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Assessing married men and women's understanding of questions from a gender and power norms scale in Siaya, Kenya

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Bachelor of Arts
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An abstract of
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Abstract

Assessing married men and women's understanding of questions
from a gender and power norms scale in Siaya, Kenya
By Danielle Smith

Background: In 2009, CARE International conducted the Social Influences on Family Planning survey in Siaya, Kenya. One component of the survey was a gender and power norms scale that was a novel combination of two previously validated scales. There is a body of research to suggest that gender and power norms impact reproductive health and therefore increased desire to quantitatively measure gender norms for programmatic purposes.

Objective: The purpose of this study was 1) to evaluate understanding of questions from the CARE gender norms scale to improve the scale for future use and 2) to explore the perceived gender and power norms in Siaya, Kenya.

Methods: Eighteen cognitive interviews (8 with men, 10 with women) were conducted to evaluate understanding of the questions from the scale. Nine focus group discussions (3 with men, 3 with women, and 3 with elders) were conducted to understand the gender and power norms present in Siaya.

Results: Interpretations of questions from the scale could be classified into 5 categories: understood as intended (5 questions); misunderstanding of a single word or phrase (3); misunderstanding due to conditionality of the question (1); misunderstanding due to wording/translation (1); and conceptual misunderstanding (4). Conceptual misunderstandings of questions differed for men and women, and this seemed to be due to underlying gender norms. Questions were difficult for participants to understand if they did not fit the expected gender roles in the community. For example, women easily understood the question "My partner has more say than I do about important decisions that affect us", because gender norms encourage male decision-making power. This question was difficult for male participants, however, because imagining their partners (women) with more decision-making power defied community norms.

Discussion: While the CARE gender norms scale was well understood overall, data suggest several revisions to improve question understanding. In particular, community gender norms influenced how people interpreted questions from the scale and resulted in misunderstanding of several questions. Examining participants' interpretations of questions and considering the impact of community norms on question interpretation revealed ways to improve the gender and power norms scale for use in Siaya, Kenya.

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Table of Contents

Chapter 1: Introduction

In 2009, CARE International conducted the Social Influences on Family Planning baseline survey in Kenya, Ethiopia, and Rwanda. The purpose of the survey was to assess levels of various reproductive health indicators, such as contraceptive prevalence rate, as well as to examine potential relationships between these indicators and social and community-level influences on family planning. One component of the survey was a scale intended to measure participants' attitudes towards gender norms and feelings about power in intimate partner relationships, or relationship equity. Research in the field has found that perceived gender norms, as well as levels of power or autonomy in intimate partner relationships, impact individuals' reproductive behaviors (Pulerwitz and Barker, 2008; Pulerwitz et al., 2000). For this reason, increased emphasis has been placed on creating more gender equitable attitudes in places where men have a disproportionate share of the power in fertility and contraceptive decisions.

The 23-item scale used in the CARE survey was a unique combination of two previously-validated scales intended to measure gender norms and relationship power dynamics, the Gender Equitable Men (GEM) scale and the Sexual Relationship Power Scale (SRPS) (described in greater length in the literature review). The CARE scale was designed for use with both men and women, and it was the first time the GEM scale and the SRPS had been combined (Stephenson et al., 2009). While interesting relationships were found between scale scores and various reproductive health indicators, it is unknown whether the specific questions chosen were the most appropriate for the study setting or universally understood. In this study, an iterative process was used to evaluate

married men and women's understanding of questions from the CARE gender and power norms scale.

Given that gender norms and power dynamics in intimate partner relationships are believed to influence reproductive health behaviors, it is important to quantitatively measure these concepts in order to characterize these issues in the study setting and understand where programmatic efforts should be focused. It is also necessary to find a way to measure these concepts as an outcome for programs that specifically focus on changing gender normative attitudes or improving relationship equity (Pulerwitz and Barker, 2008). This particular gender and power norms scale has not been validated in Siaya, Kenya, and is also unique in its application to both genders. Qualitative work is the appropriate method to evaluate whether the scale accurately measures gender norms and power dynamics with the intended population.

Cognitive interviewing is considered a "best practice" qualitative methodology when evaluating quantitative research instruments (Beatty and Willis, 2007), but few examples exist of cognitive interviewing as a methodology in the arena of sexual and reproductive health. Specifically, cognitive interviewing has never been used (to the author's knowledge) to examine clarity and understanding of scale questions from a gender and power norms scale. Given that gender norms are often sensitive and context-specific, it is particularly important to ensure participants in the study setting accurately interpret these questions. In this study, cognitive interviewing was paired with focus group discussions to create an in-depth picture of the gender and power norms present in Siaya and further inform the quantitative research instrument.

Objective

The objective of this study is to understand how participants understand questions from a gender and power norms scale in Siaya, Kenya.

Specific Aims

1. To describe the prevalent gender norms in Siaya, Kenya, using focus group discussions.
2. To use these findings to inform participants' understanding of questions from gender and power norms scales in Siaya, Kenya.
3. To evaluate participants' understanding of specific questions from the scale used in the CARE survey by conducting cognitive interviews in Siaya, Kenya.
4. To assess whether cognitive interviewing methodology can be an effective way of evaluating participants' understanding of questions from a gender and power norms scale in Siaya, Kenya.

Study Setting

Siaya District is one of twelve districts located in the Nyanza province of Kenya (figure 1).

Figure 1: Map of Kenya

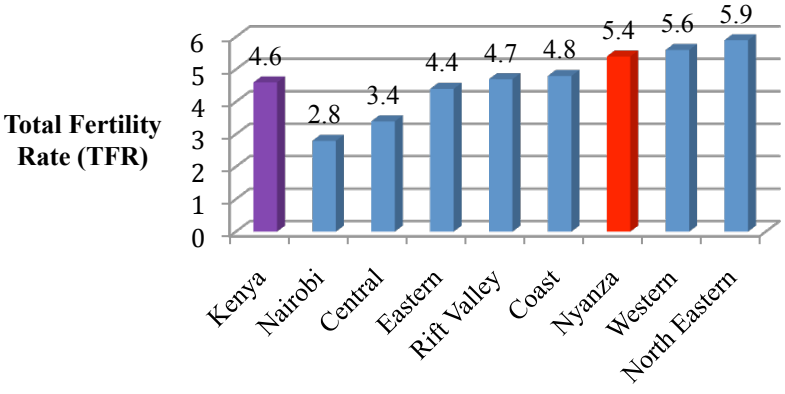
Geology.com, 2005-2011

Its 1,520 square kilometers are home to 520,516 people, and it is largely rural (CARE Kenya, 2009). Siaya is one of the poorest districts in Kenya, with 68% of the households residing below the poverty line (CARE Kenya, 2009).

Photos property of Danielle Smith

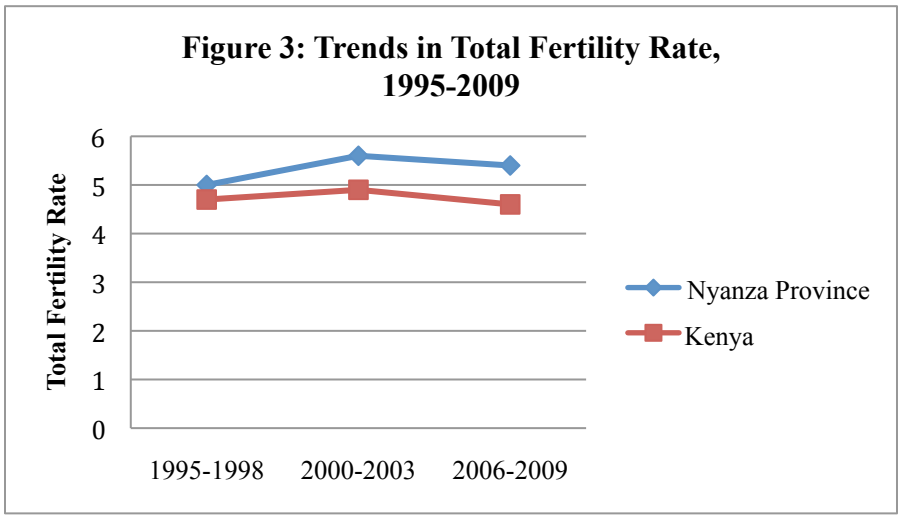
Nyanza province has one of the highest fertility rates in the country (figure 2). The total fertility rate (TFR) is 5.4, while the TFR of Kenya as a country has declined to 4.6 as of the most recent Demographic and Health Survey (Kenya National Bureau of Statistics (KNBS) and ICF Macro, 2010).

Figure 2: TFR in Kenya and its Provinces, 2009



Data from the 2008-2009 Kenya Demographic and Health Survey

The TFR in Nyanza increased 12% from the 1998 to the 2003 DHS, and the reduction to 5.4 as of the current DHS is still above the 1998 level (figure 3).



Data from the 2008-2009 Kenya Demographic and Health Survey

The median age at first birth is also the lowest of any of the provinces (19 years). The prevalence of modern contraceptive use is 32.9%. While this is an increase from 21% in the 2003 DHS, it is still below the country as a whole (39.4%) (KNBS and ICF Macro, 2010). The HIV prevalence amongst Luos, the predominant ethnic group in Siaya, is 20.2%, the highest of any ethnic group in Kenya (KNBS and ICF Macro, 2010).

