Exploring Psychosocial Well-being and Social Connectedness in Northern Uganda

Working Paper No. 2

April 2013

Dr. Rebecca Horn
Exploring Psychosocial Well-being and Social Connectedness in Northern Uganda

Working Paper No. 2

Dr. Rebecca Horn

April 2013
# Table of Contents

Exploring Psychosocial Well-being and Social Connectedness in Northern Uganda ................................................................. 3

Abstract ................................................................................................................................................................................. 3

Objective of Paper ............................................................................................................................................................... 3

Background ........................................................................................................................................................................... 3

Methodology ........................................................................................................................................................................ 6
  Data Collection ................................................................................................................................................................. 6
  Procedure ......................................................................................................................................................................... 7
  Data Analysis ..................................................................................................................................................................... 8

Development of Interview Schedule ................................................................................................................................. 8
  Development of First Draft of Interview Schedule ........................................................................................................... 8
  Review Draft Interview Schedule with Key People and Revise ........................................................................................ 9
  Translation of the Interview Schedule ............................................................................................................................... 9
  Informal Testing ................................................................................................................................................................. 9

Testing the Validity and Reliability of Tools Measuring Psychological Distress and Social Connectedness ................................. 9
  Reliability Assessments ..................................................................................................................................................... 11
  Validity Assessments ......................................................................................................................................................... 11

Discussion ............................................................................................................................................................................. 12

Conclusions and Implications for Research and Practice .................................................................................................. 14

Next Steps: ......................................................................................................................................................................... 15

References ............................................................................................................................................................................ 16

Appendixes

Appendix 1. Reduced Version of Interview Schedule (Psychosocial Distress and Social Connectedness Sections Only) for Validity and Reliability Check ................................................................. 19

Appendix 2. Reduced Version of Interview Schedule (Psychosocial Distress and Social Connectedness Sections Only) for Validity and Reliability Check (Luo Translation) ................................. 25
Abstract

This paper describes research conducted as the first stage in the process of developing a structured interview schedule to assess psychological distress, empowerment, social connectedness, economic well-being, and other variables among women in the Acholi region of Uganda.

An interview schedule was developed following a review of the literature, individual interviews with women in northern Uganda, and group discussions with community members, members of women's groups, and community leaders. Following initial testing of the entire interview schedule, the reliability and validity of two sections—measures of psychological distress and social connectedness—were explored in more detail.

Initial analysis suggests that both are potentially useful with this population. However, the measure of psychological distress did not distinguish clearly between a group of women identified by a local community-based organization (CBO) as showing signs of psychological distress and a group of women showing no such signs. Additional work is required to confirm the validity of the psychological distress scale used.

It was found that psychological well-being was more closely associated with the amount of social support a woman receives than with how many social activities or groups she is involved with. Involvement in groups may not, in itself, alleviate psychological distress, but the practical and emotional support provided by friends, neighbors, and relatives is likely to have a positive effect. Some evidence was found that there is a relationship between involvement in religious activities and psychological well-being. Psychological distress is often accompanied by poor physical health. Although further research is required to clarify the nature of these relationships, initial findings suggest that organizations that aim to improve psychological well-being would do well to address physical health problems as a priority, and may wish to explore ways in which women experiencing psychological distress could link with religious organizations.

Objective of Paper

This paper describes research conducted as the first stage in the process of developing a structured interview schedule to assess psychological distress, empowerment, social connectedness, economic well-being, and other variables among women in the Acholi region of Uganda.

This paper aims to:

- Report on the process of developing and testing tools to measure psychological well-being and social connectedness with women in the Acholi region of northern Uganda.
- Explore the relationship between psychological well-being and social connectedness in this population.

Background

Psychologists and psychiatrists became interested in alleviating the psychological effects of exposure to traumatic experiences after World War I, when many soldiers suffered from symp-
toms that could not be explained by physical injury. Later, with the development of psychological theory and greater attention to the emotional and mental problems of the soldiers in World War II and of survivors of the Nazi concentration camps, doctors concluded that there were psychological reasons for physical illnesses following very distressing experiences. Psychosocial issues became the subject of even greater interest when Vietnam War veterans returned to the United States from the 1970s onwards, often with a range of negative emotions and behaviors.

In these early stages, most researchers and practitioners had a medical background, and applied their understanding of physical trauma to the mind. As the field has developed, there has been a shift toward a more holistic psychosocial understanding of the effects of conflict on both individuals and communities. The Psychosocial Working Group (PWG 2003) has developed a conceptual framework that understands psychosocial well-being in terms of three central resource domains: human capacity, social ecology, and culture and values.

One of the core domains of the PWG framework is “human capacity,” which includes the health (physical and mental) and knowledge and skills of an individual. A second core domain is the culture and values of a community, including traditional ways of life and cultural institutions as well as cultural values and norms, all of which provide a meaningful framework within which people are able to make sense of their experiences and live their lives. The third core domain, and the one that this paper focuses on, is social ecology, which recognizes that individuals are usually embedded in a network of social relations, and that these are central to their identity and sense of belonging. Social relations can facilitate access to resources and enable participation in activities at the family, community, and national levels.

Social ecology is a key element of all understandings of psychosocial well-being (for example, Becker and Weyermann 2006; PADHI 2009), and there is strong empirical evidence linking mental health outcomes to the presence of effective social engagement (PWG 2003; Miller and

**Figure 1. Model of Psychosocial Well-Being**

![Figure 1. Model of Psychosocial Well-Being](source: PWG 2003)
Perceived social support (usually defined as the instrumental, expressive, informational, and/or emotional functions performed for an individual by family members, friends, or other significant people) has consistently been shown to be a critical factor in mediating the effects of stressors (Cohen and Willis 1985; House, Umberson, and Landis 1988; Irwin and others 2008; Kessler and McLeon 1985; Taylor and Lynch 2004). Social support (even the perception that one has good social support) plays an important role in the protection against the pathological impact of stressors and may enhance the factors that contribute toward greater resilience (Ottman, Dickson, and Wright 2006; Williams and Galliher 2006). Involvement in religious activities has commonly been found to be related to lower levels of psychological distress (for example, Irwin and others 2008), perhaps because this type of social connectedness enables people to tap into a resource base that assists them not only with emotional coping but also in getting practical help with their problems. In addition, family support has been found to have a particularly strong influence on psychological well-being (Mulvaney-Day, Alegria, and Sribney 2007; Person and others 2007; Zhang and Ta 2009).

