symptoms (worry and guilt), which can often be invisible to caregivers. The item measuring self-consciousness was successful only for female caregivers. This item was endorsed by two cases and no non-cases according to children’s self-report, but was ultimately dropped because less than 25% of cases endorsed the item. In a larger sample, the self-report version of this item may indeed successfully distinguish between cases and non-cases.

The remaining six items were endorsed across two reports - four across self and either the female caregiver or combined caregiver reports, and two across the female caregiver and combined caregiver reports. The two items endorsed across female and combined caregiver reports were so highly endorsed by female caregivers that they were also successful in the combined caregiver report. They were not highly endorsed by male caregivers. These two items concern school-related behaviors, which are often attended to by mothers while fathers are at work; this may account for the observed pattern.

### 3.2.6 Proposed Final Item List

Together, the above results suggest a shortened set of fourteen items for future use:

CBCL/YSR 1, 4, 8, 20, 22, 35, 41, 50, 52, 71, 78, 91, 95, 103, 112 (see Table 6).
<table>
<thead>
<tr>
<th>Item</th>
<th>Caregiver English Translation</th>
<th>Child English Translation</th>
<th>Why Included</th>
</tr>
</thead>
</table>
| CBCL/YSR 1 | Do they act younger than their age? | Do you act younger than your age? | 1. Child self-report  
2. Combined caregiver report |
| CBCL/YSR 4 | Are they usually unable to finish things that they start? | Do you fail to finish things you start? | 1. Child self-report  
2. MCG report |
| CBCL/YSR 8 | Are they usually unable to concentrate, or can’t pay attention for long when they are told something? | Do you have trouble concentrating or paying attention? | 1. Child self-report |
2. Combined caregiver report |
2. Female caregiver report  
3. Combined caregiver report |
| CBCL/YSR 35 | Do they feel like they are nothing or valueless? | Do you feel worthless or inferior? | 1. Child self-report  
2. Female caregiver report  
3. Combined caregiver report |
2. Male caregiver report  
3. Combined caregiver report |
| CBCL/YSR 50 | Do they have fear or worry? | Are you too fearful or anxious? | 1. Child self-report  
2. Female caregiver report  
3. Combined caregiver report |
| CBCL/YSR 52 | Do they feel a lot like they are the cause of problems, more than they should? | Do you feel too guilty? | 1. Child self-report  
2. Female caregiver report |
<p>| CBCL/YSR 78 | Do they lack concentration or are they easily distracted? | Do you not follow instructions? | 1. Female caregiver report |</p>
<table>
<thead>
<tr>
<th>CBCL/YSR</th>
<th>Question 1</th>
<th>Question 2</th>
<th>Reporters</th>
</tr>
</thead>
<tbody>
<tr>
<td>91</td>
<td>Do they talk about committing suicide??</td>
<td>Do you think about killing yourself?</td>
<td>1. Important Clinical Indicator*</td>
</tr>
</tbody>
</table>
| 95        | Do they have a hot temper? | Do you get angry so fast? | 1. Child self-report  
   2. Female caregiver report  
   3. Combined caregiver report |
| 103       | Are they unhappy, sad, or depressed? | Are you unhappy, sad, or depressed? | 1. Child self-report  
   2. Combined caregiver report |
   2. Female caregiver report  
   3. Combined caregiver report |

*CBCL/YSR 91 was not successful for any reporters, but was retained because suicidal ideation is an important clinical indicator for severe mental illness.

All items that were successful according to the child’s self-report, regardless of how they performed across caregiver reports, are included in this list. Similarly, items were kept if they were successful for female caregivers, regardless of performance otherwise. CBCL/YSR 91, which assesses suicidal ideation, was also retained because suicidal ideation is a well-known and important clinical indicator for severe mental health problems in children. This item was likely “unsuccessful” in the current study due to the small sample size, which, in combination with the relatively low prevalence of suicidal ideation in children worldwide, resulted in almost no endorsement.

Five additional items may be important, but need further testing in order to better understand their clinical utility before incorporating into future surveys. Four of these are local severe behavior items. According to our previous qualitative research, the presence of one or more of the symptoms assessed by these items (e.g., running away, using drugs, drinking alcohol, breaking the law) is indicative of a severe behavior
problem. However, these behaviors are relatively uncommon, and were not present in our small sample. It is likely that, in a larger sample, these items would emerge as important diagnostic indicators. Alternatively, these may be helpful as optional items to retain in studies or clinical work focused specifically on serious adolescent risk behaviors and/or child protection. Additionally, CBCL/YSR 23, which assesses a child’s behavior at school, may be important, but was not endorsed for this sample. The original CBCL was designed to be administered to both parents and teachers, and therefore includes items which assess a child’s performance and behavior in the classroom. In the current study, CBCL items were administered only to parents, who may be unaware of their child’s behavior at school. Further research is needed to understand parental knowledge of school behavior and performance before confidently including or excluding this item for future use.

3.3 Examination of Risk and Protective Factors (Aim 2)

3.3.1 Quantitative

Table 7 displays Cohen’s $d$ effect sizes for the mean difference in predictor variable interview ratings between cases and non-cases defined by interview ratings. Across domains of potential family influences on mental health, average ratings varied widely between cases and non-cases, resulting in effect sizes ranging from 0.86 to 4.16. All domain and sub-domain effect sizes are $>0.80$ and are therefore considered “large”
according to our *a priori* standards. This indicates that multiple domains of family functioning are associated with child mental health in a meaningful way.

Table 7: Effect Sizes for the Mean Difference in Scores on Predictor Variables for Cases and Non-Cases

<table>
<thead>
<tr>
<th>Predictor Variables</th>
<th>Means</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cases</td>
<td>Non-Cases</td>
</tr>
<tr>
<td><strong>Domain</strong></td>
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<tr>
<td><strong>Whole Family</strong></td>
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</tr>
<tr>
<td>Overall Family Functioning</td>
<td>50.4</td>
<td>86.33</td>
</tr>
<tr>
<td>Structure, Organization, and Roles</td>
<td>52</td>
<td>81.67</td>
</tr>
<tr>
<td>Emotional Climate</td>
<td>46</td>
<td>83.33</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>52</td>
<td>86.67</td>
</tr>
<tr>
<td><strong>Couple Relationship</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Relationship Quality</td>
<td>29.71</td>
<td>87.13</td>
</tr>
<tr>
<td>Communication and Problem Solving</td>
<td>27.14</td>
<td>82.5</td>
</tr>
<tr>
<td>Conflict Resolution</td>
<td>24.29</td>
<td>85.0</td>
</tr>
<tr>
<td>Parenting Teamwork</td>
<td>32.86</td>
<td>82.5</td>
</tr>
<tr>
<td>Emotional Closeness</td>
<td>27.14</td>
<td>85.75</td>
</tr>
<tr>
<td><strong>Male Caregiver – Child Relationship</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Relationship Quality</td>
<td>40.71</td>
<td>85.75</td>
</tr>
<tr>
<td>Communication and Time Together</td>
<td>44.29</td>
<td>82.5</td>
</tr>
<tr>
<td>Emotional Closeness</td>
<td>41.43</td>
<td>85.0</td>
</tr>
<tr>
<td>Discipline Strategies</td>
<td>41.43</td>
<td>82.5</td>
</tr>
<tr>
<td>Consistency of Effort</td>
<td>41.43</td>
<td>85.0</td>
</tr>
<tr>
<td></td>
<td>Overall Relationship Quality</td>
<td>Communication and Time Together</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td><strong>Female Caregiver – Child Relationship</strong></td>
<td>69.1</td>
<td>93.08</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Male Caregiver Well-Being</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Health</td>
<td>2.43</td>
<td>3.13</td>
</tr>
<tr>
<td>Behavioral Health</td>
<td>2.29</td>
<td>3.63</td>
</tr>
<tr>
<td>Daily Functioning</td>
<td>2.29</td>
<td>3.63</td>
</tr>
<tr>
<td><strong>Female Caregiver Well-Being</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Health</td>
<td>1.4</td>
<td>2.92</td>
</tr>
<tr>
<td>Behavioral Health</td>
<td>2.9</td>
<td>3.91</td>
</tr>
<tr>
<td>Daily Functioning</td>
<td>2.4</td>
<td>3.42</td>
</tr>
</tbody>
</table>

### 3.3.2 Qualitative

#### 3.3.2.1 Family Functioning

Family functioning content was coded using three codes: “Structure, Organization, and Roles;” “Emotional Climate;” and “Problem Solving.” Each code corresponds to a sub-domain of family functioning assessed during the interview (see Codebook in Appendix D).

The “Family Structure, Organization, and Roles” sub-domain assessed the ways in which a family organizes itself to accomplish the demands of life, and included
Two of these components emerged as major themes that may explain the observed differences between cases and non-cases noted in Table 7. First, families of cases spent considerably less time together outside the home than did families of non-cases. While families of non-cases often attended church, funerals, and celebrations together, members in case families often would “go their own way,” eat meals away from home, and attend different churches. Second, failure of members to fulfill their roles and associated disruptions in family routine and family hierarchy were disproportionately present in families of cases. While any role failure was disruptive, the most significant disruptions occurred when male caregivers were unable to fulfill their roles. This role failure manifested in two primary ways: failure to provide financially and difficulty fulfilling roles due to problematic substance use. Male caregivers who were unable to provide financially for their families were viewed as “not like a man;” this often caused disputes or fighting or resulted in one or more children missing school, which further disrupted family organization. Male caregivers who engaged in problematic alcohol use also caused disruptions in family organization, primarily by spending money on alcohol rather than family needs, which led to tension, fighting, and school absenteeism. One female caregiver noted:

“It is true that my husband is someone who works and he is a mason, but when he wakes up, he may go and take tea in the hotel. He leaves you there
hungry. He goes and drinks all the money in the alcohol and when he comes back it is fighting.”

The “Emotional Climate” sub-domain assessed the balance of positive and negative emotions in the family, as well as the family’s sense of unity and shared values. Both of these emerged as significant differences between the families of cases and non-cases. Families of cases were generally characterized by the presence of negative emotions, including anger and fear, and also reported considerably more violence, less love, and less unity than families of non-cases. Negative emotions were closely tied to role failure:

“What shows that there is no love is that I continue crying of the responsibility that my husband left for me. If a person cannot meet the needs of the children, it means that he doesn’t love you.”

While some tension or fighting was present among families of non-cases, it was generally kept within the marital relationship and children were not exposed. In families of cases, however, children often witnessed conflict, both verbal and physical. One female caregiver noted, “that day that he grabbed me in the neck, that scared the children and they started to scream.” Occasionally, children who were present during marital conflict were also beaten: “It is the father who comes and starts beating mom. If you try to stop him, he can beat you so badly.”

Families of cases also reported few instances of togetherness or shared values, while families of cases reported high levels of unity. This follows the pattern identified
above in which families of non-cases spend considerably more time together than families of non-cases. Generally, members of case families completed their daily activities alone, which often fostered feelings of frustration, mistrust, and sadness:

**Mother:** “Everyone does his or her duty…most times an individual prefers to [do] his or her activities or duties alone.”

**Interviewer:** “Give me an example to show that the unity is lacking in the family.”

**Mother:** “For example, my husband does his own activities alone and I on the other side do all that I am supposed to do alone…if he has to make any decision, he will not consult [me] and I too will just make my own decision with no consultation…you know, when the husband has arrived we must quarrel…in this house there is no peace.”

The “Problem Solving” sub-domain assessed a family’s system for making decisions, problem solving ability, and ability to adapt to stressful circumstances. Two of these components emerged as likely contributors to observed differences in rating scores between cases and non-cases: poor adaptation to stressful circumstances and the inability to come to a satisfying solution to problems.

Families of non-cases were generally able to successfully adapt to stressful circumstances such as poverty or food insecurity. These families typically came together as a unit to discuss the problem and design a solution that was satisfying to all members. Families of cases, on the other hand, were characterized by tension and violence when faced with stressful circumstances, and were often unable to join together
as a unit to solve their problems. One male caregiver noted, “If there is no money, there is no peace;” another commented that, when faced with insufficient funds, arguments were unavoidable:

“Disputes in the family are inevitable. Like when I do not have money. There would be claims that I took the money to another place and other complaints…we have this very many times because most times I lack money and that means a dispute.”

While families of non-cases were almost always able to reach a satisfying resolution to conflicts or solution to problems, decision making and problem solving among families of cases was generally ineffective, both for problems related to money and otherwise. Conflicts were common, and many were never resolved. Often, problem solving attempts led to significant frustration and/or distress among one or more family members. This is exemplified by the following report from one female caregiver:

**Interviewer:** “How many times do you fail to agree upon a conflict of a family?”

**Mother:** “Very many times…almost every time…earlier he used to talk and I talk back, but this [sic] days I just stare at him, he just talks until he gets tired, in the morning if I ask him that issue, he becomes so cruel.”

### 3.3.2.2 Couple Relationship

Interview content related to the caregiver partner relationship was coded using four codes: “Communication and Problem Solving,” “Conflict Resolution,” “Parenting Teamwork,” and “Emotional Closeness.”
Material coded as “Communication and Problem Solving” overlapped considerably with material coded as “Conflict Resolution.” As such, it was difficult to parse out separate differences between cases and non-cases for each sub-domain; for this reason, these domains were analyzed together. Across families, frequency of communication varied greatly, depending on the caregivers’ jobs and other demands of life; this pattern was similar across cases and non-cases. Differences arose, however, in how the couple handles disagreement and conflict. Caregivers of cases reported significantly more disagreement than did caregivers of non-cases. Neither the topic nor the cause of disagreement within the couple seemed to predict conflict; instead, caregivers of cases argued the large majority of the time with few periods of positive communication. Caregivers of cases often exhibited periods of silence following disagreement, while caregivers of non-cases maintained healthy communication through periods of disagreement. For example, one female caregiver noted that she can “stay for two months without talking” to her husband; another reported the following:

“...If I enter then he starts quarreling, I must come down and just be silent. I just listen when his angers come up, I just have to keep quiet. I continue to keep silent for even two days.”