Nyanza province also has the highest prevalence of women who have ever experienced intimate partner violence since age 15, both physical (56.6%) and sexual (31.6%) (KNBS and ICF Macro, 2010). More than half of the women surveyed in Nyanza have experienced some form of marital violence, whether emotional, physical, or sexual (KNBS and ICF Macro, 2010). Given the research that demonstrates associations between intimate partner violence and poor reproductive health indicators, such as contraceptive prevalence, it is important to examine gender norms that may contribute to this relationship inequality (Pulerwitz and Barker, 2008).

Siaya suffers from poor reproductive health indicators despite numerous development efforts in the area. Several non-governmental organizations have infused the area with family planning programs, improvements to the district hospital, and increased road access to remote areas (CARE Kenya, 2009). This suggests a need to delve deeper into the root causes of poor reproductive health in Siaya, because improvements to surface-level factors, such as the family planning supply, have not had more than a moderate impact on use. An accurate assessment of gender norms and power dynamics in intimate partner relationships may provide insight into where to focus programmatic efforts.

In order to evaluate gender normative attitudes in the study setting, accurate quantitative measures are needed. The CARE gender norms scale has the potential to provide insight into these issues from both the male and female perspectives. Evaluation of the tool using qualitative research is lacking, and it may provide information to improve the scale for future use and make it a more accurate quantitative tool for the study setting.

Chapter 2: Literature Review

Family planning decision-making

Much work has been done since the 1980s on decision-making power and family planning choices. In particular, focus has been on how women's autonomy and power in relationships in low-resource settings impact their contraceptive use (Gwako, 1997). This emphasis on women's ability to negotiate their fertility and reproductive health choices was a central outcome of the 1994 International Conference on Population and Development (ICPD) held in Cairo (United Nations Population Fund, 1995). Since then, the United Nations has recognized that context-specific gender and cultural norms, rather than just traditional barriers such as supply and acceptability, may greatly impact sexual and reproductive health choices (United Nations Population Fund, 1995). Gender equality and the empowerment of women is one of the Millennium Development Goals, and understanding how men and women make decisions regarding their fertility is an essential component of gender equality (United Nations, 2010).

The power structure theory conjectures that many other actors may impact an individual's decisions regarding fertility and reproductive health, such as intimate partners or spouses, other family members, the community at large, and political and cultural influences that establish acceptable behavior (Gwako, 1997). A range of approaches have been used to determine what influences decision-making power, and the often inconsistent results demonstrate why decision-making in the realm of fertility and family planning is particularly difficult to tease out.

Family planning as "woman's work"

In many societies, even where men acknowledge that reproductive decisions should involve both partners, much of the burden of regulating fertility is left to women (Mbizvo, 1996). In most low-resource settings, female-controlled methods, such as the pill, injection, and tubal ligation, are far more common than the condom or vasectomy; they are also more acceptable (Ringheim, 1993; Marchi et al., 2008; Mbizvo, 1996).

Despite the fact that women are frequently the targets of family planning programming, many cultures have a patriarchal structure in which men are the dominant decision-makers in relationships (Ringheim, 1993; Speizer et al., 2005). Although family planning is often seen as a woman's domain, most men and many women in patriarchal societies feel that the final word on fertility regulation belongs to the man (Kimuna and Adamchak, 2001). Worries of losing the "head of the household" title often prevent men from delegating reproductive decision-making to women, although women are expected to bear the responsibility of implementing any decisions made by men (Speizer et al., 2005). This disconnect between who decides and who practices is, in part, impacted by culture and gender norms that establish the expected course of action couples should take (Mbweza et al., 2008).

Culture and gender norms

Cultural beliefs, such as sex preference and a desire for large families, may influence individual- or family-level choices about family planning use (Sargent and Cordell, 2003). The impact of culture on reproductive behavior can be seen in studies of immigrant populations and changes in behavior that result when exposed to new norms and beliefs. A study in France found that Malian immigrants moved from a culture that

promoted polygamy and high fertility to a country where polygamy and large families were scorned and modern contraception was popular. This influenced immigrants' views and caused clashes within families, where one partner wanted to adopt a new view of reproduction and the other resisted (Sargent and Cordell, 2003). A study in California found that Mexican immigrants experienced exposure to a new culture with different values and additional stresses that impacted their reproductive decision-making (Maternowska et al., 2009).

In addition to the fact that patriarchal societies often place emphasis on men as the dominant decision-makers, other gender norms place women in a position that makes it difficult for them to take their fertility into their own hands. One example is that use of contraception in areas with traditional gender norms may stir suspicions of extra-marital sex or sexual promiscuity. This is especially true of condoms, which are frequently associated with casual sexual encounters and may imply distrust in a partner (Edwards, 1994; Blanc and Wolff, 2001). These gender norms create barriers for individual-level contraceptive decision-making.

Community and family influence

Several studies have shown that, in areas where harmful gender norms are more accepted and embodied, individual choices regarding reproduction tend to be impeded. This ecologic perspective advocates that community-level beliefs may impact an individual's decision-making (Pallitto and O'Campo, 2005). A study of unintended pregnancy and intimate partner violence in Columbia showed that living in a municipality with a more patriarchal structure significantly increased women's odds of experiencing intimate partner violence and unplanned pregnancies (Pallitto and O'Campo, 2004). An

individual's social environment, and the opinions and behaviors about fertility and reproductive health accepted in that social environment, impact an individual's decision-making (Kohler et al., 2001).

In cultures where women are expected to defer to other family members, such as the mother-in-law, women may sacrifice their wishes to those of the family as a whole (Char et al., 2010). Karra et al. (1997) found that the importance of family often impacted a couple's decision about use and type of contraception. Even extended family sometimes had knowledge about the couple's fertility decisions (Karra et al., 1997). Competing desires may cause a couple to alter their plans in order to please their relatives.

Characteristics that may influence decision-making power

Various individual-level characteristics have been proposed to influence women's decision-making power in the realms of reproductive and sexual health, including financial contribution to the family and education level. A study conducted in Turkey found positive associations between education and income and decision-making power (Erci, 2003). Another study utilizing DHS data from several African countries found that women with post-primary education are significantly more likely to use modern contraception and to desire smaller family sizes; this supposedly translates into a greater ability to negotiate their desires with their partners (Uchudi, 2001).

The relationship between these proxy measures of power and actual ability to make decisions, however, is debated in the literature. Orubuloye et al. (1997) argue that, despite being major economic producers in several sub-Saharan African countries, many women still lack the power to make decisions in their relationships. Additionally, other

research has shown that education about and intention to use contraception do not always translate into use (Kimuna and Adamchak, 2001).

Women's autonomy in the household

Several studies have attempted to examine the direct relationship between women's autonomy when it comes to household decisions and their fertility behavior. A study of Demographic and Health Survey data in Eritrea found that a relationship exists between several autonomy indicators, such as having the final say on household purchases, and improved reproductive health indicators (Woldemicael, 2009). Additionally, Gwako (1997) found a woman's position relative to her husband to be the main predictor of fertility preferences and contraceptive use in rural Kenya.

Results from a study conducted in two regions of India suggest that sometimes the perception of a woman's autonomy has a greater impact on reproductive health outcomes than measures of autonomy themselves. The study found that women whose partners perceived them to have more autonomy were more likely to use contraception, indicating the impact of men's attitudes towards gender equity (Jejeebhoy, 2002). The study also found the ineffectiveness of women's education and income as proxy measures for decision-making power in a gender-stratified society (Jejeebhoy, 2002). Erci (2003) similarly found that women's perceptions of their own autonomy greatly influenced their abilities to participate in reproductive health decision-making.

Context specificity

Many studies emphasize the importance of seeing beyond stereotypical gender norms and investigating the specific circumstances influencing decision-making in the study setting (Mbweza et al, 2008; Maternowska et al., 2010; Orubuloye, 1997). The

level of covert contraceptive use by women in many countries alone suggests that the decision-making process may be more complex than surface-level norms suggest, and that women often take on the responsibility of regulating fertility even in societies where it is supposedly the man's final decision (Gwako, 1997 and Ndinda, 2007). Many studies also suggest that women may follow a different decision-making process than men. Stash (1997) found that Nepalese women followed a different decision-making process than men when deciding whether to pursue additional pregnancies, and different factors, such as the burden of additional children or son preference, were more influential for one person's decision than the other. Additionally, a study of the decision-making processes of husband and wife pairs in Malawi found that women have the final say over certain domains, such as housework and child rearing, eclipsing the idea that all decisions in a patrilineal society are made by men (Mbweza, 2008).

In addition to the fact that different factors may be influencing decision-making power in different settings, there is also debate in the literature over how to measure decision-making power. Some studies have found relationships between proxy measures of autonomy, such as education and employment, and fertility decision-making; while others claim that these do not substitute for an actual measure of autonomy (Woldemicael, 2009).