But doubts have recently been expressed about the effects of social connectedness and social capital on psychological well-being in situations where people’s networks are resource poor (Irwin and others 2008; Mulvaney-Day, Alegria, and Sribney 2007). In addition, social connectedness can, in some circumstances, have negative effects on psychological well-being. For example, individuals who are strongly embedded in a social network may find that other members of the network make excessive demands on them, or that their own freedom is curtailed in ways that cause frustration and anxiety.

Conflict often disrupts the social ecology of a community, including social relations within families, peer groups, and religious and cultural institutions, as well as links with civic and political authorities. Violent conflict can foster attitudes of distrust and hostility, can destroy previously supportive social relations, and can undermine faith in social institutions and organizations (Miller and Rasco 2004). For example, social networks in villages in central Nepal were reported to be constricted owing to increased levels of suspicion of neighbors and acquaintances (Pettigrew 2002, cited in Tol and others 2010). Women in Mozambique described how the war between 1977 and 1992 deprived them of the daily practices, kinship arrangements, social rules, and obligations that had given them a sense of purpose and dignity and anchored their sense of identity (Sideris 2003). Impacts on the social ecology of an affected community frequently include changes in power relations between ethnic groups and shifts in gender relations (PWG 2003; Payne 1998).

The disruption to social structures in conflict situations, especially where people are displaced, can increase people’s social isolation, which is a major risk factor for adverse mental and physical health outcomes (Brummet and others 2001; Chesney and Darbes 1998; House 2001—all cited in Miller and Rasmussen 2010). Women’s attainment of postwar well-being has been found to be strongly associated with the social support available to them (Deacon and Sullivan 2010; Klariç and others 2008).

Given the evidence that social support has a positive impact on psychological well-being, many organizations working in post-conflict settings implement programs designed to enhance social connectedness. There is a need to evaluate the effectiveness of these programs, both in terms of the extent to which they increase social connectedness and what impact this has on psychological well-being. But one of the challenges of conducting such evaluations in non-Western settings is that there are few measures of psychological well-being and social connectedness that are appropriate for their populations, as discussed below.

While there are many measures of mental health and psychological well-being (for example, the Hopkins Symptom Checklist-25 [HSCL], General Health Questionnaire [GHQ], Beck Depression Inventory, and Structured Clinical Interview for
the DSM-IV), these have usually not been validated in the contexts in which they are used, and may not address the issues of concern to the communities in those areas (Jordans and others 2009; Summerville 2007 and 2008). In some circumstances, etic (or “outside”) measures of psychopathology may be useful for non-Western populations, but a reliance on the language and constructs of Western psychiatry risks inappropriately prioritizing psychiatric syndromes that are familiar to Western practitioners (for example, PTSD) but which may be of secondary concern, or simply lack meaning to non-Western populations for whom local idioms of psychological distress are more salient (Miller and others 2006; Miller, Kulkarni, and Kushner 2006).

Bass, Bolton, and Murray (2007: 918) write that the “investigation of local syndromes thus becomes a necessary initial step in the evaluation of the validity and utility of concepts and instruments developed in different contexts.” Where there is evidence that psychological distress is expressed in a form similar to that in cultures for which there are standardized instruments, the use of such instruments makes sense (see, for example, Bolton, Wilk, and Ngogoni 2004). Where the evidence suggests poor agreement, new instruments need to be developed. Where there are little or no data on agreement, additional information must be collected. There is now a consensus that effective assessment of mental health and psychosocial well-being must be based on initial identification of patterns of distress among the relevant population (Davidson, Murray, and Schweitzer 2010; Rasco and Miller 2004).

Methodology

Data Collection

Three methods were used to collect the information required to develop the social connectedness and psychological distress assessment tools used in this study:

- Review of the literature and of relevant surveys/assessment tools
- Group discussions (with community members, members of women’s groups, and community leaders)
- Case study interviews with individual community members

Review of the literature and of relevant surveys/assessment tools

A review was conducted of other relevant studies undertaken in northern Uganda and other African post-conflict settings. Where possible, the assessment tools used were obtained (either from a published source or through contact with the authors) for reference. Particularly useful tools include:

- The Survey of War Affected Youth (SWAY) form (Annan and others 2008). The SWAY is a research program in northern Uganda dedicated to understanding the scale and nature of war violence, the effects of war on youth, and the evaluation of programs to help community members recover, reintegrate, and develop after conflict. The second phase of their program focused on female youth, and their survey form is available on their website (http://www.sway-uganda.org/Survey.SWAYII.English.Final.doc).
- African Youth Psychosocial Assessment (Acholi version) (Betancourt and others 2009a, b). The APYA was developed and validated in northern Uganda to assess behaviors related to depression and anxiety among war-affected adolescents.
- The Social Capital Assessment Tool (adapted version) used in Rwanda (Verduin and others 2010).
- Pronyk and others (2006) developed tools, including a measure of social connectedness, to evaluate a program in South Africa.
- The SF-8 was used by Roberts and others

Group discussions

Group discussions with community members, women’s groups, and community leaders were held to develop an understanding of key issues, including social connectedness.

Case study interviews

Jon Hubbard and the Center for Victims of Torture (CVT) developed a means of assessing children’s well-being using locally relevant criteria (Hart and others, 2007). Members of a target group/community are asked to think of a child they know who, in their view, is doing well, and then list the things about this child that indicate to them that he or she is doing well. The characteristics that emerge from this process can then be used as indicators of well-being. Since participants are asked to describe the characteristics of real children, the indicators are likely to be attainable and realistic, rather than abstract ideals. This method has been adapted for use with adults, and has been widely used as the first stage of developing culturally valid measures of psychosocial well-being (for example, Fernando 2008). For example, Miller and others (2006) used individual interviews based on this methodology to identify salient traumatic experiences in Afghanistan, as well as other types of stressors and indicators of psychological distress. They used this information to develop items on a questionnaire to assess mental health that they later validated for use with Afghan men and women.