Nearly all caregivers of cases also reported that disagreement within the couple led to intense verbal, and often physical, fighting. Children in these families often witnessed the violence between their caregivers, and reported fear, anger, and stress, and when
this occurred. One child also noted feeling embarrassed, because his parents’ fighting was heard by neighbors:

“I feel bad because it is a shame in the whole plot…maybe I wrong another individual in the same place, they tell me that my parents normally quarrel.”

Caregivers of cases also reported on the effects of fighting in the home on their children. One female caregiver noted that, when she and her husband quarreled, her child would “think too much.” Caregivers of non-cases, however, reported virtually no violence or conflict, stating instead that disagreements were solved by sitting and talking together. Several caregivers of non-cases also noted feeling that harsh physical or verbal treatment during conflict was inappropriate, suggesting that these couples had very positive conflict management skills.

The “Emotional Closeness” sub-domain assessed the amount of love, unity, and trust in the partner relationship, as well as the quality of the couple’s sexual relationship. The major themes that emerged in this domain mirror those for the overall family emotional climate. Caregivers of cases reported significantly less love, trust, and unity in the marital relationship, as well as higher levels of negative emotions and considerably more violence, than did caregivers of non-cases. Frustration, mistrust, and lack of love often stemmed from one partner’s negative behavior, such as drinking or having extramarital affairs; no caregivers of non-cases reported these experiences, which may partially account for rating differences. As discussed previously, children who
witnessed marital conflict or violence reported feeling “bad,” “sad,” and “stressed up,” and were at times secondary victims of violence.

The sub-domain of “Parenting Teamwork” evaluated how well the couple worked together to provide care for and discipline the children; components include consistency of care and discipline between parents, support for the other caregiver’s parenting decisions, both caregivers’ satisfaction with their ability to work together, and the degree to which the system led to positive parenting. Consistency, support, and satisfaction emerged as important distinctions between cases and non-cases that may account for observed differences in numerical ratings. Caregivers of cases reported many instances of inconsistent parenting, ranging from disagreeing on discipline to one parent’s complete lack of participation in parenting. This lack of disagreement often led to poor parenting decisions, such as one parent dismissing the child from a punishment assigned by the other. Caregivers of non-cases, however, reported positive teamwork that almost always led to effective and satisfying parenting decisions. Caregivers of cases also reported considerably more frustration regarding their other caregiver’s parenting, or lack thereof:

“He does not take care of the children…When the children are getting ready to go to school he only tell [sic] them a word of bye…only that.”

“…She is jealous and doesn’t want me to support my child. Sometimes she is saying that his mother took him thinking she was able and she was not
and so on. She tries to criticize…in anything that I want to help this child, she doesn’t feel well.”

3.3.2.3 Caregiver – Child Relationships

Interview content related to caregiver-child relationships was coded using four codes, separately for male and female caregivers: “Communication and Time Together,” “Emotional Closeness,” “Discipline Strategies,” and “Consistency of Effort to Provide and Promote Safety.” Components that emerged as important distinctions between cases and non-cases generally held across both male and female caregivers; results are thus presented for both caregivers combined. Differences are noted where present.

The “Communication and Time Together” code captured the amount and quality of communication and time spent together between the caregiver and child, as well as both parties’ satisfaction. Each of these—frequency, quality, and satisfaction—emerged as important distinctions between cases and non-cases. Cases spent considerably less time with their caregivers than did non-cases. While all non-cases reported spending time with caregivers any time they were not in school, more than half of cases reported spending little to no time with one or both caregivers. Explanations for the reported lack of time together varied, but almost always included the caregiver spending time away from the home, for work or otherwise. Cases also reported poorer quality and more negative conversation than did non-cases. Virtually all non-cases reported instances of positive communication, such as “storying” or praying together; only one case noted any specific positive communication. Overall, little two-way communication was
present within the case-caregiver dyads, and the communication that did occur was often negative and upsetting, and usually involved discipline. More than half of cases reported that communication with one or both caregivers occurred only during discipline; this often impacted other aspects of the relationship, such as attachment:

*Interviewer:* “Do you feel you can tell your father your secrets?”

*Child:* “No”

*Interviewer:* “Why?”

*Child:* “I fear him…he is not a person that understands…he usually just canes [me].”

The “Emotional Closeness” code captured the emotional aspect of the caregiver-child relationship. Components within this code include love, attachment, warmth, and trust, as well as how comfortable, open, and happy the child feels around the caregiver.

Male caregivers and their children had relationships characterized by greater distance and fewer positive emotions than did female caregivers and their children; this pattern held for cases and non-cases. This was likely due to the cultural conception of males as provider or breadwinner, and thus male caregivers’ tendency to spend a greater proportion of their time at work than female caregivers, who spend time at home cooking and looking after children. However, across both male and female caregiver-child dyads, cases reported significantly less love and attachment, as well as more violence and harsh treatment, than did non-cases. The increased prevalence of violence and harsh treatment among case caregiver-child dyads often occurs in the context of
discipline, as discussed below. Attachment emerged as the most prominent themes within case interviews. A number of cases reported a complete lack of attachment, often because the child was not biologically related to the caregiver. This is exemplified by the following report:

Mother: “So sometimes [when] we have problems with this child, the father looks at her as if he doesn’t want her around.”

Interviewer: “The child is not his?”

Mother: “Yes”

Interviewer: “So he doesn’t look at that child like his child?”

Mother: “Yes”

Interviewer: “Does the father love her?”

Mother: “No, because she says that she is not [his] child.”

Lastly, caregiver-case dyads were characterized by a lack of trust and openness, whereas non-cases reported feeling safe around and loved by their caregivers, as well as feeling willing and able to share their secrets. For example, while all cases reported that they could not share secrets with this parents, non-cases often reported feeling “free,” and “safe” with their caregivers, as well as the ability to talk about sensitive topics such as menstruation or sex.

The “Discipline Strategies” code concerned any attempt at discipline, as well as any harsh treatment of the child by one or both caregivers. Specific components captured include appropriateness of discipline, discipline effectiveness, and use of positive and negative discipline strategies. Harsh treatment, including physical, sexual,
and verbal abuse, were coded as discipline and included under negative discipline strategies. Qualitative analysis indicated that cases and non-cases reported similar amounts of positive discipline strategies, such as verbal advising and mild physical discipline, and that discipline was generally effective across the sample. However, the presence or absence of overly harsh physical and verbal discipline emerged as the single most important distinction between cases and non-cases. Harsh discipline was primarily physical, consisting of harsh, painful beatings that either left marks on the child’s back/buttocks or were directed at the child’s head, neck, or torso. Harsh verbal discipline was less common, but present, and consisted of calling the child names (“dog,” “stupid,” “fool,” etc.) or threatening to hurt him/her. Cases also reported being denied food or chased out of the house, which is considered very harsh in the Kenyan context. Nine out of ten cases reported overly harsh discipline from one or both parents, compared to only one non-case. Children reported that harsh or abusive discipline affected them deeply, causing them to “think too much” or to withdraw and isolate themselves:

*Child:* “He knocks my neck…he uses the rolling stick to knock my knees…he says I am stupid, I should leave this house, and he can’t give me land.”

*Interviewer:* “When he does these things, how do you feel? How does your heart feel?”

*Child:* “Bad…I just think very badly…I just leave the house and go away…I just go and be alone.”
It is important to note that cases were defined as having either an emotional or behavioral problem; accordingly, several children defined as cases often behaved very badly at home. Thus, the increased prevalence of harsh discipline among cases may be due in part to the child’s poor behavior. One female caregiver noted feeling “so angry” and “so frustrated” with her child because he failed to listen to her or do his chores, and that this anger caused her to beat him. While this may help to explain the increased prevalence of harsh discipline among cases, there is no causal link, and behavior problems may have emerged secondary to harsh treatment. Additionally, even very poorly behaved children reported being negatively affected by harsh discipline, which may reinforce or cause mental health problems. Thus, harsh treatment appears to be an important influence on mental health, even if originally proceeded by externalizing symptoms.

The final caregiver-child code, “Consistency of Effort to Provide and Promote Safety,” concerns the caregiver’s effort to provide for the needs of his or her child. Specifically, this code captured the consistency of the caregiver’s effort to provide for the child’s basic needs (e.g., food, clothing, etc.) and to provide access to education, as well as the caregiver’s effort towards promoting the safety of the child (e.g., not sending them out late at night). Few specific differences emerged to account for numerical differences between cases and non-cases with regard to female caregivers. Instead, the difference can be attributed to a few extremely negative reports among cases. The average score for
female caregivers’ consistency for cases was dramatically affected by three cases who were rated at or below 50 for this domain; apart from these specific examples, descriptions of the female caregiver’s consistency of effort to provide for needs and promote safety were very similar across cases and non-cases. Consistent differences did emerge, however, for male caregivers. Nearly all male caregivers of cases were reported to either spend money on alcohol rather than basic needs or school fees, or to ignore the child altogether, often because they were not his biological child. Children were often deeply affected by this neglect. One child reported feeling “so bad” because his father came home drunk nearly every day; another child’s female caregiver noted that her husband “makes [the family] feel sad most of the time.”

3.3.2.4 Caregiver Well-Being

Interview content concerning individual caregiver well-being was coded using three codes, separately for male and female caregivers: “Emotional Health,” “Behavioral Health,” and “Daily Functioning.” Similar patterns emerged for both male and female caregivers across cases and non-cases.

Components within emotional health include sadness, stress or worry, and other bad feelings. Across cases and non-cases, almost all male and female caregivers reported some stress or worry, typically related to finances. However, only caregivers of cases reported that their daily functioning was seriously affected by financial stress.
Additionally, all caregivers of cases, and only three caregivers of non-cases, reported stress and sadness related to issues between members of the family. This suggests that family or dyadic relationship dysfunction may mediate the relationship between caregiver emotional health and child mental health, as caregiver emotional health is tied to issues within the family. Several caregivers of cases reported feeling so stressed and sad that they contemplated committing suicide:

“Sometimes I think about so many things until I feel like my heart is just going out of my chest… sometime [I] remember my late father, and sometime [I] wish I too was dead instead of going through these problems…there is a day I had bought diazonol which I wanted to take.”

The “Behavioral Health” code captured behaviors such as fighting, using alcohol or drugs, breaking the law, and “talking too much,” a cultural behavior similar to gossiping. No caregivers of non-cases reported any behavior problem, while more than half of caregivers of cases were reported to have one or more behavior problems. While behavior problems were more common in cases than non-cases across male and female caregivers, gender-specific differences did emerge. Female caregivers of cases with behavior problems reported one of the following negative behaviors: “talking too much,” fighting, and using alcohol. Male caregivers with behavior problems either reported alcohol use or engaged in IPV. Cases rarely reported feeling stressed by female caregivers’ behavior problems; however, they reported significant distress related to
paternal alcohol use. One child reported having nightmares about his father drinking; two others reported wishing their father would stop drinking:

Child: “…there is no money, the money that should be used to pay fees, my father takes to alcohol.”

Facilitator: “If you were to change something in your family, what would you change?”

Child: “The father to quit alcohol…”

The “Daily Functioning” code captured how well the individual caregiver is doing in his or her daily life. Components assessed include ability to complete daily work, getting along with others, and enjoyment. Nearly all caregivers of cases were reported to have problems with daily functioning, compared to only one non-case caregiver. Female caregiver impairment in functioning was reported to affect children less; most children who reported on their caregivers’ functioning discussed their male caregiver’s lack of work or participation in family life due to problematic alcohol use.

3.3.2.6 Summary

Table 8 summarizes the important components that emerged during qualitative analysis of semi-structured interview transcripts.
Table 8: Components Identified in Qualitative Analysis as Important Contributors to Numerical Rating Differences Between Cases and Non-Cases

<table>
<thead>
<tr>
<th>Domain</th>
<th>Sub-Domain</th>
<th>Important Components Distinguishing Cases from Non-Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Functioning</td>
<td>Structure, Organization, and Roles</td>
<td>• Decreased time spent together outside the home&lt;br&gt;• Failure of members (particularly male caregiver) to fulfill assigned role</td>
</tr>
<tr>
<td></td>
<td>Emotional Climate</td>
<td>• Increased prevalence of negative emotions (frustration, tension, anger)&lt;br&gt;• Decreased prevalence of positive emotions (attachment, love, warmth)&lt;br&gt;• Increased prevalence of violence, as well as of children witnessing conflict/violence&lt;br&gt;• Decreased sense of shared values, unity, and togetherness</td>
</tr>
<tr>
<td></td>
<td>Problem Solving</td>
<td>• Poor adaptation to stressful circumstances&lt;br&gt;• Poor conflict resolution - inability to reach solution satisfactory to all family members</td>
</tr>
<tr>
<td>Couples Relationship</td>
<td>Communication and Problem Solving; Conflict Resolution</td>
<td>• Increased prevalence of disagreements and conflict&lt;br&gt;• Poor conflict resolution – inability to reach solution agreeably&lt;br&gt;• Presence of violence during conflicts</td>
</tr>
<tr>
<td></td>
<td>Parenting Teamwork</td>
<td>• Inconsistent parenting between partners&lt;br&gt;• Lack of support and teamwork during parenting and when making parenting decisions&lt;br&gt;• Frustration and decreased satisfaction with partner’s parenting</td>
</tr>
<tr>
<td></td>
<td>Emotional Closeness</td>
<td>• Increased prevalence of negative emotions (frustration, tension, mistrust)&lt;br&gt;• Decreased prevalence of positive emotions (love, trust, unity)</td>
</tr>
<tr>
<td>Parent-Child Relationship</td>
<td>Communication and Time Together</td>
<td>• Decreased frequency of communication; less time together&lt;br&gt;• Decreased quality of communication (few positive interactions; most communication during discipline)&lt;br&gt;• Decreased child satisfaction</td>
</tr>
<tr>
<td></td>
<td>Emotional Closeness</td>
<td>• Increased distance&lt;br&gt;• Decreased attachment&lt;br&gt;• Increased prevalence of violence and harsh treatment</td>
</tr>
<tr>
<td>Discipline Strategies and Harsh Treatment</td>
<td>• Increased prevalence of harsh, abusive, and/or neglectful discipline</td>
<td></td>
</tr>
<tr>
<td>Consistency of Effort to Provide and Promote Safety</td>
<td>• Few differences for female caregivers - numerical difference driven by 3 extreme negative scores among cases • For male caregivers, increased prevalence of neglect (spending money on alcohol, leisure above child needs; ignoring child altogether)</td>
<td></td>
</tr>
<tr>
<td>Caregiver Well-Being</td>
<td>Emotional Health • Increased prevalence of functional impairment due to stress • Increased prevalence of severe emotional distress (e.g., thoughts of suicide)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Behavioral Health • Increased prevalence of any behavior problem</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Daily Functioning • Increased prevalence of all-cause functional impairment</td>
<td></td>
</tr>
</tbody>
</table>
4. Discussion

4.1 Aim 1

In order to begin to address the growing burden of mental health problems among children in LMIC, proper screening and assessment tools must be available. In Kenya, few assessment tools are available and fewer have undergone cross-cultural validation procedures. Yet, there is a well-established literature documenting how culture heavily influences the manner in which mental health problems are presented (Patel, 1999). While certain types of mental health issues (e.g., anxiety and depression) may be seen across a broad range of contexts, the specific way they manifest can be heavily shaped by local understandings and social mores. For this reason, it is widely acknowledged that measures of child mental health and psychosocial wellbeing need to clearly reflect the understanding of health and wellbeing in the setting in which they are being used.