The variety of mechanisms proposed to influence family planning decision-making, and the various ways used to measure decision-making power, show that the issue is complex. Applying theories from one country to another may result in overlooking some influential factor in the new setting. Literature suggests that context-specific circumstances and cultural and community norms play large roles in

reproductive health decisions (Pallitto and O'Campo, 2005; Kohler et al., 2001). A setting-specific analysis of decision-making power is preferable over applying a blanket theory to all low-resource settings.

Kenya

Kenya, despite being one of the first African countries to institute a family planning program and performing better than its Sub-Saharan African neighbors in many health indicators, remains with pockets of poor health. Nyanza province has significantly higher fertility and lower modern contraceptive use than the country as a whole (Kenya National Bureau of Statistics (KNBS) and ICF Macro, 2010). The 2008-9 total fertility rate of 5.4 is higher than the country rate of 4.6 (KNBS and ICF Macro, 2010). Nyanza also has one of the lowest modern contraceptive prevalence rate at 32.9% (compared to the country-wide prevalence of 39.4%) (KNBS and ICF Macro, 2010). There is a need to understand why programming has not translated into behavior change in Nyanza, and some recent research there has focused on gender norms and relationship power dynamics (Gwako, 1997; Kimuna and Adamchak, 2001).

In order to understand how gender inequity may impact reproductive health, it is important to understand the context-specific issues in the study setting. An examination of the specific circumstances faced by men and women in a certain place may elucidate ways to improve and more effectively target programming. In order to assess gender and power norms, however, a comprehensive quantitative measure is needed.

Measuring gender norms and power dynamics

Various attempts have been made to quantitatively measure concepts such as gender equity, power dynamics in relationships, and gendered attitudes and beliefs. The breadth of literature on the topic provides evidence for links between inequitable gender norms and negative reproductive and sexual health outcomes, as well as violence against women (Pulerwitz and Barker, 2008). Adequately measuring concepts such as gender norms may give individuals a better sense of the issues that need to be addressed programmatically in a given setting (C-Change, 2010). Due to the complicated and context-specific nature of gender issues, scales provide a way to measure and quantify these concepts. Several such scales have been validated and accepted as effective measures of some aspect of gender norms, including the Couple Communication on Sex Scale, the Gender Beliefs Scale, and the Gender Norm Attitudes Scale (C-Change, 2010). Two additional scales have contributed to the current literature: the Gender Equitable Men (GEM) Scale (Pulerwitz and Barker, 2008) and the Sexual Relationship Power Scale (SRPS) (Pulerwitz, 2000).

GEM Scale

The Gender Equitable Men (GEM) Scale was originally designed as a twenty-four-item program evaluation tool intended to measure young men's attitudes towards gender norms in low-resource settings (Pulerwitz and Barker, 2008). Motivation to design the scale arose from perceived weaknesses in previous scales that were designed to measure masculine ideology. These scales, while validated and reliable, were not designed for use in low-resource settings and did not extensively cover domains of

intimate relationships and reproductive health. Additionally, none were designed as program evaluation tools (Pulerwitz and Barker, 2008).

The social constructionist theory provided the conceptual framework for the GEM scale's design, which posits that each cultural setting provides versions of acceptable behaviors for men and women. These gender norms are passed down to each successive generation and individually interpreted and internalized, with some subjective revision occurring for each individual. These individuals, in turn, contribute to and influence the broader gender norms (Pulerwitz and Barker, 2008). Therefore, while there are certain accepted behaviors for men and women, there is a spectrum of adherence to them. These norms are also variable over time as individuals influence them (Pulerwitz and Barker, 2008).

The initial research for the scale, testing, and evaluation/validation were performed among young men in Brazil. Qualitative research, as well as a literature review of the topic, informed the selection of five key domains to be included in the scale: domestic work and caring for children; sexuality and sexual relationships; reproductive health and disease prevention; partner violence; and homosexuality (Pulerwitz and Barker, 2008). The scale consists of two subscales, the "Inequitable Gender Norms" subscale (n=17) and the "Equitable Gender Norms" subscale (n=7). Scoring for each item is on a three-point scale: 1 = Agree, 2 = Partially Agree, and 3 = Do Not Agree.

The scale was internally valid, and higher scores (indicating more equitable attitudes) were statistically significantly related to several behavioral outcomes: less partner violence, higher contraceptive use, and higher education. This indicated the scale

achieved its objectives of effectively measuring gender norms and showing a relationship between these norms and behaviors (Pulerwitz and Barker, 2008). The GEM Scale has since been adapted for use in India, China, Ethiopia, Kenya, Uganda, and Tanzania. It has been modified for use with men and women, and the number of items has been changed and culture-specific questions altered to most appropriately fit the study setting (C-Change, 2010).

SRPS

The Sexual Relationship Power Scale (SRPS) was designed to measure relationship power dynamics and sexual decision-making amongst women. The design of the scale grew out of the hypothesis that the ability to negotiate safer sex is influenced by the balance of power in intimate relationships, often to the detriment of women (Pulerwitz et al., 2000). Power, however, may operate at several levels in a relationship, and few attempts had been made to define relationship power or measure it prior to the development of the SRPS. Previous attempts to measure relationship power dynamics suffered from several weaknesses, including using a single measure or proxy measures of relationship power; being applicable to married couples only; or lacking a theoretical framework to justify the measures (Pulerwitz et al., 2000).

The Theory of Gender and Power informed scale development, a structural theory that hypothesizes that three concepts explain gender-based power imbalances: economic inequality, male partner control within relationships, and social norms related to gender roles. This theory postulates that men hold a disproportionate amount of power in society, and this results in men having more decision-making power in a number of arenas (Pulerwitz et al., 2000). The Social Exchange Theory also contributed to scale

development. This psychosocial theory, which relies on a more interpersonal definition of relationship power, suggests that the individual who has the ability to control the other's actions or resist the other's desires holds the power. The person with more power will be the person who has more control over decision-making in the relationship (Pulerwitz et al., 2000).

The original development, testing, and validation of the scale were with primarily minority women in the United States who had a primary partner (Pulerwitz et al., 2000). The original scale contained 23-item scale with two subscales, "Relationship Control" and "Decision-Making Dominance" (Pulerwitz et al., 2000). Scoring for each item is on a four-point scale: 1 = Strongly Agree, 2 = Agree, 3 = Disagree, and 4 = Strongly Disagree.

The scale was internally valid, and higher scores were statistically significantly associated with less physical violence, consistent condom use, and higher education levels. The scale was an effective measurement of relationship power dynamics, and scores were strong predictors of the level of power equity in relationships (Pulerwitz et al., 2000). The scale has since been adapted for use with men and utilized in South Africa, Zimbabwe, Jamaica, China, and Thailand (C-Change, 2010).

CARE Gender Equity and Power Scale

In order to assess how gender norms as well as relationship power dynamics influence behavioral outcomes, such as contraceptive use, in low-resource settings, CARE International and Emory University combined the Gender Equitable Men (GEM) Scale and the Sexual Relationship Power Scale (SRPS) for use in a survey conducted in Kenya, Ethiopia, and Rwanda (Stephenson, 2009). The two scales were combined in order to address both the male and female perspective of these issues and to capture the

impact of both gender norms and relationship power dynamics on reproductive health outcomes. The combined scale, the Gender Equity and Power Scale, was incorporated into the Results Initiative Baseline Survey conducted in all three countries in 2009. In addition to the combined scale, the survey measured fertility, contraceptive use, and fertility intentions and attitudes of rural married men and women of reproductive age (18-45) (Stephenson, 2009).

The scale includes 23 items. Six items were taken from the SPRS to create the power subscale, and one item, "*I feel comfortable discussing HIV with my partner*", was added due to the desire to understand attitudes towards HIV/AIDS in the study settings. Sixteen items were taken from the GEM Scale to create the equity subscale (Stephenson et al., 2010). Selection of questions was based on the desire to create a scale with a manageable number of items, to capture all domains of gender equity and relationship power addressed in the two individual scales, and to make the scale culturally appropriate for all three study settings (Stephenson et al., 2009). Participants were asked to respond to each item on a five-point scale, with 5 representing total agreement and 1 representing total disagreement (Appendix 1).

The results of the survey demonstrate that the combined scale is sensitive in detecting a range of attitudes concerning gender equity and relationship power dynamics for both men and women. Additionally, associations were seen between the power scale and contraceptive use for women and men and between the equity scale and contraceptive use for women (Stephenson et al., 2010). The researchers recognized, however, the need to explore how well these particular scale items encompass locally constructed gender norms. It is possible that there are gender norms that shape gender

equity and relationship power dynamics in Kenya that were not addressed in the scales. Moreover, certain scale items are not entirely appropriate for the study setting. Additionally, combining the two scales was a novel approach and the study settings were new. Further work was needed to investigate participants' understandings of the scale items to ensure the questions were clear and correctly interpreted by individuals in the study setting (Stephenson et al., 2010).