In the current study, this methodology was used (called here “case study interviews”) to develop a measure of psychological distress. This methodology, based on that used by Miller and others (2006), involved asking each respondent to think of two women he or she knows personally, both of whom have suffered emotionally because of difficult life experiences:

- One woman should be someone who has recovered and is now functioning well despite the hardships she has endured.
- The other woman should be someone who has continued to suffer despite the passing of time.
- The respondent was then asked to tell the interviewer about the two people in detail, focusing particularly on:
  - The difficult life events they have experienced
  - How they have been affected (thoughts, feelings, behavior)
  - Signs that indicate that the first woman is still suffering
  - Signs that indicate that the second woman has now recovered
  - Why they think the first woman recovered, and the second is still having difficulties

Procedure

Six research assistants (four female and two male) and one translator were recruited, all of whom were fluent in both English and the local language (Acholi). All seven participated in three days’ training prior to the data collection phase. Between April 26 and 29, 2011, the research team visited four villages: one in Kitgum, one in Pader, and two in Gulu district (one rural and one urban).

Individual interviews

A total of 27 case study interviews were conducted over this four-day period: seven in Pader, Kitgum and the urban Gulu village, and six in the rural Gulu village.

Respondents were selected for the individual interviews on an opportunity basis. Interviewers approached people as they were going about their everyday tasks and invited them to participate in
the interview. An “informed consent” sheet was created that contained information about the research and about the individual interviews. This information was given verbally to each potential respondent before he or she was asked whether he or she was willing to participate.

Each interviewer aimed to conduct three interviews per day, to include at least one older and one younger respondent each day, and those who may be more marginalized (for example, people with disabilities). They conducted all interviews in Acholi, and made notes at the time of the interview either in English or Acholi. These notes were reviewed and enhanced immediately after the interview (and translated into English where necessary) and given to the lead investigator at the end of each day for checking and data entry.

The average (mean) age of respondents was 34.8 years (minimum age = 20, maximum = 70). The two male research assistants interviewed men, and the four female research assistants interviewed women; therefore approximately one-third of respondents were male.

Group discussions

The lead investigator conducted all group discussions, with the assistance of the translator. In each location, discussions were conducted with three types of people: community leaders, community members and women’s group members. A total of 31 community leaders participated in group discussions, 39 community members, and 28 members of women’s groups. The community leaders who participated in the discussions included local council officials, women’s leaders, cultural leaders, religious leaders, community-based facilitators, and youth leaders. The lead investigator made detailed notes at the time of the group discussions, which were reviewed and revised immediately after each discussion was concluded.

Data Analysis

The case study interviews provided information about respondents’ perceptions of:

- Events that contributed to psychological distress
- Signs (indicators) of psychological distress
- Signs (indicators) of recovery
- Factors that contribute to recovery

The data obtained from the 27 respondents were organized into these four themes. They were then analyzed to identify the key events believed to contribute to psychological distress, the signs of psychological distress and well-being, and the factors that contribute to psychological well-being.

The group discussion data on social connectedness were organized into indicators of social connectedness, a list of the groups women could belong to, and a list of community activities women could participate in.

Development of Interview Schedule

The development of the interview schedule involved a series of stages:

Development of First Draft of Interview Schedule

The information from group discussions and individual interviews was combined with information from other studies to develop the interview schedule. The social connectedness section of the interview schedule drew on data from group discussions, items from Pronyk and others’ (2006) assessment tool, and items from the SWAY. The psychological well-being section drew on data from case study interviews, and Betancourt and others’ (2009b) APYA.

---


3 The exception was in the rural Gulu village, where a group of community members could not be interviewed.


**Review Draft Interview Schedule with Key People and Revise**

The draft interview schedule was first reviewed with the core members of the research team, and revised. The revised version was then shared and discussed with people in Gulu knowledgeable about both psychosocial issues and research. These included the Department of Health Community Mental Health Support Officer (also the coordinator of the Mental Health working group in Gulu), staff of nongovernmental organizations (NGOs) working on psychosocial issues in Gulu, and academics in the psychology and medical departments at Gulu University. At the same time, the draft interview schedule was reviewed by the six research assistants and translator. Once comments from all parties had been received, the interview schedule was revised a second time to create a third draft that was ready to be translated and tested.

**Translation of the Interview Schedule**

The translation of instruments is a crucial part of the process; if a translation is inaccurate, both reliability and validity will be low. Items designed to measure psychosocial concepts such as “social connectedness” can be especially difficult to translate without changing their meaning because of their cultural specificity (see Verduin and others 2010). Hubbard and Miller (2004), among others (for example, Bolton 2001), have described a rigorous process for the translation of psychosocial evaluation tools.

To ensure the best possible translation of the interview schedule, the six research assistants and the translator worked on the task as a group over a period of one-and-a-half days. They discussed each item before agreeing on the best Acholi translation.

Once this process was completed, the Acholi version of the interview schedule was given to a translator who had no connection with the project, and he translated the Acholi version back into English. This back-translated version was then compared with the original English, and any discrepancies identified.

The research assistants continued to review and revise the translation of specific items throughout the period of testing the interview schedule.

**Informal Testing**

The six research assistants and the translator each administered the interview to five people in their home areas with the aim of receiving feedback on the items, response formats, and overall content of the interview. Their comments were recorded and some items on the interview schedule were revised accordingly. In addition, the translation of some items was reviewed to increase clarity.

**Testing the Validity and Reliability of Tools Measuring Psychological Distress and Social Connectedness**

The difficulties of evaluating the validity and reliability of a locally developed instrument to measure psychological/ emotional well-being are discussed by Bolton (2001). The most important form of validity for cross-cultural work is criterion validity, which is the performance of the instrument against some criterion. This criterion should be an accepted measure of the presence of the factor targeted by the new instrument—ideally a professional diagnosis (if measuring a psychological/ psychiatric problem), or another instrument validated in the same setting, with the same population. But in conflict and post-conflict settings, it is common for neither of these criteria to be available, so alternative measures of criterion validity must be found. Bolton (2001) and his colleagues (for example, Bolton, Wilk, and Ndognoni 2004; Bolton and others 2007) have addressed this difficulty by using local input. They ask local people to identify those in their community who have the psychological/ emotional problem of interest, and also to identify those who do not have such a problem. Blind interviewing of these groups is carried out, and the scores of the two groups compared. If the instrument is effective, one would expect those
identified as having a psychological/emotional problem to score more highly than those without such a problem.