According to Kohrt and colleagues (2016), the most promising assessment tools for use in LMIC include a combination of widely-used, clinically-validated items and items assessing local idioms of distress. This facilitates the detection of a wide presentation of child mental health problems with minimal false positives (Kohrt et al., 2016). In the current study, we began with a very large bank of candidate survey items that included both types of items, but that had not yet undergone cross-cultural validation procedures. We aimed to reduce the number of items to include only those
that successfully differentiate between children with and without mental health problems. As such, the overarching goal of Aim 1 was to identify which survey items best discriminate between cases and non-cases as determined by semi-structured interview ratings, which function as a gold standard.

Item analysis identified a number of survey items that successfully differentiate between children with and without mental health problems for the child’s self-report, each individual caregiver’s report, and both caregivers combined. Following item analysis, we examined items’ success across reporters in order to identify a subset for inclusion in the final survey. We retained all items that were successful according to the child’s self-report, because symptoms of poor mental health may be invisible to parents and teachers. We also retained all items that were successful according to the female caregiver’s report. These items were retained for two reasons. First, literature indicates that caregivers are more likely to report the presence of externalizing symptoms than children; all items endorsed by female caregivers and not children in this study assessed such symptoms. Second, interview transcripts used in this study indicated that female caregivers across both cases and non-cases spent large amounts time with their children on a daily basis, and are thus likely to provide informed reports of their children’s mental health symptomatology. One additional item related to suicidality, a critical clinical indicator, was also retained, for a final total of 15 items.
Items that were ultimately successful included those related to both externalizing and internalizing symptoms, such as feeling sad or depressed, failing to finish things, lacking respect at home, acting without thinking, and having fear or worry, among others. This suggests that mental health problems in children present in a variety of ways in the study population, manifesting as internalizing and/or externalizing symptoms. This is consistent with reports from high-income countries (Mash & Dozois, 2003) and other LMIC (Kieling et al., 2011), which indicate that mental health problems in children can present in a variety of different ways. That our results indicate a variety of symptoms and manifestations of distress is also consistent with current literature on diagnostic differences, both across children and comparing children to adults. Labile, unstable, and changeable mood is prominent, especially in children younger than 12 years (Singh, 2008). Children and adolescents find it difficult to verbalize their emotions, and symptoms can have different meanings based on the developmental level of the child (Singh, 2008). The fact that our list of successful items assesses a wide variety of both internalizing and externalizing symptoms suggests that the items are successfully capturing mental health problems in all their presentations.

Eleven items were excluded from our final list of successful items, including all local items. The two local items with positive valence, which attempted to capture local indicators of positive mental health (e.g., feeling “free” or “jovial”), were endorsed for more than 50% of both cases and non-cases, and were actually endorsed more frequently.
for cases than non-cases. This suggests that mental health in the local community may present and be conceptualized according to the presence or absence of negative symptoms, rather than the presence or absence of positive mental health. It is also possible that incorporating items with positive valence into a list of items with negative valence, was confusing to participants. Additionally, our assignment of case status only took into account negative emotional and behavioral symptoms, and did not measure positive mental health. It is possible that the items with positive valence would be successful if we defined cases differently. Lastly, these items may have been unsuccessful due to cultural conceptions of the family and children’s behavior. Cultural expectations indicate that children should agreeable, respectful, emotionally mature, courteous, and self-controlled at home (Sholevar, 2007); thus, items with positive connotation may have been unsuccessful because the large majority of children regularly exhibit the assessed behaviors at home.

The remaining local items, which assess severe negative behavior, were also unsuccessful, as they were very infrequently endorsed across reporters. These are therefore unlikely to be helpful for a measure of general mental health but may be helpful as optional items to retain in studies or clinical work focused specifically on serious adolescent risk behaviors and/or child protection. Similarly, all “unsuccessful” validated (CBCL/YSR) items evaluated the presence of externalizing symptoms and negative behavior, including argumentativeness, a lack of respect at school, and
troublesome or annoying behavior. There was very low endorsement among cases across these items, which resulted in their exclusion. Within our sample, these symptoms were very rarely endorsed; however, these items may be successful if re-tested with larger samples. These behavior items, when endorsed, were only endorsed for children determined to have behavior problems and were not endorsed for any non-cases, which further suggests that these items may work in a larger sample. Additional research is needed with more and a wider variety of subjects before finalizing inclusion or exclusion of these items.

Across both successful and unsuccessful items and both cases and non-cases, several additional interesting patterns of endorsement emerged. For example, the subset of CBCL/YSR items assessing symptoms of inattention and hyperactivity were widely endorsed across reporters, for both cases and non-cases. This is somewhat surprising given the aforementioned cultural expectations for child behavior, which suggest that children in Kenya are expected to be polite, calm, and controlled at home (Sholevar, 2007). However, insight into the Kenyan school system may explain the prevalence of these symptoms. Access to secondary and tertiary education in Kenya is limited, and depends largely on two factors: families’ financial ability to send children to school and children’s school performance (Yakaboski & Nolan, 2011). Further, only the best performing students are offered admission to secondary schools, and even fewer attend university (Yakaboski & Nolan, 2011). According to research from the University of
Nairobi, the pressure to perform well in order to progress to the next level of schooling, and the high attention demands of the Kenyan school environment can often result in poor attention or hyperactivity at home (Omondi, 2014). Accordingly, almost half of the 22 children in the current study reported stress related to school performance.

The pattern of endorsement for male caregivers differed significantly from that of female caregivers and for children’s self-report. Very few male caregivers endorsed any single item, regardless of case status. Only seven items were endorsed by greater than 25% of male caregivers; six items were not endorsed by any male caregivers. This pattern of low endorsement across male caregivers suggests that male caregivers may not witness their children’s mental health symptomatology. This may be explained by the cultural conception of male caregiver as breadwinner, and subsequently the large proportion of male caregivers’ time spent at work compared to at home. Alternatively, male caregivers may have knowledge of their children’s mental health, but may be less willing to report these symptoms in the research context.

Together, the results of our item analysis both highlight the importance of adaptation and cross-cultural validation procedures before the use of an existing assessment tool in sub-Saharan Africa, and support the use of standard validated measures in this context, so long as cultural adaptation procedures are performed. Our prior qualitative research found that the large majority of CBCL/YSR items, when simply forward-translated into Kiswahili, were not understandable and/or relevant in
the local context. The results of this study, however, found that our extensive cultural adaptation procedures greatly improved the performance of these items, as all but two CBCL/YSR items were able to differentiate between children with and without mental health problems for at least one reporter. Our results thus suggest that the CBCL and YSR can be used in LMIC settings, but that simply translating these measures into the local language is not a sufficient adaptation procedure. Future studies seeking to validate the use of the CBCL and YSR in other LMIC settings should perform translation, cognitive interview, and validation procedures in order to ensure that items are culturally appropriate, and that the assessment tools successfully identify children with mental health problems expressed in a variety of presentations.

4.2 Aim 2

To date, few studies have examined contextual risk and protective factors influencing the development of mental health problems in children and adolescents in sub-Saharan Africa; without this knowledge, it is difficult to design successful prevention and intervention programs. Fewer still have evaluated risk and protective factors for poor mental health in Kenyan children and adolescents specifically (Puffer et al., 2012a; Puffer et al., 2012b). The current study aimed to build on the current evidence base by assessing family-level influences on child and adolescent mental health in this context. The results of this study provide potential targets for future programs aimed at reducing the burden of mental health disorders in the local population.
Initial quantitative analysis indicated that the family environment has a profound and significant impact on child and adolescent mental health. Specifically, our results indicate that overall family functioning, as well as specific components of family functioning – the caregiver marital relationship, caregiver-child dyadic relationships, and individual caregiver mental health and well-being – are important factors related to mental health outcomes for children in the study population. The large effect sizes presented in Table 6 demonstrate that overall family and dyadic relationship dysfunction are strongly associated with poor mental health in Kenyan children and adolescents.

As detailed in Table 8, subsequent qualitative analysis identified specific components of each of these domains that likely account for the observed differences. Dissatisfaction with the division or roles and responsibilities, the presence of violence in the home, the degree of unity/togetherness, and the family’s ability to adapt to stressful circumstances emerged as important differences between families of cases and non-cases. Specific components of dyadic relationship functioning also emerged as important differences between families of cases and non-cases. For example, couples who either stayed silent or engaged in verbal or physical fighting following a problem or disagreement were far more likely to have a child identified as a case. Additionally, the male caregiver’s consistency of effort to provide for his child’s needs was strongly
related to child case status. Caregiver individual mental health was closely related to child mental health.

Our results emulate those from high-income contexts, which indicate that family functioning and family relationships are among the most important factors in the development of mental illness in children (Repetti et al., 2002; Holmes, 2013; Bannink et al., 2013). Specifically, our results affirm that both Kenyan and Western families characterized by overt family conflict and inadequate emotional nurturance put children at risk for a wide array of adverse mental health outcomes, including depression, anxiety, aggression, and oppositional and delinquent behavior (Morris et al., 2007).

Our results thus suggest that family therapy interventions aimed at fostering positive interactions between family members may be successful in reducing the burden of mental health problems in Kenyan children and adolescents. Evidence-based family therapies have been used effectively in higher resource settings to help families reduce conflict, restore trust and attachment, and improve supportive communication and problem-solving skills; these in turn improve mental health outcomes for children and adolescents (Rambo et al., 2013; Saxena et al., 2007). A growing body of research has shown that family therapy, is also compatible with local understandings in LMIC settings, and perhaps more appropriate for communalistic locales such as Kenya.

Unfortunately, the large majority of family therapy research in LMICs concerns adult mental health - for example, Patel et al. (2008), for example, found that family therapy
was significantly more effective than individual counseling for the treatment of adult depression in India. However, a smaller body of research does suggest that family therapy specifically targeting mental health is appropriate and effective in LMICs; Verdeli et al. (2003) identified psychotherapeutic approaches involving family members as promising treatments for child mental health problems in rural Uganda. These findings, in combination with the results of the current study, suggests that theory- and evidence-based family therapy could be a very promising approach to treating and preventing mental health problems in Kenyan children.

4.3 Strengths and Limitations

This study has several strengths. First, our process of determining case status was intensive, and required collaboration and agreement between Kenyan counselors, a US-based clinical psychologist, and global health and clinical psychology graduate students. This process likely resulted in accurate, culturally sensitive case/non-case assignment, and allowed for detailed evaluation of survey items because were were able to be confident case status was assigned correctly. To our knowledge, few validation studies use such extensive consensus procedures to develop a gold standard against which new measures are compared. Relatedly, close and consistent collaboration between members of the U.S.-based team and Kenyan collaborators functioned to ensure members of the U.S. team appropriately and accurately interpreted study data. For example, while overt physical discipline is often considered overly harsh in Western
contexts, communication with local collaborators clarified that mild physical discipline, such as beating the legs and buttocks with a small stick, is culturally normative and less indicative of overall problems in relationship quality. Additionally, all study activities were conducted by Kenyan staff and research volunteers. This has several advantages, including ensuring cultural sensitivity and cultural competence during the research process, enhancing participant comfort given the study’s sensitive topics, and reducing social desirability and sponsor biases. Lastly, our study collected individual- and family-level data independently from multiple family members, which allowed us to triangulate information and increased confidence that our data accurately reflected the individual mental health and family functioning of our participants.

This study also has several limitations. The most significant limitation in this study is the small sample size (n = 22). This restricted our ability to analyze the data in several ways. First, we were unable to perform analyses separately for children with emotional problems and those with behavioral problems. Additionally, we were unable to examine patterns individually for male and female children. We were also unable to formally use dyadic analysis to triangulate reporters during item analysis. Lastly, the small sample size in this reduces our ability to make claims about the generalizability of our findings to other areas of Kenya and beyond. It is possible that both item analysis and thematic analysis could produce different results with a larger sample.
Additionally, while case and non-case families were relatively similar, the two groups differed on two demographic variables – area of residence and weekly household income. It is possible that these demographic differences confounded our results, and thus that difference in area of residence and/or income could partially account for the differences in family functioning observed during analysis related to Aim 2. This directly relates to another study limitation, which concerns the use of local community leaders in recruitment procedures. While we attempted to create a balanced sample on all demographic characteristics, leader responsiveness varied, resulted in the observed demographic differences. This sampling procedure also increases the possibility that our sample was distorted by selection bias, as selection of participants was not random.

We were also, due to survey length and time restrictions, only able to evaluate negative mental health. As such, we were unable to differentiate between children who simply did not exhibit symptoms of negative mental health and those that exhibited overtly positive mental health. It is possible that items with positive valence, which failed to be successful at differentiating between cases and non-cases in our study, may be successful if additional items are included and case status assignment takes positive mental health into consideration.

Another limitation of this study is that survey procedures took an average of three to four hours per participant, which likely resulted in fatigue-related biases. This is
especially relevant for self-report survey data, because child mental health items were asked at the end of the survey, after an average of two hours had passed. It is possible that answers to these survey questions do not accurately reflect a child’s mental health on a normal day.