Cognitive interviewing

Cognitive interviewing is a research method that utilizes participants' feedback to assist in the design or validation of survey questions (Beatty and Willis, 2007).[1] Since the 1980s, it has been one of the most common methods of pretesting and improving questionnaires and other quantitative research instruments (Presser et al., 2004). While cognitive interviewing may take many forms, its most basic definition is delivering the questions of interest to participants and eliciting additional verbal information from them in the forms of reactions or interpretations. This information may provide insight into the effectiveness of the survey questions and inform changes prior to an instrument's implementation (Shafer and Lohse).

Pretesting and validating quantitative instruments is often neglected, yet it can yield considerable insight into problems with quantitative questions. This is particularly relevant when considering surveys adapted for use in a different language, those implemented with a new target population, or those designed for use with special

[1] This type of cognitive interview is distinct from a psychological interview of the same name that seeks to elicit information from eyewitnesses of crimes or improve memory recall.

populations such as children or adults with low literacy (Presser et al., 2004). Despite this, pretesting and validation are research phases frequently overlooked in cross-cultural research (Presser et al., 2004).

Styles of cognitive interviews

There are two main paradigms of cognitive interviewing: think-aloud, or non-interventional cognitive interviews, and the direct probing method (Beatty and Willis, 2007). Think-aloud interviews involve as little interviewer participation as possible. Participants are read the question or survey item of interest, and they are encouraged to relay any reactions they have to it and "think through" how and why they are responding in a particular way (Beatty and Willis, 2007). This was the original format of cognitive interviews, its development heavily rooted in psychology (Beatty and Willis, 2007). A more intensive interviewing style arose from this think-aloud method. It involves a scripted interview that includes probing participants' responses for clarification (Beatty and Willis, 2007).

There are distinct advantages and disadvantages to each method. The think-aloud method is more standardized and introduces less interviewer bias, because interviewers are not prompting participants in any way. It also requires little training of interviewers (Beatty and Willis, 2007). Many participants, however, have difficulty with a think-aloud style. Probing, on the other hand, offers more guidance. It may also help researchers hone in on particular areas or questions that they already anticipate to be problematic. The main disadvantage of probing is the opportunity to introduce bias into the interview, since greater interviewer participation is required than with the think-aloud style (Beatty and Willis, 2007).

Probing

Even within a particular paradigm, cognitive interviews may be quite different in design. If using the direct-probing method, a decision must be made regarding whether probes should be pre-scripted or spontaneous (Beatty and Willis, 2007). A guide with probes chosen prior to the interview, also called standardized construction, is more effort up front but requires less of interviewers. Giving interviewers the license to probe more spontaneously, referred to as non-standardized construction, requires more highly trained interviewers and may reduce consistency across interviews, but it also allows interviewers to delve into issues that arise based on participants' responses (Beatty and Willis, 2007).

While elements of both styles are often combined for use in a single interview, most cognitive interviews today tend to be more structured and include several probes (Beatty and Willis, 2007). The balance between one method and the other is often dependent upon the participants. Education level, language barriers, and comfort with a think-aloud approach will influence how much probing is necessary (Beatty and Willis, 2007). Probing in cognitive interviews has not been written about in much detail, but many cognitive studies use the principles of qualitative research to design effective probes. In general, probes should not be leading but should be specific enough to elicit a response that answers the question at hand (Willis, 1999).

Sample size

Data from cognitive interviews, like other qualitative research, are not intended to be representative of a larger population. The data that arise from the individuals interviewed are considered potential problems people may have with the questions in that

study setting, not the extent to which there will be questionnaire issues in the population of interest (Beatty and Willis, 2007). For that reason, cognitive interviewing usually involves small sample sizes and employs purposive sampling. Individuals are usually chosen who share characteristics with the people who will eventually participate in the survey (Beatty and Willis, 2007).

The exact number of cognitive interviews that should be conducted, however, is an area of debate in the current literature. Little is written specifically on sample size, and the general consensus is that small numbers (in the range of 5 to 15 interviews per "round", with some improvement or adaptation of questions in between each round) is adequate (Beatty and Willis, 2007). Recent research by Blair et al. (2006), however, uncovered problems with questions after as many as 50 interviews. Even more surprising, they found the majority of the problems arose later in the interviewing process. This may be a setting-specific finding, however, and the cost and time required to conduct such a large number of interviews must be weighed against the data acquired (Blair et al., 2006).

Analyzing and utilizing cognitive interview data

While there is less written about analyzing cognitive interview results than there is about conducting the interviews themselves, Knafl et al. (2006) proposes an item-by-item analysis that considers the question itself (rather than the individual participant) as the unit of interest. This lends itself to analyzing each question across all interviews, summarizing participants' responses and classifying them into the type of problem identified. The categories of problems identified should be specific to the survey of interest, but they may include categories such as applicability of the question; problems with wording; acceptability of the question; etc. (Knafl et al., 2006).

Since the purpose of cognitive interviewing is to improve survey questions, the analysis of cognitive interview data should be used to revise questions appropriately. Identifying the types of problems participants have with questions allows researchers to change the wording of problematic questions, consider deleting certain questions altogether, or changing the order of the questions (Knafl et al., 2006). This may be done prior to introducing the survey or before a validated survey is introduced into a new context. Indeed, Barroso and Sandelowski (2001) advocate for the importance of qualitative research, such as cognitive interviewing, as an ongoing tool in quantitative methods. Cognitive interviewing and refinement of surveys should not end at instrument development; surveys should be analyzed throughout their use as they are introduced into new populations (Barroso and Sandelowski, 2001).

Error in cognitive interviewing

As with all research, it is possible that cognitive interview data could be incorrectly collected or interpreted (Conrad and Blair, 2009). Cognitive interviewing may reveal a problem with a survey question that does not turn out to be an actual problem in the population of interest. On the other hand, cognitive interviewing may fail to identify a problem with a question. Additionally, problem identification does not always lead to problem solution (Presser et al., 2004). Previous studies have demonstrated the effectiveness of cognitive interviewing in uncovering questionnaire problems, but another study found that questions rewritten based on cognitive interviewing results did not consistently out-perform the original questions (Presser et al., 2004).

Examples of cognitive interviewing in research

Cognitive interviewing has been used in various areas of public health as a method of developing and pretesting surveys and questionnaires. It has been used to evaluate surveys of symptoms for patients with chronic diseases (Murtagh et al., 2007; Wu and McSweeney, 2004; Paterson and Britten, 2003). Wyrwich and Tardino (2006) used cognitive interviewing to assess the health-related quality of life (HRQoL) measures used in global transition assessments. Cognitive interviews have also been used to assist in the development of materials other than questionnaires, such as patient brochures (Lake et al., 2007).

Several studies have used cognitive interviewing with the expressed goal of assessing the acceptability of questions. In a study of black breast cancer patients, cognitive interviewing uncovered the low acceptability of measures of fatalism (Sheppard et al., 2010). In their assessment of the Family Management Measure (FMM), Knafl et al. (2006) identified several questions that the parents of children with chronic diseases found offensive or distasteful. Revision or deletion of these questions created a more comfortable survey experience for participants and avoided many hostile reactions that could have biased the rest of the interview (Knafl et al., 2006).

Cognitive interviewing is also a way to improve questions in low-literacy populations or other populations that may have difficulty responding to survey questions (Carbone et al., 2005). In a study by Prochaska et al. (2007), cognitive interviewing was used to evaluate the Test for Nicotine Dependence (FTND) amongst schizophrenics. Another example is the use of cognitive interviews with children (Baars et al., 2005).

Recently, researchers have used cognitive interviewing to make questions compatible in cross-cultural or multi-language research (Nápoles-Springer et al., 2006). In non-English speaking populations, translation alone may neglect some of the nuances of phrasing in the new language. Additionally, locally constructed concepts are often missed in translation (Goerman and Caspar, 2010). Cognitive interviewing can assist in discovering and remedying these issues (Cortés et al., 2007).

Cognitive interviewing in sexual and reproductive health

Limited cognitive interviewing has been done in the specific areas of sexual and reproductive health. Clark et al. (2005) used cognitive interviewing in the Cancer Screening Project for Women to ascertain the best way to measure sexual orientation and gender expression amongst participants prior to implementing the survey. McCabe et al. (2009) utilized cognitive interviews to clarify meanings of sex and sexuality in survey questions. Their work uncovered the wide range of interpretations of these topics and that they were often culturally constructed based on the predominant gender norms (McCabe et al., 2009). Gesink et al. (2009) also used cognitive interviews in the development of a sexual health survey for an urban arctic community. They found that cognitive interviewing helped uncover culturally specific beliefs and understandings of sexual health issues that impacted the understanding of the survey questions (Gesink et al., 2009).

Despite the findings from these few studies that cognitive interviewing may provide a wealth of information in reproductive health research, it is infrequently used in this area. It has never been used, to the author's knowledge, to improve a measure of gender norms. The goal of the present study was to utilize cognitive interviewing to

validate the gender and power norms scale used in the 2009 CARE survey. If successful, the study could inform revisions and improvements of the scale for future use. Additionally, the study could contribute to the literature on effective use of cognitive interviewing in reproductive health research.