The identification of those with and without the psychological problem of interest is not straightforward, and efforts must be made to ensure that the categorization is valid. Bolton (2001) addressed this by first visiting knowledgeable community members to collect the names of those who currently had or did not have the (psychiatric) illness being studied. Interviewers (who were unaware of the respondents’ reported illness status) administered the interview and then asked respondents themselves if they had the local illness. If the knowledgeable community member and the respondent disagreed, the data from that interview were not used in the analysis. But Bolton notes that it was still unclear how accurately local people diagnosed the illness he was interested in.

To test the reliability and validity of the psychological distress and the social connectedness parts of the interview schedule, these sections were administered to a sample of 179 women from 5 villages in Gulu District. These women had previously been identified by a local community-based organization (CBO) as either showing signs of psychological distress or showing no signs of psychological distress; and as either socially connected or socially isolated. The reduced version of the interview schedule was administered by the 7 research assistants to the 179 women over a period of 4 days (May 17–20, 2011).

The reduced interview schedule (see appendix 1) consisted of the following sections:

<table>
<thead>
<tr>
<th>Table 1. Description of Reduced Interview Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scale</strong></td>
</tr>
<tr>
<td>Religious attendance</td>
</tr>
<tr>
<td>Group membership</td>
</tr>
<tr>
<td>Community activities</td>
</tr>
<tr>
<td>Perceived availability of crisis support</td>
</tr>
<tr>
<td>Social support</td>
</tr>
<tr>
<td>Psychological distress</td>
</tr>
<tr>
<td>Health rating</td>
</tr>
<tr>
<td>Health problems</td>
</tr>
</tbody>
</table>

*Source: Author.*
Reliability Assessments

The reliability of the psychological distress scale was assessed. This involves calculating the extent to which people respond in a consistent way to the items that make up each scale. The overall reliability of a scale is expressed as a figure (Cronbach’s alpha) between 0 and 1; the closer the figure is to 1, the more reliable the scale.

Cronbach’s alpha for the psychological distress scale was .86, which is a strong indication of reliability. But since the scale was felt to be too long, the properties of each item were reviewed (inter-item correlations, means and standard deviations, Cronbach’s alpha if item deleted), and three items that were very similar to others were removed: “I have lots of worries,” “I use bad language,” and “I cry continuously.” The reliability of this reduced 28-item scale is still strong (Cronbach’s alpha = .84). In addition, the first item, “I listen to elders and others” was revised to “I listen to elders,” since the research assistants reported that the inclusion of two types of people caused confusion.

Validity Assessments

The validity (whether the items measure what they are intended to measure) of the psychological distress scale was assessed by comparing the scores of the two groups of people identified by the local CBO as showing signs of psychological distress and those showing no signs of psychological distress.

No significant differences were found between the two groups on the psychological distress scale. There are two possible explanations for this: either the scale did not measure what was intended, or the respondents were not correctly categorized by the CBO as suffering from psychological distress or not.

More detailed analysis showed that there were no significant differences between the two groups’ scores on any of the individual psychological distress items. This suggests that the two groups did not differ greatly in their levels of psychological distress; those who are experiencing psychological distress would be expected to respond differently to items such as “I feel a lot of pain in my heart” to those who are not experiencing psychological distress.

No differences in psychological distress scores were found between those who said they drink alcohol and those who said they do not.

Scores on the psychological distress scale were found to be significantly correlated with health problems, including the extent to which emotional problems bother the respondent and the extent to which emotional problems limit her activities. The relationships between these measures indicate that they are all measuring psychological well-being. This increases the likelihood that the failure of the psychological distress scale to differentiate between the groups of women identified as demonstrating or not demonstrating signs of psychological distress is due to problems in categorizing the women, rather than problems with the measures themselves.

The validity of the social connectedness measures was assessed by comparing the scores of the two groups of people identified by the local CBO as being socially connected and those identified as socially isolated. Significant differences were found between the two groups: the socially connected group reported higher levels of attendance at religious services and greater involvement in community activities. No differences were found between women identified as socially connected and those identified as socially isolated in terms of their membership in groups, or in the level of

4 Psychological distress and health problems, r=.40, p<.001; self-esteem and health problems, r=-.38, p<.001.
5 r=-.40, p=<.001.
6 r=-.20, p=<.001.
7 Religious attendance: socially connected mean=3.67 (sd=0.63), socially isolated mean=3.26 (1.0), t (1,176) = -3.23, p=.001.
8 Community activities: socially connected mean=6.62 (sd=1.74), socially isolated mean=5.94 (1.99), t (1,177) = -2.42, p=.02.
social support they report having received over the last month.

The four aspects of social connectedness were found to be significantly correlated, indicating that they are tapping into a common aspect of people’s lives.9

### Relationship between Psychological Well-Being and Social Connectedness

A multiple linear regression analysis was conducted to assess the relationship between social-connectedness factors and psychological distress. Initially, nine factors were hypothesized to be related to psychological distress:

- Age
- Attendance at religious services
- Rating of own health
- Extent to which physical health problems limit daily work
- Bodily pain experienced
- Group membership, participation in community activities
- Social support received over the last month
- Perceived availability of community support in a crisis

These were entered into the multiple regression as predictor variables. Since there were no solid theoretical reasons for entering the predictor variables in any particular order, the nine variables were entered in a single step, using a “forced entry” method. Although nine is a large number of predictor variables, the sample size is large enough to allow it (Miles and Shevlin 2001). The psychological distress score (based on the revised 28-item scale) was entered as the outcome variable. The small amounts of missing data were dealt with by removing the cases containing the missing values; the analysis was conducted on 174 cases.

An initial assessment of multicollinearity found that the overall health rating, the rating of the extent to which physical health problems limit daily work, and the rating of bodily pain experienced were highly correlated, and this relationship biased the regression model. The ratings of the extent to which physical health problems limit daily work and of bodily pain experienced were therefore removed from the analysis, and only the overall health rating was retained.

The model significantly predicted psychological distress, while accounting for a relatively small proportion of variance ($F(7,167)=5.32$, $p<.001$, adjusted $R^2=.15$). The statistics for each predictor variable can be found in table 2.