A final limitation of our study is the fact that both child mental health data, used in case assignment, and data on family-level variables were obtained from the same sources (semi-structured interview transcripts). While these variables were addressed with unique questions, we used the entirety of the transcripts in our rating procedures. Thus, while we attempted to assess mental health and family functioning independently, it is possible that mental health ratings were biased by family functioning data, or vice versa.

5. Conclusion

Despite current evidence and growing recognition of the importance of mental health promotion and prevention in children and adolescents, enormous gaps in knowledge and resources persist. Urgent action is needed to understand, treat, and prevent mental health problems in children and adolescents around the world. The current study sought to establish an evidence base for measuring and understanding mental health in Kenyan children through the identification of survey items that best predict child mental health outcomes through comparison against currently validated assessment tools, and through the exploration of family-level factors hypothesized to be
important predictors of poor mental health in Kenyan children and adolescents. Our results identified a subset of fourteen CBCL/YSR items that successfully differentiate between children with and without mental health problems, and indicate that measures originating in high-income contexts are appropriate for use in LMIC settings as long as thorough cultural adaptation procedures are performed. We also found that family and dyadic relationship functioning are closely related to child mental health, such that family dysfunction and hostile, stressed dyadic relationships are associated with poor mental health, while warm, positive family environments are associated with positive mental health. These results suggest that family therapy is a promising approach when designing interventions to treat and prevent child mental health problems. Ultimately, the results of this study indicate a need for further research, both in order to test unsuccessful local survey items with a larger and/or targeted sample, and to formally evaluate the predictive nature of the family-level variables assessed in this study using regression or other statistical analyses.
Appendix A: Caregiver Interview Guide

Household ID (from field card):

Participant ID (from field card):

Relationship to Target Child (e.g., mother, father, grandmother):

Interviewer Name: ____________________________________________

Interview Date: ______________________________________________

Time Started: ______________________

Time Ended: ______________________

Recorder Number: _____
Caregiver Interview

Elezea Madhumuni: Ningependa kujifunza kuhusu jinsi familia yako inahusiana na kila mmoja na jinsi wewe huhisi kuhusu vitu katika familia yako.

Introduce Purpose: I would like to learn about how your family interacts with each other and how you feel about things in your family.

Review the Household Roster (on field card):

Hebu tupitie hii karatasi nyingine (kadi ya uwanja) ili nijue nani yuko kwa familia yako. *(Soma kwa sauti pamoja haraka)*

Let us review this other paper (field card) so that I can know who is in your family.

Read the field card out loud together and have the participant confirm the details for each person in the family. If there are any inconsistencies, STOP and consult your supervisor immediately. If all details are correct, please sign the box on the field card that corresponds to you (the interviewer) and the participant (either mom or dad).

Here is an example:

<table>
<thead>
<tr>
<th>Enumerator</th>
<th>Interviewer</th>
<th>Obs. Activity Administrator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caregiver 1</td>
<td>SIGN HERE</td>
<td></td>
</tr>
<tr>
<td>Caregiver 2</td>
<td>SIGN HERE</td>
<td></td>
</tr>
<tr>
<td>Target Child</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mtoto ambaye tutaongea kuhusu ni __________ (jina la mtoto).
The child we will be talking about is __________ [child’s name].

KWA MAHOJJANO ILIYOBAKIA, IKIWA MSHIRIKI ATAONGEA KUHUSU MTOTO MWINGINE KWA FAMILIA, TAFADHALI REJEA KWAO UKITUMIA HERUFI YA KWANZA YA JINA.

FOR THE REMAINDER OF THE INTERVIEW, IF THE PARTICIPANT TALKS ABOUT ANOTHER CHILD IN THE FAMILY, PLEASE REFER TO THEM BY THEIR INITIALS.
1. **Kawaida Ya Familia/ Majukumu na Uwajibikaji.**  
Family Routines / Roles and Responsibilities.

Ningependa kujua kuhusu kawaida ya familia na yale mnayofanya pamoja.

a. Ni nini kwa ujumla ni kawaida yako ya kila siku, kwako wewe mwenyewe na watu wengine wa familia yako?
b. Je ni mambo gani mnayofanya kwa Pamoja kama familia kila siku (kwa mfano wakati wa kula)? Ni nani katika familia anahusika?
c. Je, ni mambo gani mnayofanya kwa Pamoja kama familia nje ya nyumbani (kwa mfano kwenda kanisa au kuhudhuria sherehe)? Ni mara ngapi? Ni nani katika familia anhusika?

**ikiwa kuna mtu wa familia abaye ni mara nyingi hayupo, jua ni mara ngapi hayuko**
**If there is a member who is often absent, find out how often they are gone**

I would like to know about your family’s routines and what you do together.

a. What is your general daily routine, for yourself and the other members of your family?
b. What are things that the family does together daily (e.g., meal times)? Who is involved in the family?
c. What are other things away from home that your family does together (For example going to church or attending a celebration)? How often? Who is involved in the family?
2. **Kutosheka na Majukumu na Uwajibikaji.**

   **Satisfaction with Roles and Responsibilities.**

Umeniambia kila kitu ambacho mtu kwa familia yako hufanya. Ningependa kujua zaidi kuhusu majukumu na uwajibikaji katika familia yako.

A. Wewe unahisi jinsi gani kuhusu vile majukumu imegawanywa katika familia yako (kwa watu wazima na watoto)?
B. Tafadhali nieleze sababu unahisi (e.g., kukasirika, furaha, huzuni)

**Uliza Zaidi:**

   a. Tafadhali eleza ikiwa wewe, mke/mume wako na watoto wako mnafanya kazi nzuri au mbaya kwa kutimiza wajibu wenu kwa familia.
   b. Ni shida gani unapata kwa sababu ya watu kutotimiza wajibu wao?
   c. Ni nani kiongozi wa familia yenu? Je, anatimiza wajibu wake vyema? (Uliza Zaidi upate mifano)
   d. **MABADILIKO:** Ni nini ungependa iwe tofauti kuhusu wajibu na majukumu?

You have told me what each person in your family does. I want to know more about roles and responsibilities in your family.

A. How do you feel about the way responsibilities are divided in your family (both adults and children)?
B. Please tell me the reasons you feel (e.g., angry, happy, sad)

**Probes:**

a. Please explain whether you, your spouse, and your children are doing a good job or bad job filling your roles in the family.
b. What problems do you have when people do not fulfill their responsibilities?
c. Who is the leader in your family? Is he/she fulfilling their roles well? (probe for examples)
d. **CHANGE:** What do you wish was different about the roles/responsibilities?
3. **Hisia za Karibu za Familia na Umoja.**  
**Family Emotional Closeness and Unity.**

Yafuatayo ningependa kujua jinsi familia yako inahisi kuhusu kila mmoja. Fikiria kuhusu kila mtu katika nyumbani uhusiana na watu wazima na watoto.

a. Ni hisia za karibu/ upendo kiasi gani iko katika familia yako? (Uliza Zaidi upate mifano- hebu tueleze baadhi ya vitu ambavyo vinaonyesha kiasi cha upendo/ hisia za karibu kwa familia yako).

b. Ni jinsi gani umoja/pamoja iko katika familia yako? (Uliza Zaidi upate mifano- hebu tueleze baadhi ya vitu kwa familia yako ambayo inaonyesha kuwa kuna umoja au hakuna).

**Next I would like to know how your family feels about each other. Think about how everyone in the household relates, adults and children.**

a. How much emotional closeness/ love is there in your family? (Probe for examples - can you explain some of the things that shows that there is love/ emotional closeness in your family).

b. How unified/together is your family? (Probe for examples – can you explain some of the things that shows that there is unity or not?)
4. **Kufanya Maamuzi/ Utatuzi Wa Matatizo.**  
**Decision Making / Problem-Solving.**

Yafuatayo, ningependa kujuu kuhusu vile familia yako hufanya uamuzi.

a. **Ni uamuzi gani ambayo familia yako ilifanya hivi karibuni?** (Kwa mfano, wakati unahitajika kuanza jinsi utakavyotumia pesa au kushughulikia jambo mbaya iliyoetokea?)

b. **Ni jinsi gani familia yako ilifanya uamuzi? Tafadhali nieleze hadithi yote.**
   - Uliza zaidi (ikiwa inahitajika): Nani alihusika? Ni nini mlisema kwa kila mmoja? Nani alifanya uamuzi wa mwisho?
   - Je, ilikuwa njia nzuri au mbaya kufanya uamuzi? Kwa nini?

c. **Je, ni kawaida ya familia yako kufanya uamuzi hivyo?**
   - Ikiwa la, niambie njia gani familia huwa inafanya uamuzi. (Pata mifano)

d. **Ni katika hali gani ambayo watoto wako au watu wengi ne katika familia wanahusishwa kufanya uamuzi au utatuzi wa matatizo?** Tafadhali nipe mifano jinsi ambavyo wangehusika.

Next, I would like to know about how your family makes decisions.

a. **What is a decision that your family had to make recently?** (For example, when you need to decide how to spend money or handle something bad that has happened?)

b. **How did your family make that decision? Please tell me the whole story.**
   - Probes (if needed): Who was involved? What did you say to each other? Who made the final decision?
   - Was it a good or bad way to make decision? Why?

c. **Is this the normal way your family makes decisions?**
   - If NO, tell me how your family normally makes decisions. (get example)

d. In what situations are your children or other family members included in decision making or problem-solving? Please give me an example of how they would be involved.
5. **Kusuluhisha Migogoro.**

*Conflict Resolution.*

I would like to know how your family handles disagreements. Sometimes conflicts are just between a husband and wife. Sometimes conflicts involve the children or other family members as well. I will first ask about conflicts that involve multiple members of your household – not just you and your spouse. If you are married, then I will ask about disagreements involving only you and your spouse.
5A. **Migogoro katika familia kwa ujumla.**

**Broader Family Conflict.**

Kwanza, ngingependa kujua kuhusu migogoro ambayo inahusisha watu mbalimbali katika nyumba yako – sio tu wewe na mchumba wako.

a. **Je, ni mfano gani maalum ya migogoro au kutoelewana ya hivi maajuzi inayohusisha watoto wako na/au watu wengine wa familia? Tafadhali nieleze kwa undani.**

b. **Je hii ni njia ya kawaida ya familia inatenda wakati wa migogoro?**
   - Ikiwa LA: niambie jinsi familia kwa kawaida inashughulikia kutoelewana.
   - (pata mfano)

b. **Je, wanafamilia hujunga dhidi ya wengine ya wengine? Tafadhali eleza.**

d. **Je ni nini familia yako yake utokubaliana kuhydroo mara ya kila?**

e. **Ni mara ngapi mnakuwa na kutokubaliana na migogoro kwa familia?**

f. **Wakati mwingine familia huvurugana wakati wa migogoro. Je, hii inafanyika katika familia yako? Ni mara ngapi? Ikiwa NDIO, waulize wapeane mifano maalum. (Jua ni aina gani ya vurugu, ni mara ngapi na kali kiwango gani.)**

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First, I would like to know about conflicts that involve multiple members of your household – not just you and your spouse.

a. **What is a specific example of a recent conflict or disagreement involving your children and/or other family members? Please tell me the whole story.**
   - Probes (if needed): Who was involved? What did you say to each other? How did you feel?

b. **Is this the normal way your family acts during conflict?**
   - If NO: tell me how your family normally handles disagreements. (get example)

c. **Do family members team up against each other? Please explain.**

d. **What does your family disagree on most often?**

e. **How frequently do you have family disagreements or conflicts?**

f. **Sometimes families become violent during conflicts. Does this happen in your family? How often? If YES, ask them to give specific examples. (Find out what type of violence, how often, and how severe.)**

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5B. **Migogoro ya wanandoa.**

**Couples Conflict.**

**Wanandoa wote wana kutoelewana:** Ningependa kujua jinsi mnavyo-shughulikia migogoro baina yako na mpenzi wako.

a. Unaweza kunipa mfano maalum ya mgogoro au kutoelewana ya hivi karibuni na mke/mume wako? Tafadhali nieleze kwa undani?
   - Uliza Zaidi (ikiwa inahitajika): Ni jambo gani mlijadiliana kuhusu? Alafu…Ulihisi namna gani?

b. Je hii ni njia ya kawaida nyinyi wawili kushughulikia kutoelewana? (pata mfano
   - Ikiwa LA: niambi jinsi wewe na mchumba wako mnashughulikia kutokealiiana. (Pata mfano)

c. Ni jambo gani inaleta kutoelewana kati yenu wawili mara nyingi?

d. Kutokealiiana au mgogoro huwa inafanyika mara ngapi kwa wiki/ mwezi?

e. Wakati mwingine wanandoa huvurugana wakati wa migogoro. Je, hii inafanyika katika uhusiano wenu? Ikiwa NDIO, eleza Zaidi. (Jua ni aina gani ya vurugu, ni mara ngapi na kali kiwango gani.)

f. Je magombano yenu imewahifanyika mbele ya watoto? Ikiwa NDIO, wao hufanya nini?

g. Je, wewe na watoto wako mumewahi zungumza kuhusu magombano mlilyokuwa nayo na mke/mume wako? Ikiwa NDIO, nipe mfano ya yale mazungumzo.

**All couples have disagreements; I would like to know how you handle conflict between you and your partner.**

a. Can you give me a specific example of a recent conflict or disagreement with your spouse? Please tell me in details
   - Probes (if needed): What did you discuss about? Next…How did you feel?

b. Is this the normal way you both act during conflict? (Give examples)
   - If NO: tell me how you and your spouse normally handle disagreements. (get example)

c. What is the issue that causes disagreement between the two of you most often?

d. Your disagreements or conflicts happen how frequently in a week or month?

e. Sometimes couples become violent during conflicts. Does this happen in your relationship? If YES, explain more. (Find out what type of violence, how often, and how severe.)

f. Do your quarrels ever happen in front of the children? If YES, how do they react?

g. Do you and your children ever talk about quarrels that you have with your spouse? If YES, give me an example of one of those conversations.
6. **Hisia za Karibu za Wanandoa/Umoja.**
   **Couples Emotional Closeness / Unity.**

Ningependa kujifunza kuhusu jinsi wewe na mke / mume wako mnahisi kuhusu kila mmoja. Ninaongea kuhusu mambo kama upendo, uaminifu, na jinsi mlio pamoja/umoja mliyo nayo.

   a. Je mambo haya yako vipi katika uhusiano wenu?
   b. Kwa nini unahisi hivi? Taja baadhi ya vitu ambavyo zinaonyesha kuwa kuna upendo/umoja/uaminifu au la?
   c. Uhusiano wenu kitanda uko vipi?