Chapter 3: Project Content

Methods

Study Setting

This study took place in Siaya District in the province of Nyanza, Kenya. Participants were recruited from three of the 30 villages that were included in the Social Influences on Family Planning baseline survey conducted as part of CARE International in Kenya's Social Change for Family Planning Results Initiative. The baseline survey was conducted to measure fertility levels and family planning behavior, as well as to understand the various social, cultural, and economic factors that may influence attitudes towards family planning and subsequent behaviors (Stephenson, 2009). Siaya is a largely rural district with 68% of the households living below the poverty line despite various development efforts in the area (CARE Kenya, 2009). Nyanza province has a total fertility rate (TFR) of 5.4 as of the 2008-9 Kenya Demographic and Health Survey. The prevalence of modern contraceptive use is 32.9% (Kenya National Bureau of Statistics (KNBS) and ICF Macro, 2010). The HIV prevalence amongst Luos, the predominant ethnicity in Siaya District, is 20.2%. This is the highest prevalence of any ethnic group (KNBS and ICF Macro, 2010).

Tool Development

Cognitive interviews were conducted to assess participants' understanding and interpretation of items from CARE's gender equity and power scale, part of the Social Influences on Family Planning baseline survey. The scale was a combination of questions from the Gender Equitable Men (GEM) Scale and the Sexual Power and Relationship Scale (SPRS) (Pulerwitz and Barker, 2008; Pulerwitz et al., 2000). Selected questions

from both scales were combined for use in the CARE scale, and this combined scale was identical for both male and female participants.

Fourteen questions were chosen from the CARE scale for the cognitive interviews, with assistance from CARE. The questions addressed the common theme of decision-making and power in relationships, a topic the CARE team felt was a potential source of confusion for participants following the survey. The chosen questions were stated to participants one at a time. Participants were asked to explain their understanding of the questions. This was accomplished by asking them to paraphrase the question and explain what it meant in their own words. This verbal probing technique is common to cognitive interviewing and was used to elicit participants' interpretations of questions (Knafl et al., 2007). In addition, participants were asked to explain their understanding of particular words within the questions, such as "sex" or "partner". At the end of the interview, they were asked to express if particular questions made them uncomfortable or were difficult to answer and why.

This structured, probing style of cognitive interviewing was chosen because it was anticipated to be easier for the target population (Beatty and Willis, 2007). A think-aloud approach is often more difficult for participants and may have been harder to accurately express in Luo (Beatty and Willis, 2007) (see the literature review for a more extensive explanation of interviewing technique). Standardizing probes was useful in maintaining consistency, since it was anticipated that multiple research assistants would be conducting interviews. Additionally, extensive training of the research assistants was not possible and it was expected that standardized probes would reduce the pressure on the interviewers.

An additional guide was developed for focus group discussions. The purpose of these additional data were to understand how perceptions of gender and power norms in the area influence decisions in the home, particularly surrounding family planning use. The ultimate goal was to give context to societal norms that potentially influence how people perceive and understand these topics in surveys like the one conducted by CARE, and how these perceptions might influence their responses. Questions included topics such as which partner would make fertility decisions, why, and who he/she would discuss the issue with before acting on it.

Qualitative theory drove the design of the focus group discussion guide, because the knowledge to be gained was not readily apparent or easily understood. A format was needed that allowed participants to clarify or expand on their views. The information sought addressed the same issues covered in the Social Influences on Family Planning quantitative survey, but the expectation was that qualitative data could add nuance and deeper understanding to the topics in question (Corbin and Strauss, 2008, p. 25).

Since the goal was an understanding of community norms and not individual life events/processes, focus group discussions were the ideal format for data collection. A group of unrelated individuals from the same community and with similar backgrounds could contribute an understanding of the attitudes and common experiences of people in said community. Questions were open-ended, leaving participants the chance to contribute a variety of opinions on each topic and take the conversation in a natural direction.

A CARE staff member translated the in-depth interview guide and focus group discussion guide into Luo in country. A second staff member back translated the

documents, and the remaining staff weighed in on translations during a training session. All three guides were pilot-tested in a Siaya community similar to the three communities the participants were recruited from, and modifications were made to the guides following these pilot tests.

IRB

The study proposal and all associated documents fell under the Results Initiative Project: Understanding the Role of Social Change in Promoting Family Planning Use. The Results Initiative Project was submitted to the Emory University Institutional Review Board before the project began and deemed exempt.

Training

All CARE staff who would be conducting interviews or moderating or taking notes for focus group discussions were trained using the Family Health International (FHI) Research Ethics Training Curriculum for Community Representatives (Family Health International, 2004) in lieu of Collaborative Institutional Training Initiative (CITI) Program training. The FHI was deemed an appropriate substitute for CITI, which requires consistent and reliable Internet access that was not always available in the Siaya office. Additionally, the staff was trained in qualitative research fundamentals; cognitive interviewing techniques; focus group moderation and proper note taking; and instructed on the eligibility criteria and desired setting for interviews and focus group discussions. They were shown how to use the digital recorders and allowed to practice with them.

Participant Recruitment

Recruitment of all interview and focus group discussion participants was facilitated through community mobilizers. These individuals were well known to the

CARE staff, had experience recruiting for other events, and maintained positive relationships with the community and influential individuals, such as the chief. After identifying individuals who fit the study criteria, they explained the study and established a time and location for the interview or focus group discussion. Nine men and ten women, married and 18-45 years of age, were purposively sampled for cognitive interviews. Between six and eight participants were recruited for each of ten focus group discussions. Focus group participants were also married 18-45 year-olds, except for the elders focus groups. Mobilizers identified individuals for these groups who were over 45 years old and considered elders by the community. The purpose of these focus group discussions was to obtain another generation's view on gender norms. Many of these individuals were widowed, and so they did not have to be married to participate.

All participants were recruited from three communities.[2] In order to protect the privacy of the participants, no two individuals from the same household were recruited. Individuals who participated in the baseline survey were excluded due to above-average knowledge of the topics or questions. In two of the focus group discussions, community health workers were excluded due to greater levels of knowledge of health topics that may have inhibited the responses of other group members.

Data Collection

Table 1 shows the number and type of data collected. CARE full-time staff conducted all interviews, and two staff members moderated and took notes for all focus

[2] One community chosen at the beginning of the project was replaced due to recruitment difficulties; a cognitive interview and a focus group discussion were conducted there, but neither was used in analysis due to poor audio quality.

group discussions.[3] All staff members involved in data collection had a minimum of a Bachelor's degree, were fluent in English and Luo, and many had been exposed to research. In two instances, a second CARE field officer was not available for note taking; for one group, a clinic lab technician was recruited and in another a community theater group member was used. Both individuals were given a brief training in the importance of confidentiality prior to participating. Staff of the same gender as the participants conducted all interviews and focus groups, except in the case of focus groups consisting of both male and female elders, when male staff was used. Due to the sensitive nature of some topics, it was hoped that a same-gender interviewer would increase the comfort of participants and encourage open and honest responses.

Interviews and focus groups were conducted in Luo, and in cases where participants asked for questions to be clarified in Kiswahili or English the CARE staff accommodated. Interviews were conducted in private locations, primarily outdoors, and informed verbal consent was obtained prior to beginning. Interviews were between 45 and 90 minutes in length and focus group discussions between 60 and 120 minutes in length. All were recorded using one of two digital recorders (Olympus and Sony). Permission to record interviews was obtained prior to beginning. While traditional incentives were not provided, each participant was given a snack and beverage as a thank you (cost not exceeding KS 20, or $0.25).

Research assistants were debriefed after interviews and focus groups, and notes they took in focus groups and occasionally interviews were transcribed. The guides were

[3] The author observed the female focus group discussions.

revised after several of the interviews if any questions or probes were deemed inappropriate or were incorrectly interpreted by participants.

Table 1

Type and number of interviews and focus group discussions

Participants	**In-depth interviews**	**Focus group discussions**
Married women 18-45	10	4 (1 not audible)
Married men 18-45	9 (1 not audible)	3
Mixed gender elders over 45	-	3
Total analyzed	**18**	**9**

Data Handling

One bilingual research assistant translated and transcribed the audio recordings of the in-depth interviews and focus group discussions from Luo to English. One individual was used for the purposes of consistency, and the first two transcripts were spot-checked by a second bilingual individual for quality. The research assistant was asked to translate verbatim while maintaining the meaning of issues and culturally specific phrases or concepts. For a portion of the interviews and focus group discussions, the research assistant translated verbally while the author transcribed. For all others, the research assistant listened to the audio files and simultaneously translated and transcribed the data. All focus group discussions and those interviews where the field officer took notes were checked against the transcript for accuracy.

Data was stored on the author's personal computer and backed up on a USB drive. The computer and USB drive were password-protected, and only CARE staff and

the translator/transcriber had access to audio files or transcripts. No documents were kept with participants' personal information, and transcripts were de-identified shortly after being transcribed. Focus group discussions were analyzed with MAXQDA-10 software package (VERBI Software, 2010, Germany), and the cognitive interviews with Microsoft Excel.

Data Analysis

Since the goal of the cognitive interviews was to assess understanding of individual scale items, the unit of analysis was each question rather than each participant. An item-by-item approach was utilized (Knafl et al., 2007). A conventional transcript was generated due to the need for translation, but then each participant's response to each item was isolated from the full interview and compared to the rest of the responses to the same question. Participant responses were summarized in order to distill the ultimate interpretation of the question, and agreement or disagreement on meaning was assessed for each item.