If $p<.05$ is taken to indicate statistical significance, three variables (age, overall health rating, and social support) clearly predicted psychological distress, and a fourth (religious attendance) was very close to meeting the criteria for significance.

Group membership and community activities failed to make a significant contribution to the variance in psychological distress, as did whether the respondent believed that she would be able to access support from the community in the event of a crisis.

Together, these variables accounted for 15 percent of the variance in psychological distress.

### Discussion

This paper describes the development of tools measuring psychological distress and social connectedness among women in the Acholi region of
northern Uganda, and an exploration of the properties of these measures.

The new measure of psychological distress appears to be useful. It is reliable and highly correlated with items measuring the extent to which emotional problems bother a respondent and limit her daily activities. However, the measure failed to distinguish between a group of women identified by a local CBO as showing signs of psychological distress and a group of women said to show no signs of psychological distress. The other analyses conducted suggest that the women were not correctly assigned to the two groups, and that the measure of psychological distress is, in fact, useful. However, without a further assessment of its validity in relation to an external criterion, it cannot be confirmed that it is actually measuring what it is intended to measure.\(^{10}\)

This finding highlights the need to make great efforts to ensure that the categorization of potential respondents is valid. In future studies, it is recommended that researchers liaise closely with those responsible for categorizing potential respondents, and that a subsequent check on the validity of the categorization is conducted. This can be done either by asking the respondents themselves if they feel that they have the particular problem of interest (for example, Bolton 2001), or by giving the list of those identified to community leaders or others familiar with people in that area, and asking them to identify those with and without the problem of interest (for example, Horn 2009).

The validity of the measures of social connectedness is also unclear, since the same doubts exist in relation to the categorization of respondents into the “socially connected” and “socially isolated” groups. The two groups were found to differ in their religious attendance and involvement in community activities, but not in their membership in groups or in the social support they reported receiving over the previous month. It is possible that the local CBO identified those who were visibly involved in community activities (including religious events) as being socially connected, and those who were not involved in such activities as being socially isolated, without considering the other aspects of social connectedness.

---

10 It should be noted that although the psychological distress scale drew on the APYA (Betancourt and others 2009a, b), there are many differences between the two measures, and the reliability and validity of the APYA has been clearly demonstrated.

---

### Table 2. Summary of Multiple Regression Analysis for Outcome Variable “Psychological Distress”

<table>
<thead>
<tr>
<th>Predictor variable</th>
<th>Beta</th>
<th>SE</th>
<th>St'd Beta</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>56.19</td>
<td>5.66</td>
<td>—</td>
<td>9.93</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Age</td>
<td>-0.19</td>
<td>0.07</td>
<td>-.19</td>
<td>-2.59</td>
<td>.01</td>
</tr>
<tr>
<td>Religious attendance</td>
<td>-2.07</td>
<td>1.06</td>
<td>-.15</td>
<td>-1.95</td>
<td>.05</td>
</tr>
<tr>
<td>Overall health rating</td>
<td>-5.15</td>
<td>1.43</td>
<td>-.27</td>
<td>-3.60</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Group membership</td>
<td>0.51</td>
<td>0.36</td>
<td>.11</td>
<td>1.43</td>
<td>.16</td>
</tr>
<tr>
<td>Community activities</td>
<td>-0.44</td>
<td>0.49</td>
<td>-.07</td>
<td>-0.90</td>
<td>.37</td>
</tr>
<tr>
<td>Social support</td>
<td>-0.42</td>
<td>0.19</td>
<td>-.18</td>
<td>-2.18</td>
<td>.03</td>
</tr>
<tr>
<td>Crisis support</td>
<td>-0.23</td>
<td>0.34</td>
<td>-.05</td>
<td>-0.67</td>
<td>.50</td>
</tr>
</tbody>
</table>

Source: Author.
An exploration of the relationship between the psychological distress score and other factors, particularly those designed to measure social connectedness, produced some interesting results. Respondents’ self-rating of their own health was most closely related to psychological distress. This may indicate that, in the context of northern Uganda, women with physical health problems are particularly likely to experience psychological distress, perhaps because of the social and economic effects of illness, as well as the pain itself. But further research would be required to confirm the nature of this relationship. Age was found to be negatively related to psychological distress, so that younger women in this sample reported higher levels of psychological distress.

In relation to social connectedness, social support received over the previous month was the only measure that showed a clear relationship with psychological distress. Respondents were asked about various forms of help received from family, friends, and other community members—including practical help, information, and emotional support. Respondents who reported receiving higher levels of help also reported lower levels of psychological distress. In this study, the actual level of support received in the previous month was a much better predictor of psychological well-being than respondents’ perception of the availability of help in a crisis.

It is of interest that neither membership in groups nor involvement in community activities predicted psychological distress. It was hypothesized that women who were involved in such activities, and who were therefore socially connected to other community members, would show lower levels of psychological distress than those who did not have such connections. The findings indicate that the quality of the relationships (that is, whether they provide the woman with emotional and practical support) has more impact on psychological well-being than the number of social interactions.

Other studies have reported mixed findings about the importance of formal group participation in minimizing psychological distress. In some situations (for example, among homeless people in the United States—Irwin and others 2008) group participation has not been found to have any effect on psychological distress, perhaps because the people in the groups are all experiencing the same type of challenges, which may inhibit the positive effects of group membership. This could also be the case for women in northern Uganda.

Given that other research has highlighted the important role that family support and intimate ties play in psychological well-being (Lin, Ye, and Ensel 1999; Mulvaney-Day, Alegria, and Sribney 2007; Person and others 2007; Zhang and Ta 2009), it would be useful to incorporate measures of these in future tools designed to assess the impact of social connectedness on psychological well-being.

**Conclusions and Implications for Research and Practice**

In summary, it can be concluded from this study that:

- Further work is needed to validate the measures developed, but initial analysis suggests that the measures of psychological distress and social connectedness are potentially useful for use with this population.
- Researchers developing and validating new tools would be well advised to ensure that the categorization of potential respondents is conducted in a rigorous and careful manner.
- Social support has more impact on psychological distress than does the number of social activities or interactions. The implication of this finding for organizations aiming to increase social connectedness as a means of improving psychological distress, is that the quality of a woman’s social relationships are more important than the quantity. Involvement in groups may not, in itself, alleviate psychological distress, but the practical and emotional support provided by friends, neighbors, and relatives are likely to have a positive effect.
• This study found some evidence of a relationship between involvement in religious activities and psychological well-being. Religious networks can provide both emotional and practical support, so organizations may wish to explore ways in which women experiencing psychological distress could link with religious organizations where appropriate.