I would like to learn about how you and your partner feel about each other. I am talking about things like love, trust, and how together/unified you are.

   a. How are these things in your relationship?
   b. Why do you feel this way? Tell me some things that show whether there is love/unity/trust or not?
   c. How is your sexual relationship?
7. **Kuidhika na Uhusiano wa Wanandoa.**  
**Overall Couples Relationship.**

a. Kwa ujumla, ni nini umuhimu katika sehemu ya uhusiano wenu?
b. Ni nini kibaya katika sehemu ya uhusiano wenu?
c. MABADILIKO: Kwa ujumla, ni nini ungependa iwe tofauti kati ya uhusiano wenu?

a. Overall, what are the positive aspects of your relationship?  
b. What are the negative aspects of your relationship?  
c. CHANGE: Overall, what would you like to be different between your relationship?
8. **Uhusiano wa Mzazi na Mtoto**  
**Parent-Child Relationships**

Tutajadiliana sasa kuhusu mmoja wa watoto wako uliyemchagua kuhusika katika utafiti huu: Mtoto anaitwa ________. Hiyo ni kweli?

We will now discuss one of your children whom you chose to participate in this research: The child’s name is _________. Is that right?
8A. **Maelezo ya mtoto.**  
**Child Description.**

b. Tafadhali unieleze kuhusu hisia za mtoto wako na kama anahisi kusumbuliwa na mawazo mengi au huzuni kama anafikiria sana ama kama anayo hisia zingine mbaya.
   i. Aina ya dalili?
   ii. Ni mara ngapi? Ni uchungu kiwago gani? Ilianza lini?
   iii. Ni Jinsi gani dalili hizi zinaathiri maisha ya mtoto wako?
   i. Aina ya dalili?
   ii. Ni mara ngapi? Ni uchungu kiwago gani? Ilianza lini?
   iii. Ni Jinsi gani dalili hizi zinaathiri maisha ya mtoto wako?

a. I’d like you to tell me about (name of child). Tell me briefly about their feelings, behaviour, and what they regularly do.
b. Please tell me about your child’s mood and whether they feel a lot of stress or sadness, or whether they think too much or have other bad feelings.
   i. What are your concerns?
   ii. How often? How severe? When did they start?
   iii. How do these symptoms impact the child’s life?
c. Please tell me about your child’s behaviour overall. Think about behaviours that people may consider “bad” behaviour, like fighting, using alcohol or drugs, or breaking rules or the law.
   i. What are your concerns?
   ii. How often? How severe? When did they start?
   iii. How do these symptoms impact the child’s life?
d. How is your child in the normal things in life, like daily work, getting along with other people, performing well in school, and enjoying things? (Probe about the different areas).
8B. **Uhusiano wa mtoto na mlezi.**  
*Child/Caregiver Relationship.*

Ningependa kukuuliza kuhusu uhusiano kati yako na mtoto wako.

a. Je, wewe unahisi vipi kuhusu huyu mtoto?
b. Ni wakati gani mko pamoja na mtoto wako?
c. Ni mambo gani huwa mnaogea na mtoto wako?
d. Ni lini mara ya mwisho mtoto huyu alikuwa na shida au hasira? ulifanya nini?  
   Nieleze Ni nini kilifanyika. Na baadaye ...
e. Ni lini mara ya mwisho mtoto huyu alikosa kutii au kuwa msumbufu? Ulimrekebisha  
   vipi? Nieleze  Kwa urefu kilichofanyika.
f. Hii ndio huwa njia ya kurekebisha? Ikiwa LA, huwa kwa kawaida humrekebisha vipi?  
   **Uliza Zaidi kwa maelezo** maalum jinsi anavyo rekebisha mtoto na kwa kiasi gani:
   i. Unamrekebisha kivipi?
      a. Ikiwa kimwili: mara ngapi, uchungu kiasi gani, sehemu gani ya mwili?
      b. Ikiwa matusi: Wewe husema nini? kwa sauti kiasi gani? Kwa muda gani?
   ii. Ni mara ngapi… (uliza zaidi kuhusu mbinu zingine za kurekebisha  
      zinazotumika)
g. Ukimlinganisha mtoto huyu na watoto wengine katika familia, uko karibu kwa  
   uhusiano au sio karibu?

I would like to ask about your relationship between you and your child.

a. How do you feel towards/about this child?
b. When do you spend time with this child?
c. What things do you talk about with your child?
d. When was the last time this child had a problem or was upset? What did you do?  
   Tell me what happened. Next ...
e. When was the last time this child was disobedient / stubborn? How did you discipline  
   him/her? Tell me in details what happened.
f. Is this how you usually discipline him/her? If NO, how do you usually discipline?  
   Probe for specific details on how they enact the discipline and the severity:
   i. How do you do it?
      a. If Physical: How many times, how hard, where on the body?
      b. If verbal: What do you say? How loudly? How long?
   ii. How often do you…(probe about the different types of discipline they use)
g. Compared with other children in the family, are you closer or less close to this child?
8C. **Uhusiano wa mtoto na walezi wengine.**  
*Child’s relationship with other caregiver(s).*

a. Je, ni jinsi gani mtoto huyu anahusiana na [mlezi] mwingine?
   i. Uhusiano wao ni karibu kiasi gani? Tafadhali nipe mfano kueleza.
   iii. Je mlezi huyu anampenda huyu mtoto kama watoto wengine? Ikiwa ni la, kwa nini?

b. Jinsi gani mlezi mwenzako anamrekebisha mtoto?
   i. Uliza maelezo zaidi jinsi anavyo mrekebisha mtoto na kwa kiasi gani:
      1. Anamrekebisha kivipi? (mara ngapi, uchungu kiasi gani, sehemu gani ya mwili, kelele kiasi gani, na anasema nini?)
      2. Ni mara ngapi... (hii inaweza kuwa kama mara ngapi kwa wiki badala ya majibu ya jumla; uliza zaidi kuhusu marekebisho tofauti zinazotumika)
      3. Je kuna njia zingine zinazotumika za kurekebisha?
   ii. Je, huwa wanaadhibu mtoto kwa sababu nzuri au wakati mwingine wanakuwa wakali kwa mtoto bila sababu?

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a. How does this child relate to their other [caregiver]?
   i. How close are they? Please give me an example to explain.
   ii. When do they spend time together? What do they talk about? Please give me an example to explain.
   iii. Does that parent like this child as much as the other children? If no, why?

b. How does the child’s other parent discipline the child?
   i. Probe for specific details on how they enact the discipline and the severity:
      1. How do they do it? (how many times, how hard, where on the body, how loudly do you shout, what do you say?)
      2. How often do they...(This should be something like times per week rather than general answers; probe about the different types of discipline they use)
      3. Are there other ways of discipline used?
   ii. Do they punish the child for good reasons or do they sometimes treat the child harshly for no reason?
8D. **Je mtoto huyu anahusiano gani na watoto wenzake au watu wengine nyumbani?**
How does this child relate to their siblings or other people in the house?

a. Uliza Zaidi: Kuna mtu yeyote aliye na mgogoro naye? Kuna yeyote anayembagua mtoto huyu? Kuna yeyote anaye mnyanyasa mtoto huyu? **FANYA HII IWE FUPI

a. Probes: Is there anyone they have a lot of conflict with? Does anyone discriminate against this child? Does anyone abuse this child? **KEEP THIS BRIEF
8E. **Uzazi wa pamoja (Kuhusiana na majukumu ya wanandoa).**

**Joint Parenting (related to couples functioning).**

a. Je, wewe unafikiria mke/mume wako ni mlezi mzuri? Kwa nini au kwa nini sio?
Tafadhali nipe mfano maalum.
b. Je, nyinyi hufanya kazi kwa pamoja jinsi gani kama wazazi? (kujali watoto, kupea watoto nidhamu, kuwa na wakati na watoto)
c. Mnakubaliana na maswala ya uzazi? Tafadhali eleza baadhi ya vitu mnakubaliana au hamkubaliani kuhusu.

a. Do you think your spouse is a good parent? Why or why not? Please give me a specific example.
b. How do you work together as parents? (Caring for children, Disciplining children, Spending time with children)
c. Do you agree on parenting issues? Please explain some examples of things you do or do not agree on.
9. **Ukifikiria familia yako kwa ujumla, ni vitu gani ungependa ibadilike?**

Thinking about your family overall, what are the things you want to change?
Caregiver Psychological / Behavioral Health.

Asante kwa kunieleza kuhusu familia na mtoto wako. Ningependa sasa kujua vile wewe unafanya.

10A. Tafadhali unieleze kuhusu hisia zako na iwapo unahisi kusumbuliwa na mawazo mengi ama huzuni kama unafikiria sana ama kama unayo hisia mbaya.  
a. Ni nini wasiwasi yako?  
b. Tafadhali nieleze jinsi unahisi na unachofanya wakati una shida hizi.  
c. Ni mara ngapi? Ni chungu kiwango gani? Ilianza lini?  
d. Hii imeathiri vipi ama afya afya yako?

10B. Tafadhali unieleze kuhusu tabia yako kwa ujumla. Fikiria kuhusu tabia ambazo watu wanaweza kufikiria ni tabia "mbaya", kama kupigana, kutumia pombe au madawa ama kuvunja sheria.  
a. Ni nini wasiwasi yako?  
b. Tafadhali nieleze jinsi unahisi na unachofanya wakati una shida hizi.  
c. Ni mara ngapi? Ni chungu kiwango gani? Ilianza lini?  
d. Hii imeathiri vipi maisha ama afya yako?

10C. Wakati mwingine shida za hisia, mawazo ama tabia hufanya iwe vingumu mtu kufanya vitu ambayo anapaswa kufanya kama kawaida kwa maisha yake, kama kazi za kila siku, kushirikiana na watu na kufurahia vitu. Tafadhali niambie jinsi unafikiria unafanya vyema katika sehemu hizi za maisha.

Thank you for telling me about your family and child. I would now like to know how you are doing.

10A. Please tell me about your mood and whether you feel a lot of stress or sadness, or whether you think too much or have other bad feelings.  
a. What are your concerns?  
b. Please tell me how you feel and what you do when you have these problems.  
c. How often? How severe? When did they start?  
d. How has this affected your life or health?
10B. Please tell me about your behavior overall. Think about behaviors that people may consider "bad" behavior, like fighting, using alcohol or drugs, or breaking rules or the law.

- a. What are your concerns? (Please tell me exactly what the behaviors are.)
- b. Please tell me how you feel and what you do when you have these problems.
- c. How often? How severe? When did they start?
- d. How has this affected your life or health?

10C. Sometimes problems with emotions, thoughts, or behaviors make it more difficult for someone to do the normal things in life, like daily work, getting along with other people, and enjoying things. Please tell me how well you think you are doing in these areas of life.
**Observations**

**Participant**
How did the participant look? (dress, hygiene)

How did the participant seem to feel during the interview? Please explain.

How free did this person seem to you during the interview? Please explain.

What did you observe about the participant’s body language?

What did you observe about the participant’s tone of voice or other ways of answering the questions?

How did you, as the interviewer, feel during the interview?

**Home/Situation Environment**
Observations of the situation relevant to your clinical assessment (e.g. the house is messy; people come by to buy home brewed alcohol; etc.).

**Services/Referrals**
Did you make any referrals for urgent needs for the family? (PLEASE DISCUSS WITH RESEARCH ASSISTANT)

Did the participant ask about any services? Please describe.

Did you talk to the participant about any available services? Please describe.
Appendix B: Child Interview Guide

Household ID (from field card):

Participant ID (from field card):

Relationship to Target Child (e.g., mother, father, grandmother):

Interviewer Name: ____________________________________________

Interview Date: ______________________________________________

Time Started: __________________________

Time Ended: __________________________

Recorder Number: ____
Child Interview

Eleza Madhumuni: Ningependa kujifunza kuhusu jinsi familia yako inahusiana na kila mmoja na jinsi wewe huhisi kuhusu vitu katika familia yako.

Introduce Purpose: I would like to learn about how your family interacts with each other and about how you feel about things in your family.

Review the Household Roster (on field card):

Hebu tupitie hii karatasi nyingine (kadi ya uwanja) ili nijue nani yuko kwa familia yako. (Soma kwa sauti pamoja kwa haraka)

Let us review this other paper (field card) so that I can know who is in your family.

Read the field card out loud together and have the participant confirm the details for each person in the family. If there are any inconsistencies, STOP and consult your supervisor immediately. If all details are correct, please sign the box on the field card that corresponds to you (the interviewer) and this child. Here is an example:

<table>
<thead>
<tr>
<th>Enumerator</th>
<th>Interviewer</th>
<th>Obs. Activity Administrator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caregiver 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caregiver 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Target Child</td>
<td>SIGN HERE</td>
<td></td>
</tr>
</tbody>
</table>

KWA MAJADILIANO ILIYOBAKI, IKIWA MSHIRIKI ATAONGEA KUHUSU MTOTO MWINGINE KWA FAMILIA, TAFADHALI REJEA KWAO UKITUMIA HERUFI YA KWANZA YA JINA LAO.

FOR THE REMAINDER OF THE INTERVIEW, IF THE PARTICIPANT TALKS ABOUT ANOTHER CHILD IN THE FAMILY, PLEASE REFER TO THEM BY THEIR INITIALS.
1. **Kawaida Ya Familia/Majukumu na Uwajibikaji.**
   Family Routines/ Roles and Responsibilities.

Ningependa kujua kuhusu kawaida ya familia yenu na yale mnayofanya pamoja.

- a. Nielize mpangilio wa siku katika familia yako.
- b. Ni majukumu/ wajibu gani huwa ya kila mtu kila siku?
- c. Je, wazazi wako ndio wanawapa mahitaji ya kila siku? Ikiwa sivyo, ni nani?
- d. Je ni mambo gani mnayofanya kwa Pamoja kama familia kila siku (kwa mfano wakati wa kula)? Ni nani wanaohusika katika familia?
- e. Je, ni mambo gani mnayofanya kwa Pamoja kama familia nje ya nyumbani kwa mfano kwenda kanisa au kuhudhuria sherehe? Ni mara ngapini? Ni nani wanaohusika katika familia?