The focus group discussions were analyzed using the Grounded Theory approach, which involves identifying themes from the data and developing theory using these themes (Corbin and Strauss, 2008). Codes were identified from one-third of the transcripts (three focus group discussions), and this initial codebook was reviewed, revised, and used to code the remaining data. The codebook was revised as new codes were discovered in the remaining focus group discussions, and major codes and intersections between codes were analyzed.

Focus Group Discussion Results

Participants described a complex decision-making process with regards to issues of fertility and family planning. Data suggests that decisions such as whether or not to use contraception or the number of children to have are influenced by a variety of individual- and community-level factors.

Male decision-making power

The *a priori* expectation that men have more control over fertility decision-making was described by many participants, in particular the men themselves. An emphasis was placed on man as the "*head"* of his household, his family, or his wife, therefore making him the primary decision-maker:

> *I am trying to say, because every day we Luos, the man is the head of the household. The man is the controller of the house. Even if it is the woman who has something, but it is the man who is supposed to decide.* (Male FGD)

Many participants said the man decides, but there were frequently caveats to it. Participants rarely described a unidirectional process where the man simply imposes his decision on the woman without feedback.

> *The man is the authority that makes decisions. If he makes the right decision the wife will adopt and implement but if he makes a wrong decision the wife will also say no and I want it to be like this.* (Elders FGD)

Here, the participant described some contribution of the wife to the decision-making process.

Female decision-making power

Men infrequently mentioned the woman as the sole decision-maker for fertility issues, but when they did it was usually with reference to her biological understanding of pregnancy and family planning. In other words, a woman knows her body and might know better than the man when she needs to space her births.

> *It is a woman that starts this discussion* [about family planning]. *Because there's some who have problems, at times maybe the baby is not OK, or sometimes the woman has some conditions that affects the way she is pregnant, so in most cases it is the woman who starts this discussion.* (Male FGD)

Men also expressed that the majority of family planning methods common in the area are female controlled, and women therefore have more knowledge about them and the ability to implement method use. Similarly, elders stressed that women could *"close the gate"*, and this biological control over fertility gave them the ultimate decision-making power.

Women, on the other hand, called attention to the greater burden women feel as a result of high fertility, giving them the ability to know when family planning should be used and fertility limited.

> *Between wife and husband there are no husbands that accept and say that today these children of ours are enough...there are those people that went to school that understand where the burden is, but the majority cannot. You as a woman are the one that will decide what to do, because it is you who will feel that the weight is much for you to withstand.* (Female FGD)

While women suggested that it might be preferential to include men in the decision-making process, there was equally strong consensus that if their partners disagree the women can still carry out their decisions secretly.

> *They are supposed to be agreeing because this is their burden in their house, but most men some are there that do not want to listen to such discussion such that women hide when going for family planning.* (Female FGD)

Most men acknowledged that this covert use takes place, often describing it as *"cheating"* the partner when a woman implements a plan different from what the two agreed upon:

> *The way I see it, in most cases it is the woman who makes the decision because she is the one to be injected. Even if she cannot decide alone, she will cheat you that she has made the decision, and yet she has not.* (Male FGD)

One male participant said this covert use was *"like living with an enemy in the house that is doing things without my knowledge."* Women, and many female elders, expressed the need for this deceit, however. As expressed by the previously mentioned female participant, many women said that there are *"no husbands that accept"* use of family planning.

The stress of hiding family planning use was compounded by the stress many women claimed due to their roles as primary caregivers of the children and their houses. Many said that men were absent too often to understand the daily requirements of life. This was sometimes because they had moved away for work, but equally mentioned were the involvement of alcohol and extra-marital sex in keeping men away from the house. The female elders discussed this issue particularly frequently:

> *…The woman remains home as she struggles hoping that the man is also trying to look for something to boost what you have earned, only to realize that whatever he got ends up in drunkardness or sometimes he is immoral and ends up sleeping outside with other women and eventually infects you with virus which kills. And now after the infection the woman who was strong ends up being sickling and cannot work now to provide for the children, so that is the character of men…* (Elders FGD)

Here, the woman discusses the additional issue of men bringing HIV back into their marital relationships as a result of drinking and extra-marital sex.

Mutual decision-making

While all participants mentioned mutual decision-making infrequently, men discussed the need for it more often than women. They often described the importance of discussing issues such as family planning together, because both people play roles in the relationship:

> *These children when giving birth to them, a child cannot be got with a woman or man alone and therefore the decision of the number of children that we would like to have in the house should be something that we must discuss with my wife because it is not me that would like to give birth and it is not her that would like to give birth, it's not me that would like to educate them and it's not her to do the same, we would like to do all these things together.* (Male FGD)

Men also acknowledged, however, that they could be *"difficult"* to reach agreement with on issues of family planning.

Despite this expressed need for mutual decision-making, however, participants often retained an undertone of male dominance. Men in particular said that a couple should decide together, but that the man would try to *"move her closer to my side"*. One female participant, when asked who could initiate a discussion of family planning, suggested that consensus might be reached more easily if the man began the conversation:

> *I can say that both of them because sometimes it is the woman that can start and sometimes the husband. But I am sure that if it is initiated by the husband, then to reach an agreement becomes easy.* (Female FGD)

Community influence

In addition to decision-making at the couple level, participants often talked about a woman's *"name"* in the community and the desire to be seen as a good person. This influenced their decisions to use contraception. Participants from each type of focus group linked family planning to promiscuity or extra-marital sex. Elders in particular emphasized that contraception should not be necessary for married couples:

> *Me, I am saying a woman who is married should not use any protection, because that is her husband. So if the man knows he has other relationships, then he should use protection, if he knows that he needs to use protection.* (Elder FGD)

There was also a noticeable emphasis placed on fertility by almost everyone:

> *When I marry, I marry a woman to give birth. I'll also be happy when I see that I have children…because Luos say that a woman that does not deliver is lur* (Luo, barren). (Male FGD)

All focus group discussions featured a conversation about the importance of children, and that a house would *"not be happy"* without children in it. Couples are expected to have children shortly after marrying.

Finally, participants frequently mentioned that Luo culture places more value on a man's opinion than a woman's. One female elder described how these community attitudes manifested in an extreme way to impact her personal decision to use family planning:

> Participant: *The reason why I say that it is the man that makes the decision, personally if we agreed that I stop giving birth I went to* _____ (city) *and when I met the doctor he/she asked me to go and bring the father to my children to consent is when he/she can perform BTL* (bilateral tubal ligation) *and that is why I realized that man is the person with the power such that in case he refuses then nothing can be done.*
>
> Interviewer: *Can you remember when this happened?*
>
> P: *I cannot remember because after that incident I gave birth to another two children.* (Elder FGD)

In this particular case, the emphasis placed on a man's power at the community level literally changed the participant's reproductive history.

External influences

In addition to community-level beliefs about family planning, participants consistently mentioned external factors that impact fertility and family planning decision-making: the financial burden of raising children and the importance of educating children (which was intimately tied to financial concerns).

Interestingly, men and women both cited financial difficulties as one of the primary reasons to limit family size. Both groups felt that they, however, had a better sense of their families' financial statuses:

> *The reason why a man must make decision, you must also know, because if you get ten children and maybe you are earning only 100 shillings, that 100 shillings will not help you when you have ten children…And that is why the man must be the controller…you have to convince her that you see, this number that we have had, it is enough.* (Male FGD)

> *How they are in the house, mostly the woman, it is the woman that initiates the discussion because she is able to see the expenses in the house are overwhelming her.* (Female FGD)

Elders mentioned, in regards to almost every family planning or fertility decision, that life today is *"harder"* and inflation makes it more important to plan one's family. They said that large families were less of a burden when they were having children, but that they encourage their own sons and daughters to limit their family sizes:

> *...I have daughters-in-law, my sons have wives and the way you see I am big, I gave birth to many (twelve) and I always tell them that they must plan their families because the care of today is different from the care of those days when I gave birth to you and therefore try whether you are employed or farming, try and plan your family.* (Elders FGD)

The idea of limiting family size due to financial constraints often intersected with the importance of educating children. There was consensus, across all focus groups, that the cost of sending a child to school (such as uniforms, books, and supplies) places a

major strain on families. Despite the cost, participants considered education as essential to children's future success:

> *Secondly the reason why things like family planning is good, we do see like in the outside world like where the white lady came from, you will find her giving birth to only two children and ensure that they get the best education to be like other people. Yesterday we were having some discussions looking at the sky and saw a plane fly over and we said that was Hon. Orengo* (Kenyan lawyer and Minister for Lands, from Siaya) *and we said that it is because of education that he is able to fly up there and that is why we say that giving birth to few children can enable us to educate them to be people in future.* (Male FGD)

On this issue almost all participants agreed: more children would make it difficult to send the existing children to school and therefore harder for them to *"be people"* in the future.