• There is a close relationship between physical health and psychological distress. Although further research is required to clarify the nature of this relationship, initial findings suggest that organizations aiming to improve psychological well-being would do well to address physical health problems as a priority.

Next Steps:
• The tools developed shall be validated through a piloting exercise in Gulu District.
• Once validated, the tools shall be tested within the context of a pilot project implemented by the Transitional Demobilization and Reintegration Program (TDRP) in Gulu, Kitgum, Pader Districts – ‘Strengthening Women's Economic Associations’. The pilot focuses on the provision of capacity building to women’s associations to promote sustainable livelihoods and social cohesion among conflict-affected female community members.
• In addition to validating the measurement tools, parallel research shall be conducted to ascertain the effect of strengthened economic associations on social connectedness and psychosocial wellbeing of women in postconflict contexts.
• Once the tools have been tested within the context of programming, they shall be disseminated across local organizations working on relevant issues in Northern Uganda. This shall include a workshop to build capacity of local organizations on the utilization of the tools in different aspects of programming.
References


Horn, R. 2009. “A Study of the Emotional and Psychological Wellbeing of Refugees in


Ottman, G., J. Dickson, and P. Wright. 2006. *Social Connectedness and Health: A Literature
Review. Melbourne, Australia: Inner East Primary Care Partnership.


Appendix 1.
Reduced Version of Interview Schedule (Psychosocial Distress and Social Connectedness Sections Only) for Validity and Reliability Check

A. Background/ Demographics

1. What is your age? years

2. Do you attend religious services regularly?
   1=weekly  3=during festivals and special occasions only (excluding burials)
   2=monthly  4=not at all/only for burials

3. Do you take alcohol? (1=Yes, 0=No)

4. If Yes: If you can afford it, how many times will you take alcohol in a week?

READ: Now I’d like to ask you some questions about your health over the last ONE MONTH.

<table>
<thead>
<tr>
<th>Question</th>
<th>Very bad</th>
<th>Bad</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. How would you rate your health?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. How much did physical health problems limit your daily work?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. How much bodily pain have you had?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8. How much energy did you have?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9. How much did physical or emotional problems limit your usual social activities?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10. How much have you been bothered by emotional problems?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11. How much did emotional problems limit your daily activities?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
B. Social Connectedness

**READ:** Now I’d like to ask you some questions about any groups you are involved in.

12. Are you a member or leader of any kind of group? [1=Yes, 0=No]  

*If yes—read out the groups below and ask whether the respondent is a member or leader*

(Leader=2; Member=1; No=0)

a) Business group  

b) Savings group/village savings and loan association  

c) Farming group  

d) Group for raising animals/birds  

e) Roco Kwo impact group  

f) Mothers Union or Lay Apostles  

g) Music group (including choir)  

h) Dance group  

i) Drama group  

j) A water committee  

k) A church, mosque, prayer or bible study group  

l) A volunteer for an NGO  

m) Somebody who mobilises the community for meetings  

n) Any other group (type ..................................................)
13. In the last ONE MONTH have you taken part in: (1 = Yes, 0 = No)
   a) Catering for a community function
   b) Assisting at a burial
   c) Comforting and supporting bereaved relatives and neighbours
   d) Helping to clean and maintain water sources (well/borehole)
   e) Helping to dig a road
   f) Helping to develop a school (for example, build teachers’ huts)
   g) Community meeting called by the local government official
   h) Clan meeting
   i) Group digging or farming
   j) Any other community activity (specify ..................)

Imagine that your house has been completely destroyed by a fire. In this situation, how confident are you that you could:

<table>
<thead>
<tr>
<th>[Use jerry can pictures to illustrate response options]</th>
<th>Not at all confident</th>
<th>A little confident</th>
<th>Quite confident</th>
<th>Extremely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. Find people in your community to shelter you for two weeks.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>15. Borrow money to help you buy some clothes after the fire.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>16. Raise enough money to feed your family for 4 weeks.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
| 17. If response to Question 16 is “a bit,” “quite,” or “very” how would she raise the money? ............................................
   .................................................................................................................................................................................................................................
READ: Now I would like to ask you some questions about your relationships with family, friends and other community members. Thinking about the last ONE MONTH...

<table>
<thead>
<tr>
<th>1=Yes</th>
<th>0=No</th>
<th>IF YES: often (1), sometimes (2)?</th>
</tr>
</thead>
</table>

7. Is there someone who looked after a family member or your possessions when you were away? [ ] [ ]

8. Is there someone who comforted you when you were feeling distressed or lonely? [ ] [ ]

9. Is there someone who shared his or her experiences that were similar to yours when you had a problem? [ ] [ ]

10. Was there anyone in the community who assisted you when needed? [ ] [ ]

11. Is there someone who gave you some information about a program, or told you a leader or organisation you can go to for assistance? [ ] [ ]

12. Is there someone who told you to take heart and that your problems would pass? [ ] [ ]

13. Is there someone who gave you advice to help you in a situation? [ ] [ ]

14. Is there someone who listened to you talk about your thoughts and feelings? [ ] [ ]

15. Is there someone who loaned or gave you something other than money that you needed, such as a bicycle, a household item, or something else? [ ] [ ]

16. Is there someone who taught you how to do something? [ ] [ ]

17. Is there someone who joked with you to try to cheer you up? [ ] [ ]

18. Is there someone who prayed with you? [ ] [ ]

19. Is there someone who helped you do something that needed to be done, such as chores around the home, digging, or some other activity? [ ] [ ]
C. Psychological Distress

I am going to read you some statements about your general feelings and behaviour. For each one I am going to ask you how much you have experienced it IN THE LAST WEEK, including today.