**ikiwa kuna mwanafamilia ambaye mara yingi hayupo, jua ni mara ngapi hayupo**

I would like to know about your family’s routines and what you do together.

- a. Tell me about a typical day in your family.
- b. What are the roles / responsibilities of each person every day?
- c. Do your parents provide for your daily needs? If not, who?
- d. What are things that the family does together daily (e.g., meal times)? Who is involved in the family?
- e. What are other things away from home that your family does together e.g going to church or attending a celebration? How often? Who is involved in the family?

**If there is a member who is often absent, find out how often they are gone**
2. **Hisia za mtoto na Afya ya kitabia.**  
Child Psychological and Behavioral Health.

2A. Tafadhalu unieleze kuhusu hisia zako kama iwapo unahisi kusumbuliwa na mawazo mengi, kuwa nahuzuni unafikiria sana au unayo hisia mbaya.

   a. Ni nini wasiwasi yako?
   b. Tafadhali nieleze jinsi unahisi na nini unachofanya ukiwa na shida hizi.
   d. Hii imeathiri vipi maisha yako?

2A. Please tell me about your mood and whether you feel a lot of stress or sadness, or whether you think too much or have other bad feelings.

   a. What are your concerns?
   b. Please tell me how you feel and what you do when you have these problems.
   c. How often? How severe? When did they start?
   d. How has this affected your life?
2B. Please tell me about your behavior overall. Think about behaviors that people may consider "bad" behavior, like fighting, using alcohol or drugs, or breaking rules or the law.

a. What are your concerns?
b. Please tell me how you feel and what you do when you have these problems.
c. How often? How severe? When did they start?
d. How has this affected your life?

2B. Tafadhali unieleze kuhusu tabia yako kwa ujumla. Fikiria kuhusu tabia ambazo watu wanaweza kufikiria ni tabia "mbaya", kama kupigana, kutumia pombe au madawa ama kuvunja sharia.

a. Ni nini wasiwasi yako?
b. Tafadhali nieleze jinsi unahisi na nini unachofanya ukiwa na shida hizi.
d. Hii imeathiri vipi maisha yako?
2C. Sometimes problems with emotions, thoughts, or behaviors make it more difficult for someone to do the normal things in life, like daily work, getting along with other people, doing well in school, and enjoying things. I would like to know how well you think you are doing in these activities of life. (Probe about the different areas).
3. **Uhusiano wa mtoto na mlezi.**
Child/Caregiver Relationship.

3A. Nieleze kuhusiano wako na mama yako.

a. Je, unahisi vipi kuhusu mama yako?
b. Uko karibu (pamoja) kiasi gani na yeye?
c. Je, unafikiria mama yako anahisi vipi kukuhusu? Wewe hujua kivipi?
d. Je, wakati gani mko naye?
e. Je, mnazungumzia kuhusu nini? (uliza zaidi: je unaweza kumwamba siri zako?)
f. Je, ni wakati gani mwisho ulikuwa na shida au hasira? Yeye alifanya nini? Nieleze kwa urefu kilichofanyik

g. Je, wakati umefanya kitu kizuri, yeye hufanya nini? (pata mfano) Ukilinganisha na watoto wengine kwa familia yenu, je mama yako anakupenda zaidi au kidogo? (ikiwa ni kidogo, mifano maalum)

3A. Tell me about your relationship with your mother.

a. How do you feel about your mother?
b. How close (attached/pamoja) are you with her?
c. How do you think your mother feels about you? How do you know?
d. When do you spend time with her?
e. What do you talk to her about? (Probes: can you confide in her?)
f. When was the last time you had a problem or were upset? What did she do? Tell me in details what happened.
g. When you do something well, what does she do? (get example) Compared with other children in the family, does your mother love you more or less? (If less, specific examples.)
3B. When you do wrong, what does your mother do?

a. How does she do it (the punishment)?
   *Probe for specifics on how they enact the discipline (i.e., level of harshness, presence of abuse)*
   1. If beating, with what / how many times / how hard; Probe for any other physical discipline, like burning/pinching
   3. Probe for other negative (e.g., throwing out of house, denying food)
   4. Probe for non-violent (e.g., advising, removing special privileges, etc.)

b. Why does she punish you? (Probe: Do you ever feel like she is punishing you for no reason?). Please give specific examples.
c. How does the punishment make you feel?
d. When was the most recent time you did wrong? What did she do exactly? Tell me the story of what happened.
3C. Nieleze kuhusu uhusiano wako na baba yako.

a. Je, unahisi vopi kuhusu baba yako?
b. Uko karibu (pamoja) kiasi gani na yeye?
c. Je, wakati gani mko pamoja na yeye?
d. Je, unafikiria baba yako anahisi vopi kukuhusu? Wewe hujua kivipi?
e. Je, mnazungumzia kuhusu nini? (uliza zaidi: je unaweza mwambia siri zako?)
f. Je, unahisi vopi ukiwa karibu na baba yako?
g. Je, ni wakati gani hivi karibuni ulikuwa na shida au hasira? Yeye alifanya nini?
   Nieleze kwa urefu kilichofanyika.
h. Je, wakati umefanya kitu kizuri, yeye hufanya nini?
i. Ukilinganisha na watoto wengine kwa familia yenu, je baba yako anakupenda zaidi au kidogo? (ikiwa ni kidogo, peana mfano maalum

3C. Tell me about your relationship with your father.

a. How do you feel about your father?
b. How close (attached/pamoja) are you with him?
c. When do you spend time with him?
d. How do you think your father feels about you? How do you know?
e. What do you talk to him about? (Probes: can you confide in him?
f. How do you feel when you are around your father?
g. When was the last time you had a problem or were upset? What did he do? Tell me in
details what happened.
h. When you do something well, what does he do?
i. Compared with other children in the family, does your father love you more or less?
   (If less, specific examples.)
3D. Unapofanya mabaya, baba yako hufanya nini?

a. Uliza zaidi: Yeye hukuadhibu namna gani? (Adhabu)
   *Eleza zaidi. Jinsi anavyokurekebisha (hiyo ni kwango cha ukali, uwego wa unyanyazaji)*
   i. Kama anakupiga, anatumia nini/mara ngapi/ukali kiasi gani; uliza zaidi juu ya nidhamu ya kimwili, kama kuchoma/ngumi
   ii. Kama ni matusi ni kali jinsi gani? Peana mifano.
   iii. Uliza zaidi juu ya mabaya mengine( kwa mfano kutupwa nje ya nyumba, kunyimwa chakula).
   iv. Uliza zaidi juu ya kutokuwa na vurugu (kwa mfano, ushauri, kuondoa upendeleo maalum, e.t.c).

b. Nidhamu inakufanya wewe kuhisi namna gani?


3D. When you do wrong, what does your father do?

a. Probes: How does he do it (the punishment)?
   *Probe for specifics on how they enact the discipline (i.e., level of harshness, presence of abuse)*
   i. If beating, with what / how many times / how hard; Probe for any other physical discipline, like burning/pinching)
   iii. Probe for other negative (e.g., throwing out of house, denying food)
   iv. Probe for non-violent (e.g., advising, removing special privileges, etc.)

b. How does it make you feel?

c. When was the most recent time you did wrong? What did he do exactly? Tell me the story of what happened.
4. **Mapendeleo.**
   Favoritism.

a. *Je, wazazi wako huwa wanapendelea watoto wengine kukuliko katika familia yako? (Anapendelea wengine kukuliko?)*
   Ikiwa NDIO, nipe baadhi ya mifano.

a. **Do your parents favor some children over other children in your family? (Do they favor anyone over you?)**
   If YES, please give me some examples.

*IF THE PARTICIPANT STARTS TO REPEAT INFORMATION THEY HAVE ALREADY SHARED, DO NOT PROBE. JUST MOVE ON TO THE NEXT QUESTION***
5. **Uhusiano wa Jumla wa Familia.**  
*Overall Family Relationships.*

5A. **Hisia za karibu za familia na umoja.**  
*Family Emotional Closeness and Unity.*

Yafuatayo ningependa kujua jinsi familia yako huhisi kuhusu kila mmoja. Fikiria jinsi kila mtu nyumbani anahusiana, watu wazima na watoto.

a. Ni upendo kiasi gani/hisia za karibu iko katika familia yako?  
   Uliza Zaidi: Je, ni nini inakuonyesha kuwa kuna upendo au hakuna upendo?

b. Ni jinsi gani umoja/pamoja iko katika familia yako?  
   Je, ni nini inakuonyesha kuwa kuna umoja au hakuna umoja? Je, kuna vitu ambayo inawaonyesha kuwa hakuna umoja?

Next I would like to know how your family feels about each other. Think about how everyone in the household relates, adults and children.

a. How much love / emotional closeness is there in your family?  
   Probe: What shows you that there is love or that there is not love?

b. How unified/together is your family?  
   Probe: What shows you that there is unity or that there is not unity? Are there things that show them there is not unity?
5B. Kufanya maamuzi/ utatuzi wa mgogoro.
Decision-Making / Problem-Solving.

Ni nini shida moja familia yako imekuwa nayo hivi karibuni, au uamuzi ambayo familia yako walifanya hivi majuzi?

a. Je, familia yako iliamua vipi? Tafadhali nieleze kwa urefu.
   Uliza Zaidi (ikiwa inahitajika): nani alihusika? Ni nini ulisema kwa kila mmoja? Nani alifanya uamuzi wa mwisho?

b. Je, hii ni njia ya kawaida familia yako hufanya uamuzi?
   Ikiwa LA, niambie jinsi familia yako kwa kawaida hufanya uamuzi. (pata Mifano)

c. Ni jinsi gani maamuzi inayohusiana na wewe inafany (kwa mfano kuamua kazi gani utafanya, kulipa karo yako, kusafiri)? Unahusishwa vipi au unajulishwa vipi?

d. Je wazazi wako hukuongelesha kuhusu pesa inayohusiana na mahitaji yako na wanachoweza kutoa?

What is one problem your family has had recently, or a decision your family had to make lately?

a. How did your family make that decision? Please tell me in details.
   Probes (if needed): Who was involved? What did you say to each other? Who made the final decision

b. Is this the normal way your family makes decisions?
   If NO, tell me how your family normally makes decisions. (get example)

c. How are decisions are made related to you (i.e., deciding which chores you do, paying your school fees, travelling)? How are you involved or informed of the decision?

d. Do your parent(s) talk to you about money related to your needs and what they can provide?
5C. Kusuluhisha Migogoro.
Conflict Resolution.

Ni mfano gani maalum ya migogoro ya hivi karibuni au kutoelewana imekuwa kwa familia yako? Tafadhali nieleze kwa urefu

Uliza Zaidi (ikiwa inahitajika): nani alihusika? Ni nini mlisema kwa kila mmoja? Ulihisi vipi?

a. Je hii ni njia ya kawaida familia yako hutenda wakati wa migogoro?  
   Ikiwa LA: nieleza jinsi familia yako kwa kawaida hushughulikia kutoelewana. (Pata mfano).

b. Je, wanafamilia huwahi kujiunga dhidi ya wengine? Tafadhali eleza.

What is a specific example of a recent conflict or disagreement in your family? Please tell me in details.

Probes (if needed): Who was involved? What did you say to each other? How did you feel?

a. Is this the normal way your family acts during conflict?  
   If NO: tell me how your family normally handles disagreements. (get example)

b. Do family members ever team up against each other? Please explain.
5D. **Je wewe hujihisi vipi kuhusu familia yako inavyohusiana kwa ujumla?**  
*Start OPEN-ENDED, not with probes. Use probes to fill in*

PROBES:

a. Je, wewe unafikiri familia yako hukupenda? Ni baadhi ya njia gani unajua hivyo?

b. Wakati mwingine watu kwa familia hupenda watu wengine kuliko wengine. Nieleze ikiwa hii hufanyika kwa familia yako.

c. Ni vitu vipi kuhusu familia yako ambavyo vinavyopendeza? Ni nini vinasikitisha sana?

d. Kwa jumla, ni nini ungependa ibadilike kwa familia yako?

5D. **How do you feel about how your family relates overall?**

PROBES:

a. Do you think your family loves you? What are some ways that you know that?

b. Sometimes people in families love some people more than others. Tell me about if this happens in your family.

c. What are the best aspects of your family life? What are the worst?

d. Overall, what would you want to be different in your family?
6. **Wanandoa (Wazazi wa Mtoto).**  
**Couple (Child’s Parents).**

6A. **Ningependa kujua kuhusu wazazi wako. Je, wazazi wako huwasiliana vipi?**

a. Je, huwa wanagombana kuhusu nini? Ni mara ngapi huwa wanagombana?
b. Je, nini hufanyika wakati wanagombana? (Uliza kama kuna vurugu)? Unahisi vipi kuhusu hiyo?
c. Je, huwa wanagombana mbele yako ama kuongea na wewe kuhusu magombano waliyo nayo? Kama ndiyo, tafadhali peana mifano.

6A. **I would like to know about your parents. How do your parents talk?**

a. What do they quarrel about? How often do they quarrel?
b. What happens when they quarrel (Probe for violence)? How does that make you feel?
c. Do they quarrel in front of you or talk to you about the quarrels they have? If Yes, please give.
Observations

**Participant:**
How did the participant look? (dress, hygiene)

How did the participant seem to feel during the interview? Please explain.

How free did this person seem to you during the interview? Please explain.

What did you observe about the participant’s body language?

What did you observe about the participant’s tone of voice or other ways of answering the questions?

How did you, as the interviewer, feel during the interview?

**Home/Situation Environment:**
Observations of the situation relevant to your clinical assessment (e.g. the house is messy; people come by to buy home brewed alcohol; etc.).
Appendix C: Interview Rating Sheet

Tuko Pamoja: Semi-Structured Interview

RATING FORM

This form is used to record ratings and notes to explain those ratings. It should be used to record individual ratings. It should also be used to record consensus ratings after a team has reached agreement.