Cognitive Interview Results

To begin the cognitive interviews, participants were asked what people in their community expect men and women to be like, or what characteristics an *"ideal"* man or woman possesses. Responses, shown in Table 2, were similar for male and female participants and echoed many of the sentiments expressed in the focus group discussions. People expected men to be hard working, married, have children, and assist the community. Men are expected to be leaders and make decisions, and often they were described as the *"heads"* of their households or the women they are married to. Several participants described men as *"breadwinners"* and contributing to development in their

families or communities. An ideal man was often described in terms of his biological ability to impregnate his wife and have children.

Almost all participants suggested their communities expect women to have and care for children. An ideal woman is expected to take care of her house and husband and to respect him. One female participant suggested women are the *"strength"* of their homes because men are frequently gone. An ideal woman was described as someone who is faithful and keeps a good name in the village by not having extra-marital affairs.

Table 3 shows each of the fourteen questions examined in the cognitive interviews and the specific problems identified from the data. Each questions is analyzed in depth below.

Question 1: It is a woman's responsibility to avoid getting pregnant

Almost all participants understood this question to mean that it is a woman's responsibility to avoid getting pregnant after already having children. Several people mentioned the importance of spacing and limiting births, but no one acknowledged that a woman without children would want to or could prevent pregnancy. One female participant asked for explanation of this exact issue:

> Participant F-06[4]: *Responsibility of a woman not to get pregnant after she has gotten children or before? Or what do you mean?*
>
> Interviewer: *Any time. Be it before, or after getting children.*

Her desire for clarification emphasized that two specific scenarios could be drawn from the question: a woman without children, or a woman with children who now wishes to space or limit her births. In general, however, participants seemed to draw on the latter of

[4] Study identification numbers beginning with 'F' indicate female participants; 'M' indicate male participants. 'I' denotes the interviewer.

these two scenarios. The question was intended to mean the responsibility of any woman, not a particular subset such as those who already have children.

Participants interpreted the question to mean that it is upon the woman to use family planning or otherwise prevent getting pregnant, and several female participants mentioned that women feel the *"burden"* of children more than men and the responsibility falls on them for that reason. When asked the specific meaning of "responsibility", responses were varied. The most common understanding was doing a job or something given to someone to do; however, one participant mentioned that certain Luo communities would interpret it as *"liking"* or something the woman would like to do. People almost universally answered that it should also be the husband's responsibility to avoid getting pregnant, indicating that even those who see it as primarily the woman's responsibility still see men having some role in the process.

Q2: A man should have the final word about decisions in his home

Participants understood this question to mean that man is the *"head"* of the home and his opinion on an issue is what should be adopted.

F-04: *When a man says something, it has to be done, it will have to happen.*

Few participants mentioned consulting the wife on an issue first. Some participants suggested that women might not agree with the husband but must comply with what he decides. Two male participants specifically mentioned the fact that *"societal norms"* dictate that men must be the *"head"* of the homestead and family, and what he says must ultimately be adopted. Participants universally understood the man in this question as a married man with children and a home. Two participants, one male and one female, misunderstood the term "final word" to mean giving birth or having a certain number of

children. All other participants understood it meant the last decision or the end or conclusion of a discussion.

Q3: A woman should tolerate violence to keep the family together

The majority of participants interpreted this question to mean that a woman *"goes down"*, or acquiesces, to her husband's anger to maintain peace and order in the house. Two participants, one male and one female, felt the question also meant the woman was the cause of the violence due to being *"thick-headed"* and *"wicked"*. The rest of the participants, however, suggested the question meant the man became annoyed or harsh and began an argument. Multiple participants took the question to mean a woman should *"persevere"* and *"swallow"* her words. One female participant interpreted it to mean that a woman should take care of her house and remain connected to it without *"roaming aimlessly"*, a term used often in Luo culture to suggest extra-marital affairs. This was the only participant to interpret the question in this way. Most participants interpreted the word *"violence"* to mean disagreements, fights, and squabbles. Three participants, however, connected the term to physical violence such as beating and injuries:

F-01: *This can lead to even death.*

I: *Death, how? Mmmm. How can it lead to death, mmmm? How can it lead to death?*

F-01: *You can fight, causing injuries.*

One male participant mentioned the woman poisoning the husband, suggesting a misinterpretation of the question. Almost all participants understood the woman in the question to be a married woman with children. Most people felt the term "together" meant *"united"* or staying together in the house as a family without separating.

Q4: My partner has more say than I do about important decisions that affect us

The majority of participants understood this question to mean that the other person in the relationship has better ideas and therefore makes more decisions in the family, which was the general intended meaning. Several men, however, had trouble responding to the question because it was difficult for them to imagine their wives having the power. They responded to the question as if it was asked of their wives, saying in all matters that affect their lives, the man must make the decisions:

M-08: *That one I think the meaning is that in all matters that affect our life, me and my wife, as a man…*

I: *Mmhmm.*

M-08: *A woman can say like that about me when I cannot listen to anything that she says. All that I say are always final.*

Some of the participants were clear that "partner" could mean husband if speaking to a woman or wife if speaking to a man, but they expressed the difficulty of correctly interpreting the question since they could not imagine the woman (the partner) having more power.

M-07: *You know the term "my partner" works either way (both sides) eh. A man can call the wife my partner and the wife can also call the husband my partner.*

I: *Mmmm.*

M-07: *Eh and therefore you know when it is not clarified that which partner has more powers than the other. What I know, a male partner has more*

> *powers than the female partner in making decisions affecting married couples.*

Female participants, on the other hand, easily answered this statement since they connoted the term "partner" with husband. One female participant, when asked to explain why she understood "partner" to mean a husband, said, *"Because I am under him"*. The participant used a physical metaphor to indicate her subordination to her husband, and to her this justified the man having more input in important decisions. Other female participants used similar logic when responding to the question.

Several male participants suggested the partner has more say in decisions due to financial stability or God-given talents such as cleverness. "Decisions" in this question was understood to mean ways to obtain income or food, family planning issues, and decisions regarding children. Almost all participants said there were certain decisions one partner has more say in and some where the other partner has more power.

Q5: A man can hit his wife if she will not have sex with him

For most participants, this question meant that there are times when a woman is not ready to have sex and a man is, and if she refuses him she can be beaten or forced to have intercourse.

> F-02: *That means that there are times when he is ready to be with you, but maybe you don't have the feeling for you to be together, and in that case you will have to start pulling* (have a disagreement).

Participants' responses were often framed in terms of the man's *"right"* and his ownership over his wife's body. One male participant interpreted the question to mean that a woman wants to see that a man is strong and can do things by force. About half of

the participants mentioned beating as the consequence for the woman and the other half mentioned forced sex. One male and one female participant specifically used the term *"rape"* when describing the latter:

M-02: *OK in case one has refused and she is forced to play sex, that one that woman has the right to take the man to a court of law because it is true that this is an assault. You have forced yourself on her, you beat her and raped her.*

While all participants said this was not allowed or against the law in their communities, several situations were suggested where it commonly occurs. Participants had a strongly negative reaction to this question, indicating the social undesirability of it, but responses suggest there are several instances when it is common.

Q6: A couple should decide together if they want to have children

Overall, participants understood this question to mean that a man and wife should sit together and reach a consensus about family size. The nuances occurred, however, in whether this question was interpreted as "*if* they want to have children", "*when* they want to have children", or "*how* they want to have children." The majority of participants interpreted it to mean *"when"*, and they often mentioned the idea of spacing births. In a follow-up question, people emphasized the idea that at least some children are expected and people are thought to have fertility problems if they have not had a child within a certain amount of time after marrying.

I: *And supposing you, this man and wife are married but have not gotten any child.*

M-05: *Yes.*

I: *Can your response be different about the period that one can wait?*

M-05: *Yes the response will be different because when you married, you have finished about six months together and nothing, you must go together to the hospital so that they can establish who has a problem. Me or her.*

Participants said a man might remarry if his current wife is infertile, and some mentioned adopting a brother's children if a couple could not get some of their own. Additionally, multiple people referred to discussing *"how"* they want to have children. Family planning was mentioned several times. The word "together" had a largely physical meaning for participants: to physically sit together without any other people present. Some participants also talked of *"uniting minds"* and bringing ideas together.

Q7: I am more committed to this relationship than my partner is

There were various interpretations of this question, because participants had several different ideas about what type of commitment was being discussed. While one female participant interpreted it to mean commitment by not having extra-marital partners, another participant interpreted it as financial commitment and that one partner contributes more assets to the relationship. Others suggested that it meant one person shoulders more responsibilities in the family than the other or brings more development to the house by working harder, and some others said the level of commitment reflects how much the person has suffered or sacrificed for the relationship. One participant was unsure whether he should be answering from a man or woman's perspective, echoing the difficulties some men had with the phrasing "my partner" in other questions. These various interpretations were reflected in participants' responses to the specific meaning of

"committed." Responses ranged from *"volunteering"* or *"accepting"* to be in that relationship to *"dedication"* to the relationship.