To decide how much you have experienced each feeling or behaviour, think of yourself as a jerry can. The more water there is in the jerry can, the more you have experienced this feeling or behaviour:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all (0)</td>
<td>A little (1)</td>
</tr>
<tr>
<td>-----------</td>
<td>-------</td>
</tr>
<tr>
<td>31. I listen to others and elders.*</td>
<td>0</td>
</tr>
<tr>
<td>32. I have a lot of thoughts.</td>
<td>0</td>
</tr>
<tr>
<td>33. I have constant worries.</td>
<td>0</td>
</tr>
<tr>
<td>34. I think about suicide.</td>
<td>0</td>
</tr>
<tr>
<td>35. I sit alone.</td>
<td>0</td>
</tr>
<tr>
<td>36. I share thoughts with others.*</td>
<td>0</td>
</tr>
<tr>
<td>37. I feel a lot of pain in my heart.</td>
<td>0</td>
</tr>
<tr>
<td>38. I cry when I’m alone.</td>
<td>0</td>
</tr>
<tr>
<td>39. I do not sleep at night.</td>
<td>0</td>
</tr>
<tr>
<td>40. I share food and eat with others.*</td>
<td>0</td>
</tr>
<tr>
<td>41. I have lots of worries.</td>
<td>0</td>
</tr>
<tr>
<td>42. I want to be alone.</td>
<td>0</td>
</tr>
<tr>
<td>43. I insult friends.</td>
<td>0</td>
</tr>
<tr>
<td>44. I help others.*</td>
<td>0</td>
</tr>
<tr>
<td>45. I talk to myself.</td>
<td>0</td>
</tr>
<tr>
<td>46. I feel I can do nothing to help myself.</td>
<td>0</td>
</tr>
<tr>
<td>47. I fight.</td>
<td>0</td>
</tr>
<tr>
<td>48. I use bad language.</td>
<td>0</td>
</tr>
<tr>
<td>49. I am disrespectful.</td>
<td>0</td>
</tr>
<tr>
<td>50. I misbehave.</td>
<td>0</td>
</tr>
<tr>
<td>51. I welcome others.*</td>
<td>0</td>
</tr>
<tr>
<td>52. I cooperate with others.*</td>
<td>0</td>
</tr>
</tbody>
</table>

11 The scores for items with an asterisk were reversed.
### READ: Now I'd like to ask you some questions about your general feelings about yourself. I'm going to read you a statement, and I'd like you to tell me whether you agree that this statement is true for you, or whether you disagree with the statement.

[When the respondent says she agrees or disagrees, probe to find out whether she agrees/disagrees strongly or not.]

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>62. On the whole, I am satisfied with myself.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>63. At times, I think I am no good at all.*</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>64. I feel that I have a number of good qualities.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>65. I am able to do things as well as most other people.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>66. I feel I do not have much to be proud of.*</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>67. I certainly feel useless at times.*</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>68. I feel that I'm a person of worth, at least equal to others.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>69. I wish I could have more respect for myself.*</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>70. All in all, I am inclined to feel that I am a failure.*</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>71. I take a positive attitude toward myself.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

*Thank the Respondent and Close.*
Appendix 2.
Reduced Version of Interview Schedule
(Psychosocial Distress and Social Connectedness
Sections Only) for Validity and Reliability Check
(Luo Translation)

A. LOK KOMI

1. Mwaka ni adi? |___|___| years
2. Iwoto i lega kare ki kare? |___|
   1=cabit ki cabit  3=ikare me yub (mapat ki yik)
   2=dwe ki dwe                4=pe matwal (ka yik keken)
3. Nyo i mato kongo? (1=Yes, 0=No) |___|
4. **IF YES:** Ka cente tye, imato kongo tyen adii I cabit acel ? |___|

*READ: Kombedi amito penyi lapeny ma dok i kom yot komi pi dwe acel mukato angec.*

<table>
<thead>
<tr>
<th></th>
<th>Very bad</th>
<th>Bad</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. I tamo ni rwom me yot komi tye nining?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

*Use jerry can pictures*

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>A little</th>
<th>Quite a bit</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Goro me komi ni ojwiko kero me tic ma itimo jwi i rwom ango?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. I tye ki arem me kom marom mene?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8. Onongo itye /ibedo ki kero ma rom mene?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9. Goro me komi onyo tam ki cwer cwiny ojwiko rwomi me tic ki lwak marom mene?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10. Tam ki cwer cwiny yeli marom mene?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11. Tam ki cwer cwiny ojwiki tici me nino ki nino I rwom mene?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
B. KUBE KI LWAK

READ: Kombedi amito penyi lapeny ma dok I kom dul onyo gurup ma itye iye.

12. Itye lamema nyo latela i gurup mo keken? [1=Yes, 0=No]   
If yes – read out the groups below and ask whether the respondent is a member or leader  
(Leader=2; Member=1; No=0)

   o) Gurup me biacara
   p) Gurup me kano lim ki miyo den/VSLA
   q) Gurup me pur
   r) Gurup me gwoko lee ki winyi
   s) Gurup me RocoKwo
   t) Dul pa mege (Mothers Union)
   u) Lu lay (Lay Apostles)
   v) Gurup me wer
   w) Gurup me myel
   x) Gurup me goga(drama)
   y) Komiti me wang pii
   z) Dul me ot lega pa lukristo,lucilam, onyo gurup me lega ki kwano baibul.
   aa) La dyere pi dul ma pe jenge I kom gamente ki dul me tedero
   bb) Larwe lwak pi kacoke I kin gang
   cc) Gurup mo mapat (tita gi ...........................................)

READ: Kombedi amito penyi I kom kwayi tic ma I tiyo.

13. I dwe acel ma okato anjec:  
(1 = Yes, 0 = No)

   k) Konyo redo i yub pa lwak
   l) Miyo kony ka yik
   m) Cuku cwiny ki konyo wadi pa latoo ki jirani.
   n) Konyo gwoko wang pii macalo yit ki tangi
   o) Konyo yubu gudi /yoo
   p) Miyo kony me dongo gang kwan ma calo yubu odi pa lupwonye.
   q) Kacoke pa lwak ma I.C olwongo
   r) Kacoke me kaka
Kong iket ni oti mac owango kwici kwici, ki peko man itamo ni tek cwiny ango ma itye kwede me konyi timo jami magi.