Household ID Number:

Date of interview: ________________________

Interviewer Name: ____________________________________________________________

Rating Date: _____________________________

Type of Rating (Circle one and fill in names):

Individual (Name: ____________________________________________________________)

Team Consensus (List names of team members:)

1.

2.

3.

4.

Final Consensus
<table>
<thead>
<tr>
<th>Domain</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Family Functioning</td>
<td>GARF Score (1-100)</td>
</tr>
<tr>
<td></td>
<td>Score Description</td>
</tr>
<tr>
<td></td>
<td>(MF, SF, SD, CD, MD)</td>
</tr>
<tr>
<td>B Couples Relationship</td>
<td>GARF Score (1-100)</td>
</tr>
<tr>
<td></td>
<td>Score Description</td>
</tr>
<tr>
<td></td>
<td>(MF, SF, SD, CD, MD)</td>
</tr>
<tr>
<td>C Caregiver-Child Relationship</td>
<td>Presence of Abuse (Yes, No)</td>
</tr>
<tr>
<td>(Male Caregiver):</td>
<td>GARP Score (1-100)</td>
</tr>
<tr>
<td></td>
<td>Score Description</td>
</tr>
<tr>
<td></td>
<td>(MF, SF, SD, CD, MD)</td>
</tr>
<tr>
<td>D Caregiver-Child Relationship</td>
<td>Presence of Abuse (Yes, No)</td>
</tr>
<tr>
<td>(Female Caregiver):</td>
<td>GARP Score (1-100)</td>
</tr>
<tr>
<td></td>
<td>Score Description</td>
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<tr>
<td></td>
<td>(MF, SF, SD, CD, MD)</td>
</tr>
<tr>
<td>E Mental Health:</td>
<td>Emotional Health Rating (1-4)</td>
</tr>
<tr>
<td>Male Caregiver</td>
<td>Behavioral Health Rating (1-4)</td>
</tr>
<tr>
<td></td>
<td>Daily Functioning Rating (1-4)</td>
</tr>
<tr>
<td>F Mental Health:</td>
<td>Clinically Sig Problem? (Y/N)</td>
</tr>
<tr>
<td>Female Caregiver</td>
<td>Emotional Health Rating (1-4)</td>
</tr>
<tr>
<td></td>
<td>Behavioral Health Rating (1-4)</td>
</tr>
<tr>
<td>G Child Mental Health</td>
<td>Daily Functioning Rating (1-4)</td>
</tr>
<tr>
<td>H Family Therapy</td>
<td>Need family therapy? (Y/N)</td>
</tr>
</tbody>
</table>
Detailed Ratings Notes

DOMAIN A: Overall Family Functioning

GARF RATING
Number (1-100): _______  Score Description: ______________________________

Notes: Please provide notes and choose one category rating (e.g. circle one of the options such as somewhat functional; somewhat dysfunctional, etc.) for the following 3 aspects (a-c), and provide your reason for category choice and numeric score.

a) Structure/Organization/Roles:

Most Functional  Somewhat Functional  Somewhat Dysfunctional
Critically Dysfunctional  Most Dysfunctional

b) Emotional Climate:

Most Functional  Somewhat Functional  Somewhat Dysfunctional
Critically Dysfunctional  Most Dysfunctional

c) Problem-Solving:

Most Functional  Somewhat Functional  Somewhat Dysfunctional
Critically Dysfunctional  Most Dysfunctional

REASON FOR SCORE (using language from manual)
DOMAIN B: Couples Relationship

GARF RATING
Number (1-100): ________  Score Description: ________________________________

Presence of Abuse: YES / NO

Explain: Please circle how severe you think the problems are in each of the following aspects (a-d) (e.g. minor problems, moderate, etc.) and provide your reasons. Then give your reason for your overall score.

a) Communication / Problem-solving

Most Functional  Somewhat Functional  Somewhat Dysfunctional
Critically Dysfunctional  Most Dysfunctional

b) Conflict Resolution (includes level of violence)

Most Functional  Somewhat Functional  Somewhat Dysfunctional
Critically Dysfunctional  Most Dysfunctional

c) Parenting Teamwork / Consistency / Support

Most Functional  Somewhat Functional  Somewhat Dysfunctional
Critically Dysfunctional  Most Dysfunctional

d) Emotional Closeness / Attachment / Trust

Most Functional  Somewhat Functional  Somewhat Dysfunctional
Critically Dysfunctional  Most Dysfunctional

REASON FOR SCORE (Using language from manual):

136
DOMAIN C: Male Caregiver

GARF RATING
Number (1-100): _______ Score Description: ______________________________

Presence of Abuse: YES / NO

Explain: Please circle how severe you think the problems are in each of the following aspects (a-d) (e.g. minor problems, moderate, etc.) and provide your reasons. Then give your reason for your overall score.

a) Communication / Time Together

Most Functional Somewhat Functional Somewhat Dysfunctional
Critically Dysfunctional Most Dysfunctional

b) Emotional Closeness / Attachment

Most Functional Somewhat Functional Somewhat Dysfunctional
Critically Dysfunctional Most Dysfunctional

c) Discipline Strategies / Harsh Treatment (includes consideration of harsh treatment / abuse and use of effective strategies)

Most Functional Somewhat Functional Somewhat Dysfunctional
Critically Dysfunctional Most Dysfunctional

d) Consistency of effort to provide for needs/promote safety

Most Functional Somewhat Functional Somewhat Dysfunctional
Critically Dysfunctional Most Dysfunctional

REASON FOR SCORE (using language from manual)
DOMAIN D: Female Caregiver

GARF RATING
Number (1-100): ________ Score Description: __________________________

Presence of Abuse: YES / NO

Explain: Please circle how severe you think the problems are in each of the following aspects (a-d) (e.g. minor problems, moderate, etc.) and provide your reasons. Then give your reason for your overall score (part e).

a) Communication / Time Together
   - Most Functional
   - Somewhat Functional
   - Somewhat Dysfunctional
   - Critically Dysfunctional
   - Most Dysfunctional

b) Emotional Closeness / Attachment
   - Most Functional
   - Somewhat Functional
   - Somewhat Dysfunctional
   - Critically Dysfunctional
   - Most Dysfunctional

c) Discipline Strategies / Harsh Treatment (includes consideration of harsh treatment / abuse and use of effective strategies)
   - Most Functional
   - Somewhat Functional
   - Somewhat Dysfunctional
   - Critically Dysfunctional
   - Most Dysfunctional

d) Consistency of effort to provide for needs/promote safety
   - Most Functional
   - Somewhat Functional
   - Somewhat Dysfunctional
   - Critically Dysfunctional
   - Most Dysfunctional

REASON FOR SCORE (using language from manual):
DOMAIN E, F, G: Individual Emotional and Behavioral Health

E: Male Caregiver’s Mental Health

EMOTIONAL HEALTH
Based on your clinical judgment, please rate this person’s psychological health. Consider mood/feelings (hisia), stress (mawazo mengi), sadness (huzuni), thinking too much (unafikiria sana) and other bad feelings (hisia mbaya).

1 2 3 4
Very poor Excellent
Severe symptoms No symptoms

Notes:

BEHAVIORAL HEALTH
Based on your clinical judgment, please rate this person’s behavioral health. Consider “tabia”, or bad behaviors (tabia mbaya), like fighting (kupigana), using alcohol or drugs (kutumia pombe au madawa), or breaking rules or the law (kuvunja sharia).

1 2 3 4
Very poor Excellent
Severely negative behavior No negative behavior

Notes:

DAILY FUNCTIONING
Based on your clinical judgment, please rate how this person is doing in the normal things of life, like daily work (kazi ya kila siku), getting along with other people (kushirikiana na watu), and enjoying things (kufurahia vitu).

1 2 3 4
Very Poor Excellent
Severe problems in daily tasks Doing well in daily tasks

Notes:
CLINICALLY SIGNIFICANT PROBLEM?
Based on your overall clinical judgment, does this person have an emotional or behavioral problem that negatively affects their functioning?

Yes / No

Notes:

F: Female Caregiver’s Mental Health

EMOTIONAL HEALTH
Based on your clinical judgment, please rate this person’s psychological health. Consider mood/feelings (hisia), stress (mawazo mengi), sadness (huzuni), thinking too much (unafikiria sana) and other bad feelings (hisia mbaya).

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very poor</td>
<td>Excellent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Severe symptoms</td>
<td>No symptoms</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:

BEHAVIORAL HEALTH
Based on your clinical judgment, please rate this person’s behavioral health. Consider “tabia”, or bad behaviors (tabia mbaya), like fighting (kupigana), using alcohol or drugs (kutumia pombe au madawa), or breaking rules or the law (kuvunja sharia).

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very poor</td>
<td>Excellent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Severely negative behavior</td>
<td>No negative behavior</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
DAILY FUNCTIONING
Based on your clinical judgment, please rate how this person is doing in the normal things of life, like daily work (kazi ya kila siku), getting along with other people (kushirikiana na watu), and enjoying things (kufurahia vitu).

1 2 3 4
Very Poor Severe problems in daily tasks Excellent Doing well in daily tasks

Notes:

CLINICALLY SIGNIFICANT PROBLEM?
Based on your overall clinical judgment, does this person have an emotional or behavioral problem that negatively affects their functioning?

Yes / No

Notes:

G: Target Child’s Mental Health

EMOTIONAL HEALTH
Based on your clinical judgment, please rate this person’s psychological health. Consider mood/feelings (hisia), stress (mawazo mengi), sadness (huzuni), thinking too much (unafikiria sana) and other bad feelings (hisia mbaya).

1 2 3 4
Very poor Severe symptoms Excellent No symptoms

Notes:
BEHAVIORAL HEALTH
Based on your clinical judgment, please rate this person’s behavioral health. Consider “tabia”, or bad behaviors (tabia mbaya), like fighting (kupigana), using alcohol or drugs (kutumia pombe au madawa), or breaking rules or the law (kuvunja sharia).

1 2 3 4
Very poor Excellent
Severely negative behavior No negative behavior

Notes:

DAILY FUNCTIONING
Based on your clinical judgment, please rate how this person is doing in the normal things of life, like daily work (kazi ya kila siku), getting along with other people (kushirikiana na watu), and enjoying things (kufurahia vitu).

1 2 3 4
Very poor Excellent
Severely problems in daily tasks Doing well in daily tasks

Notes:

CLINICALLY SIGNIFICANT PROBLEM?
Based on your overall clinical judgment, does this person have an emotional or behavioral problem that negatively affects their functioning?

Yes / No

Notes:
Domain H: Need for Family Counseling:
* Not related to financial needs

Professional Opinion: Do you think this family needs family counseling?

YES / NO / DON'T KNOW

Reason: WHY do they need counseling?

Suggestion: What would you suggest for the counseling (type of counseling or goals)?