**READ:** Kombedi amito penyi lapeny ma dok I kom wat I kin in ki dano ma I odi, luremi, ki dano mukene I kin gang. Tam pi due acel maakato angec.

<table>
<thead>
<tr>
<th>[Use jerry can pictures to illustrate response options]</th>
<th>Not at all confident</th>
<th>A bit confident</th>
<th>Quite confident</th>
<th>Extremely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. Nongo dano i kin gang ma romo gwoki pi cabit aryo.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>15. Deno cente me konyi wiloi bongi I nge peko ma mac okelo</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>16. Nongo cente ma romo pito jo ma I paco ni pi cabit angwen.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>17. Ka lagam pi lapeny numa 89 tye 'manok', lakite, onyo tutwal, en romo nongo cente ni nining?</td>
<td>.................................................................</td>
<td>.................................................................</td>
<td>.................................................................</td>
<td>.................................................................</td>
</tr>
</tbody>
</table>

18. Tye ngat mo ma okonyi ogwoko dano ma i gangi onyo jami ni i kare ma in i peke? [___] [___]

19. Tye ngat mo ma ocuku cwinyi i kare ma itye ki cwer cwiny dok i kwo keni keni? [___] [___]

20. Tye ngat mo ma onywako kedi jami ma en okato ki iye marom ki ma in ikato ki iye i kare me cwer cwiny? [___] [___]

21. Tye ngat mo ma ikin gang ma okonyi i kare ma mite? [___] [___]

22. Tye ngati mo ma omi ngec ikom yub mo nyo owaci pi latela nyo dul mo ma itwero ceto iye ka nongo kony? [___] [___]

23. Tye ngati mo ma ovici ni idi cwinyi piem ni peko ni tye pi tutunu? [___] [___]

24. Tye ngati mo ma omi tam me konyi ikare ma mite? [___] [___]

25. Tye ngati mo ma owinyo loki makwako tami ki kit ma iwinyo kwede? [___] [___]

Tye ngat mo ma omini den nyo omi gin mo mapat ki cente ma onongo mite boti macalo lela, jami me ot, nyo gin mo mapat?

Tye ngat mo mupwonyi kit me timo gin mo? [___] [___]

Tye ngat mo ma oboko lok kwed nyero nyero me yomo cwinyi? [___] [___]

Tye ngati mo ma olego kwedi? [___] [___]

Tye ngat mo ma okonyi tiyo tic ma onongo mite macalo tic i teng gang, pur ki tic mo mukene? [___] [___]
### C. CWER CWINY KI PAR MADWONG

Abikwani kwai lok mogo makwako kit ma iwinyo dok ikwo kwede. Ikom lok acel acel abi penyi rwom ango ma ikato ki i gin weng pi cabit acel mukato angc ni oo tin.

Me moko tami kit ma iwok ki i lok acel acel, ket kong ni in ibedo jeriken pii; jeriken ma tye ki pii pong nyuto ni loki mako komi madwong, ma peke ki pii nyuto ni loki pe mako komi matwal. Matye ki pii manok, nyuto ni loki maki manok; matye ki pii nucu jeriken nyuto ni loki maki ladyere.

![Diagram](image)

<table>
<thead>
<tr>
<th></th>
<th>pe maki matwal (0)</th>
<th>maki manok (1)</th>
<th>maki ladyere (2)</th>
<th>maki madwong (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>31.</td>
<td>Awinyo lok pa dano mukene ki pa ludito.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>32.</td>
<td>Atye ki tam madwong</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>33.</td>
<td>Atiko par</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>34.</td>
<td>Atamo ni a dene/ dere</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>35.</td>
<td>Abedo kena-kena</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>36.</td>
<td>Aribu tam ki dano mukene</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>37.</td>
<td>Awinyo ma lit i cwinya</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>38.</td>
<td>Akok ka atye kena</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>39.</td>
<td>Pe anino I dye wor</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>40.</td>
<td>Aribu cam dok acamo kacel ki dano mukene.</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>41.</td>
<td>Aparo par madwong</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>42.</td>
<td>Amito bedo kena</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>43.</td>
<td>Ayeto luwota</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>44.</td>
<td>Akonyo dano mukene</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>45.</td>
<td>Aloko kena kena</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>46.</td>
<td>Awinyo ni ape kigin mo wek akonye kwede</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>47.</td>
<td>Alwenyo</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>48.</td>
<td>Atiyo ki leb marac</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>49.</td>
<td>Pe awor</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>50.</td>
<td>Atime atata</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>51.</td>
<td>Ajolo dano mukene</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>52.</td>
<td>Arike ki dano mukene</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
53.  Iya pe yom  
| 0 | 1 | 2 | 3 |

54.  Atiko kok akoka  
| 0 | 1 | 2 | 3 |

55.  Aworo dano mukene  
| 0 | 1 | 2 | 3 |

56.  Akeco oyot  
| 0 | 1 | 2 | 3 |

57.  Pe aru ki goyo lutino na  
| 0 | 1 | 2 | 3 |

58.  Pe amito lok ki ngati mo ikom peko na  
| 0 | 1 | 2 | 3 |

59.  Awinyo calo Rubanga oweka ni yak  
| 0 | 1 | 2 | 3 |

60.  Aleko lek mareco idye wor  
| 0 | 1 | 2 | 3 |

61.  Pe atwero timo kica ki jo ma cwero cwinya  
| 0 | 1 | 2 | 3 |

**READ:** Kombedi amiti apenyi peny madok ikomi keni keni. Abi kwani lok egí, ci dong amito ni itita ka iye nyó pe iye.

[When the respondent says she agrees or disagrees, probe to find out whether she agrees/ disagrees strongly or not]

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.  Awinyo agonya kena kena</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8.  Ica mukene, awinyo ni konya pe</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9.  Atamo ni beco na dwong</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10. Atwero timo jami marom aroma ki jo mukene</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11. Awinyo ni ape ki gimo ma miya awaka</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>12. Ica mukene, anongo ni konya pe</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>13. Awinyo ni olo abedo dano ma pire tek calo dano mukene</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>14. Miti na tye ni omyero aware kekena loyo kit ma ikom kare ni</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>15. Anongo ni nen calo piny oloya</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>16. Atye ki tam mabeco ikom jami makwaka</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**APWOYO MATEK**