If you were not completely sure whether to choose YES or NO, please explain why you were uncertain:
### Appendix D: Codebook with Utilized Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Tier 2 Code</th>
<th>Description</th>
<th>Inclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure, Organization, and Roles</td>
<td>Tier 2 Code</td>
<td>Ways in which a family organizes itself to accomplish demands of life; includes routines, organization, roles and responsibilities, boundaries, hierarchies, favoritism/discrimination, alliances</td>
<td>Daily/regularly scheduled activities, level of planning and/or unity in approach to daily life and tasks, who is expected to perform certain tasks/duties, play certain roles, be responsible for certain parts of family life, ways that a family separates types of relationships in the family in terms of appropriate closeness and communication, arrangements of authority/power, bonds between members of the family, can be appropriate or inappropriate</td>
</tr>
<tr>
<td>Emotional Climate</td>
<td>Tier 2 Code</td>
<td>Types and levels of feelings and emotions that exist among and between family members, as well as the shared values within the family; includes warmth/caring/peace, negative emotions, unified/shared values</td>
<td>Level of positive or negative feelings between family members, behaviors that show positive or negative feelings feelings, overall sense of calm in household, level of shared opinions on what is important in life (e.g. morals), relative sense of being a team facing life together</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>Tier 2 Code</td>
<td>How the family members work together to make decisions and solve problems, as well as who is involved and satisfaction with the process; includes system for decision making, problem solving, conflicts, and adaptation to stressful circumstances</td>
<td>How choices are made, who is involved, how well they communicate, how much they agree, family response when something negative happens, both small and large problems, communication about negative things, effectiveness of and satisfaction with solutions, frequency/intensity of conflicts, family response to stressful circumstances</td>
</tr>
<tr>
<td>Communication and Problem Solving</td>
<td>Tier 2 Code</td>
<td>How well a couple communicates with each other, both in general and when facing a problem or issue</td>
<td>How a couple shares information and ideas, amount/quality of conversations, non-verbal communication, way that the couple responds to a problem, identifying a problem and finding a solution, satisfaction with process,</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Conflict Resolution</th>
<th>How a couple responds when they disagree on something, or when they do things that the other person does not like</th>
<th>Degree of agreement between couple, presence or lack of violence (verbal or physical), level of satisfaction with how agreements are handled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parenting Teamwork</td>
<td>Extent to which the parents are working together to provide good care and discipline for their children</td>
<td>Consistency with each other in how children are handled, opinion of the each other’s parenting (e.g., thinking the other person is a good parent), level of support of other parent’s decisions, consistency in parenting between individuals, level of support and involvement in the other parent’s parenting decisions, level of satisfaction with how partners work together, whether the system is leading to positive parenting</td>
</tr>
<tr>
<td>Emotional Closeness</td>
<td>Emotional aspect of the marital relationship; can capture a variety of ways in which couples express their emotional feelings towards each other</td>
<td>How much love they feel, how connected they feel emotionally, level of trust, sexual relationship quality, level of satisfaction</td>
</tr>
<tr>
<td>Couple Separation</td>
<td>Physical separation of partners’ living situations</td>
<td>Couple living apart in separate dwellings, potentially with a different partner but not necessarily; could be separation or divorce; does not include absence due to employment out of town or death</td>
</tr>
<tr>
<td>Harsh Verbal Treatment</td>
<td>Verbal behaviors towards spouse that are harsh in terms of potentially causing undue harm, fear, negative emotions; includes threats</td>
<td>Insults, degrading comments, yelling, threatening, criticizing, general &quot;emotional&quot; or &quot;verbal&quot; abuse</td>
</tr>
<tr>
<td>Harsh Physical Treatment</td>
<td>Anything physically aggressive (whether actually hurts the other person or not) between spouses; threatened physical violence (double code with verbal/emotional abuse) / fear of physical violence</td>
<td>Physical spouse abuse, chasing wife with a panga (machete), drugging spouse, murdering spouse, being afraid husband will beat wife</td>
</tr>
<tr>
<td>Male Caregiver-Child Relationship</td>
<td>Harsh Sexual Treatment</td>
<td>Communication and Time Together</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Forced sexual activity of any kind, including forced acts within consensual sex or physically harmful acts done within consensual sex; Also includes physical abuse used before sex to force spouse to have sex (would be double coded with physical violence)</td>
<td>Forced sex, rape, harmful acts during sex</td>
<td>How well and how often the child and the male caregiver talk and spend time with each other</td>
</tr>
<tr>
<td>Number of conversations/amount of time spent together, quality of conversations/time spent together, talk with love, praising, quarrelling, fighting, nagging, keeping secrets, listening, parent advising on sex/HIV or other topics, child’s satisfaction, caregiver’s satisfaction, being physically in the same place, general &quot;spending time&quot; together, doing chores together, parent helping child with schoolwork</td>
<td>Love and closeness, dislike or distance, warmth, level of trust, child’s sense of comfort or safety with caregiver, child’s happiness they feel when around their caregiver, acknowledgement, recognizing positive child behaviors, father approachable, close parent child relationship, child trusting parents, parents ignore child, parents transfer stress to child</td>
<td>Effectiveness of discipline is at correcting behavior, use of positive discipline strategies, use of negative discipline strategies, attempts at discipline (even if unsuccessful)</td>
</tr>
<tr>
<td>Male Caregiver Abuse</td>
<td>Harsh Verbal Treatment</td>
<td>Caregiver verbal behaviors that are harsh in terms of potentially causing undue harm, fear, negative emotions, or other negative outcomes in the child.</td>
</tr>
<tr>
<td>---------------------</td>
<td>------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Harsh Physical Treatment</td>
<td>Caregiver behaviors that are harsh in terms of potentially causing physical harm or pain to a child.</td>
<td>Hard labor, any beating or corporal punishment, genital injury, force-feeding, burning with an iron, caging</td>
</tr>
<tr>
<td>Sexual Abuse</td>
<td>Caregiver’s sexual behavior towards a child; does not include descriptions of a caregiver’s lust towards a child, must be a physical act</td>
<td>Rape, incest, molestation</td>
</tr>
<tr>
<td>Other Harsh Treatment</td>
<td>Harsh treatment by a caregiver towards a child that is not directly physical, sexual or emotional. Not necessarily in response to misbehavior, can be general bad, (not verbal/physical); general statements of “harsh parenting”</td>
<td>Overworking child (but does not seem to be causing physical harm); locking child out of house, chasing child away from house, sending child out late to run errands, keeping child out of school for work, denying food</td>
</tr>
<tr>
<td>Communication and Time Together</td>
<td>How well and how often the child and the female caregiver talk and spend time with each other</td>
<td>Number of conversations/amount of time spent together, quality of conversations/time spent together, talk with love, praising, quarrelling, not fighting, nagging, keeping secrets, listening, parent advising on sex/HIV or other topics, child’s satisfaction, caregiver’s satisfaction, being physically in the same place, playing rocks with a parent, general “spending time”, walking together, doing chores together, parent helping child with schoolwork</td>
</tr>
<tr>
<td>Female Caregiver-Child Relationship</td>
<td>Emotional Closeness</td>
<td>Emotional aspect of the relationship between the female caregiver and the child</td>
</tr>
<tr>
<td>Discipline Strategies</td>
<td>How effective the discipline is at correcting behavior, use of positive discipline strategies, use of negative discipline strategies, attempts at discipline (even if unsuccessful)</td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Consistency of Effort</td>
<td>Consistency of effort to provide basic needs (food, clothing, etc.), consistency of effort to provide access to education, knowing where the child is, not watching the child, checking homework/school performance, knowing child's friends</td>
<td></td>
</tr>
<tr>
<td>Harsh Verbal Treatment</td>
<td>Wrongly accusing child, yelling, criticizing, disrespecting dead parent, making disowning/distancing statements, insulting child, threatening abuse, verbal abuse</td>
<td></td>
</tr>
<tr>
<td>Harsh Physical Treatment</td>
<td>Hard labor, any beating or corporal punishment, genital injury, force-feeding, burning with an iron, caging</td>
<td></td>
</tr>
<tr>
<td>Female Caregiver Abuse</td>
<td>Rape, incest, molestation</td>
<td></td>
</tr>
<tr>
<td>Other Harsh Treatment</td>
<td>Overworking child (but does not seem to be causing physical harm); locking child out of house, chasing child away from house, sending child out late to run errands, keeping child out of school for work, denying food</td>
<td></td>
</tr>
<tr>
<td>Male Caregiver Well-Being</td>
<td>Mood/feelings, stress, sadness, negative thoughts/thinking too much, bad feelings, withdrawal/isolation, frustration, disappointment in life, happy, jovial, free from stress, satisfied</td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Description</td>
<td>With life, physical symptomatology related to emotional health</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------</td>
</tr>
<tr>
<td>Behavioral Health</td>
<td>Male caregiver’s negative behaviors (or traits); these typically affect others or are done in response to others; often these are behaviors that break rules/laws/social norms</td>
<td>Bad behaviors, fighting, aggression, stealing, corrupt activities, substance use/abuse (alcohol, drugs), breaking rules or the law</td>
</tr>
<tr>
<td>Substance Abuse</td>
<td>Male caregiver’s use and/or abuse of drugs, alcohol, tobacco</td>
<td>Drinking, smoking, doing hard drugs, repercussions of drug/alcohol use</td>
</tr>
<tr>
<td>Daily Functioning</td>
<td>Male caregiver’s social, occupational, and psychological functioning; e.g., how well he is meeting various requirements of daily life</td>
<td>Performance at work, completing duties at home, getting along with other people, enjoying things (things that are typically enjoyable, things that were previously enjoyed)</td>
</tr>
<tr>
<td>Emotional Health</td>
<td>Emotional health and well-being of the female caregiver; female caregiver’s overall psychological/affective state (positive or negative)</td>
<td>Mood/feelings, stress, sadness, negative thoughts/thinking too much, bad feelings, withdrawal/isolation, frustration, disappointment in life, happy, jovial, free from stress, satisfied with life, physical symptomatology related to emotional health</td>
</tr>
<tr>
<td>Female Caregiver Well-Being</td>
<td>Female caregiver’s negative behaviors (or traits); these typically affect others or are done in response to others; often these are behaviors that break rules/laws/social norms</td>
<td>Bad behaviors, fighting, aggression, stealing, corrupt activities, substance use/abuse (alcohol, drugs), breaking rules or the law</td>
</tr>
<tr>
<td>Substance Abuse</td>
<td>Female caregiver’s use and/or abuse of drugs, alcohol, tobacco</td>
<td>Drinking, smoking, doing hard drugs, repercussions of drug/alcohol use</td>
</tr>
<tr>
<td>Daily Functioning</td>
<td>Female caregiver’s social, occupational, and psychological functioning; e.g., how well she is meeting various requirements of daily life</td>
<td>Performance at work, completing duties at home, getting along with other people, enjoying things (things that are typically enjoyable, things that were previously enjoyed)</td>
</tr>
</tbody>
</table>
| Child Well-Being          | Any mention of a child’s feelings / emotional well-being that is positive or negative | Negative thoughts, bitterness, sorrowful, unhappy, depressed, weeps, frustrated, disappointed by life, worry, stressed, suicidality/suicide, "not supposed
| Behavioral Health | Child’s negative behaviors (or traits) - these typically affect others or are done in response to others, and often these are behaviors that break rules/laws/social norms and/or behaviors that go against authority figures; also includes mentions of positive/prosocial behavior | Rude, does not listen to adults/disobedient, selfish, mean, fighting with siblings/peers/parents, bullying, behaves "harshly", aggression, stealing, hyperactive, cannot settle down, defiant, dealing drugs, roaming, challenges boundaries; Child’s POSITIVE social behaviors that help others, make others pleased with his/her social responses to situations in which there are ways to help or please others |
| Daily Functioning | Child’s social, occupational, and psychological functioning; e.g., how well he/she is is doing in daily life | Performance at school, completing duties at home, getting along with peers/siblings/other people, enjoying things (things that are typically enjoyable, things that were previously enjoyed), |
Appendix E: Mental Health Survey Items

Table 9: Mental Health Survey Item Gradient Scores

<table>
<thead>
<tr>
<th>Item</th>
<th>Reporter</th>
<th>Case Endorsement Proportion</th>
<th>Non-Case Endorsement Proportion</th>
<th>Item Gradient Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBCL/YSR 1</td>
<td>Child Self-Report</td>
<td>0.400</td>
<td>0.167</td>
<td>0.233</td>
</tr>
<tr>
<td></td>
<td>Male Caregiver</td>
<td>0.100</td>
<td>0.000</td>
<td>0.100</td>
</tr>
<tr>
<td></td>
<td>Female Caregiver</td>
<td>0.700</td>
<td>0.417</td>
<td>0.283</td>
</tr>
<tr>
<td></td>
<td>Caregivers Combined</td>
<td>0.350</td>
<td>0.250</td>
<td>0.100</td>
</tr>
<tr>
<td></td>
<td>Child Self-Report</td>
<td>0.100</td>
<td>0.000</td>
<td>0.100</td>
</tr>
<tr>
<td>CBCL/YSR 3</td>
<td>Male Caregiver</td>
<td>0.300</td>
<td>0.167</td>
<td>0.133</td>
</tr>
<tr>
<td></td>
<td>Female Caregiver</td>
<td>0.500</td>
<td>0.500</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Caregivers Combined</td>
<td>0.400</td>
<td>0.333</td>
<td>0.067</td>
</tr>
<tr>
<td></td>
<td>Child Self-Report</td>
<td>0.500</td>
<td>0.000</td>
<td>0.500</td>
</tr>
<tr>
<td>CBCL/YSR 4</td>
<td>Male Caregiver</td>
<td>0.300</td>
<td>0.250</td>
<td>0.050</td>
</tr>
<tr>
<td></td>
<td>Female Caregiver</td>
<td>0.700</td>
<td>0.500</td>
<td>0.200</td>
</tr>
<tr>
<td></td>
<td>Caregivers Combined</td>
<td>0.500</td>
<td>0.375</td>
<td>0.125</td>
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<tr>
<td></td>
<td>Child Self-Report</td>
<td>0.500</td>
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<td>0.500</td>
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<tr>
<td>CBCL/YSR 8</td>
<td>Male Caregiver</td>
<td>0.300</td>
<td>0.417</td>
<td>-0.117</td>
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<tr>
<td></td>
<td>Female Caregiver</td>
<td>0.500</td>
<td>0.417</td>
<td>0.083</td>
</tr>
<tr>
<td></td>
<td>Caregivers Combined</td>
<td>0.400</td>
<td>0.4177</td>
<td>-0.017</td>
</tr>
<tr>
<td></td>
<td>Child Self-Report</td>
<td>0.900</td>
<td>0.833</td>
<td>0.067</td>
</tr>
<tr>
<td>CBCL/YSR 10</td>
<td>Male Caregiver</td>
<td>0.300</td>
<td>0.25</td>
<td>0.050</td>
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<tr>
<td></td>
<td>Female Caregiver</td>
<td>0.500</td>
<td>0.417</td>
<td>0.083</td>
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<tr>
<td></td>
<td>Caregivers Combined</td>
<td>0.400</td>
<td>0.333</td>
<td>0.067</td>
</tr>
<tr>
<td></td>
<td>Child Self-Report</td>
<td>0.200</td>
<td>0.000</td>
<td>0.200</td>
</tr>
<tr>
<td>CBCL/YSR 20</td>
<td>Male Caregiver</td>
<td>0.100</td>
<td>0.167</td>
<td>-0.067</td>
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<tr>
<td></td>
<td>Female Caregiver</td>
<td>0.500</td>
<td>0.167</td>
<td>0.333</td>
</tr>
<tr>
<td></td>
<td>Caregivers Combined</td>
<td>0.300</td>
<td>0.167</td>
<td>0.133</td>
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<tr>
<td></td>
<td>Child Self-Report</td>
<td>0.400</td>
<td>0.083</td>
<td>0.317</td>
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<tr>
<td>CBCL/YSR 22</td>
<td>Male Caregiver</td>
<td>0.100</td>
<td>0.083</td>
<td>-0.017</td>
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<tr>
<td></td>
<td>Female Caregiver</td>
<td>0.400</td>
<td>0.167</td>
<td>0.233</td>
</tr>
<tr>
<td></td>
<td>Caregivers Combined</td>
<td>0.250</td>
<td>0.125</td>
<td>0.125</td>
</tr>
<tr>
<td></td>
<td>Child Self-Report</td>
<td>0.100</td>
<td>0.000</td>
<td>0.100</td>
</tr>
<tr>
<td>CBCL/YSR 23</td>
<td>Male Caregiver</td>
<td>0.100</td>
<td>0.000</td>
<td>0.100</td>
</tr>
<tr>
<td></td>
<td>Female Caregiver</td>
<td>0.300</td>
<td>0.000</td>
<td>0.300</td>
</tr>
<tr>
<td></td>
<td>Caregivers Combined</td>
<td>0.200</td>
<td>0.000</td>
<td>0.200</td>
</tr>
<tr>
<td>CBCL/YSR 35</td>
<td>Child Self-Report</td>
<td>0.400</td>
<td>0.000</td>
<td>0.400</td>
</tr>
<tr>
<td>CBCL/YSR</td>
<td>Child Self-Report</td>
<td>Male Caregiver</td>
<td>Female Caregiver</td>
<td>Caregivers Combined</td>
</tr>
<tr>
<td>----------</td>
<td>------------------</td>
<td>----------------</td>
<td>----------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>41</td>
<td>0.400</td>
<td>0.300</td>
<td>0.400</td>
<td>0.500</td>
</tr>
<tr>
<td>50</td>
<td>0.400</td>
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<tr>
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References


UNICEF. (2005, April 14). Multiple Indicator Cluster Surveys. UN Division for the Advancement of Women.