Q8: Changing diapers, giving the kids a bath, and feeding the kids are the mothers' responsibility

Almost all participants similarly understood this question. The general consensus was that activities related to children are the work of women. While participants acknowledged in a follow-up question that the husband could complete those tasks, it was usually only if the mother was out of the house. They generally agreed these are jobs *"assigned"* to the woman because she is closer to the children or understands them better.

Q9: A woman can suggest using condoms just like a man can

Participants' interpretations of this question were often subject to specific circumstances. Several participants interpreted it to mean a woman can also decide to use condoms if her partner agrees:

> F-06: *That means it is only possible when you agree with the man. Maybe you have agreed after talking very well with the man, and then you as a woman decide that you use condoms, because sometimes you can accept to use those things, but the man refuses…And sometimes you refuse, you want to use condoms, you know that can bring misunderstanding and even cause some quarrel in the house.*

Many suggested the statement meant a woman could decide to use condoms if she was not already using other family planning. Others said a woman could use condoms after learning her HIV status or if she or her partner have extra-marital sex. Few participants

interpreted the question to mean a woman has the freedom to use condoms without any such conditions. One participant interpreted the question to imply use of female condoms if a woman's male partner refuses to use male condoms.

When asked why a woman might decide to use condoms, many participants answered for pregnancy prevention or HIV/STI prevention, but an equal number said women are suspected of having extra-marital sex if they want to use condoms. Answers were quite the opposite when asked why a man would want to use condoms. Popular responses were for HIV/STI protection, for family planning use, and if he suspected his partner of unfaithfulness. Two participants mentioned wanting to prevent infecting the partner if the man is already HIV-positive. When asked who the woman in this question was, the majority of participants answered a married woman. Several, however, included she might be a woman who is having extra-marital sex or an unmarried woman who would need to use condoms since family planning could *"negatively impact"* her future fertility.

Q10: A man and a woman should decide together what type of contraceptive to use

Almost all participants interpreted this question to mean a husband and wife should sit down together to decide on a method of family planning. Two female participants suggested less balance between the husband and wife; one said the husband should know what method the woman was using, suggesting she takes it upon herself to choose the method and then informs him, and another woman said if a woman wants to use family planning she must talk with the husband and he should allow it. When asked for the meaning of "contraceptive", some participants described it in terms of its purpose: to prevent pregnancy, to stop giving birth, or to space births. Some people simply said it

was family planning, or any numerous methods of family planning, such as pills, injections, condoms, IUDs, or tubal ligation.

Q11: Men and women should share household chores

Most participants interpreted this question to mean that married people each have duties in the house, and division of tasks alleviates the burden on the family. Almost all mentioned certain tasks that men usually do and others that are mostly the domain of women. While they said the husband and wife could help each other, there was a general belief that people stick to their assigned tasks.

> M-06: *Sharing responsibility, this would mean, for example, one person can take care of the animals and the other person can also remain, like, and do the work of taking care of the child, or even doing household chores.*

One participant interpreted it to mean that the other person does not do the chore the way the other wants it done, so he/she should do it him/herself. When asked what household chores people think of when hearing the question, responses were similar: farming, washing dishes and clothes, chopping firewood, cooking, tending to children, fetching water, sweeping, and taking care of animals. In general, participants said women clean the house and care for the children. Men build or repair things around the home, tend to the animals, and farm. A few participants suggested that both people can do all tasks, or that when a woman is gone the man can do *"woman's work"* such as cooking, but in general there was a gendered division of tasks.

Q12: A woman should not initiate sex

There were several interpretations of this question. Only half of the participants understood it to mean that a woman is not supposed to start sex, or the man is supposed

to be the one to *"start issues of sex"* or *"prepare the woman"* for sex. This was the intended meaning of the question, but other interpretations included that a woman has other partners and does not depend solely on the husband for sex, that she has *"gone astray"* into prostitution, or that a woman should be more selective with her sexual partners.

I: *Now if someone said, "A woman is not supposed to initiate sex," "A woman should not initiate sex", what would it mean?*

F-03: *A woman should take care of herself, without having sex. With anybody.*

Almost all participants agreed the woman in this question was a married woman, but two female participants said it could be a woman who has gotten *"used"* and has no husband. Participants, particularly female participants, were hesitant to respond to this question. When asked at the end of the interview whether there were questions that made them uncomfortable or that they had difficulty answering, they often mentioned this question. They said these are not issues that should be discussed *"in the open"*.

Q13: My partner dictates who I spend time with

The majority of participants understood this question to mean that the husband or wife tells the other who he/she can sit with or selects his/her friends. Several said it meant that someone the partner was spending time with had bad behaviors or gave bad advice, so the other person can advice against associating with him/her. One female participant thought it meant that a man goes to the woman's friends for advice when there is a problem in his marriage. A male participant understood the question to mean the partner should not talk over the other's friends but instead give them the chance to speak. Two male participants again had difficulty with the idea of "my partner" meaning a woman,

because they believed only the husband could tell the wife who she can associate with rather than vice versa. The word "dictate" generally meant determining or deciding for the other person or directing or ordering that person. Most female participants said the people they would spend time with would be other women like them, and one woman mentioned co-wives and parents-in-law. Men, on the other hand, said they could spend time with other men, women (with one male participant suggesting a woman he is having an affair with), or generally anyone with good behavior who does not give *"wrong teachings"* or bad advice.

Q14: When my partner and I disagree, he/she gets his/her way most of the time

The wording of this question proved difficult for many participants to understand. The majority of them had to have it repeated and broken down in order to comprehend it. The most common interpretation was that the husband and wife have different opinions, and the partner (the husband if a female respondent and the wife if a male respondent) ultimately gets what he/she wanted. There were several different interpretations, however, and the only part of the question that was interpreted the way it was intended was the aspect of a husband and wife having a disagreement. The meaning of "disagree" was clear to all. Only three of the eighteen participants comprehended the concept of the other person ultimately getting his/her way, however:

I: ...*"When we disagree or have a misunderstanding with my partner, and in most cases, my partner gets what he or she wanted." How do you understand that, what is the meaning of that?*

M-06: *(Laughter) It is so difficult, because…what I am defeated to explain is how the husband can end up getting what he wanted. Because once you have*

> *had a misunderstanding or have quarreled, the woman can run away to other places, so how will he get what he wanted? Or maybe the man is also annoyed, and he has gone away and nobody wants to move closer to the partner, so how they are saying that one will end up getting what he wanted is what I don't understand.*

This was again more difficult for men to understand because they often had difficulty imagining their partners (in this case women) getting their way more often than men. Participants said disagreements in the question might be about money, sex, HIV, children, family planning, or unfaithfulness. When asked if there were certain situations or issues where one party was more likely to get his/her way, responses were diverse. People said some disagreements would require third party mediation, sometimes the man would resort to violence or forcing sex, or the two might never reach agreement. Some female participants suggested the woman might be able to talk the husband into doing what she wanted.

Finally, participants were asked if there were any questions they did not understand, only two participants (one male and one female) admitted to having trouble with any of them. When asked how the questions made them feel, however, more participants acknowledged that questions specifically related to sex made them feel uncomfortable and could potentially be difficult to answer truthfully if presented in a survey. Some participants specifically mentioned what is expected of men and women in their communities and said they might be hesitant to answer in a way that goes against these expectations. For example, one man said he believed that men can assist women with household chores, but Luo culture *"dictates"* that men should not do such tasks.

Table 2: *Desired characteristics of and expectations on men and women*

Men	**Women**
Married, has children, able to perform sexually	Married and has children, "good eggs"
"Head" of the woman, family, household	Cares for children and house
Takes care of family, produces basic needs	Keeps house and husband clean
Takes care of home, development, education	"Strength of the home"
Brings income, sole provider, breadwinner	Works hard
Takes care of animals, farms	Respects husband
Hard working, independent	Takes care of name, does not have affairs
Assists with jobs a woman cannot perform	Farms, has a small job
Makes decisions, leads people	Lives well with people; "community wife"
Open with people; contributes ideas in village	Polite, welcomes visitors
Understanding, talks nicely, peaceful	Humble, loving, caring
Protector, strong, powerful, courageous	
Nothing, men are often gone	

Table 3: *Scale questions and main problem identified*

Scale question	**Main problem identified**
It is a woman's responsibility to avoid getting pregnant	Reference to married woman with children rather than any woman
A man should have the final word about decisions in his home	Intended meaning understood
A woman should tolerate violence to keep the family together	"Violence" understood as any fight, quarrel, not specifically abuse
My partner has more say than I do about important decisions that affect us	"My partner" not applicable for some men
A man can hit his wife if she will not have sex with him	Discomfort with question but intended meaning understood
A couple should decide together if they want to have children	Interpreted as "when" rather than "if"
I am more committed to this relationship than my partner is	Confusion about type of commitment question referred to
Changing diapers, giving the kids a bath, and feeding the baby are the mothers' responsibility	Intended meaning understood
A woman can decide to use condoms just like a man can	Various circumstances that must be met in order to make statement true
A man and a woman should decide together what type of contraceptive to use	Intended meaning understood
Men and women should share household chores	Intended meaning understood
A woman should not initiate sex	"Initiate" sometimes interpreted as prostitution, having multiple partners
My partner dictates who I spend time with	"My partner" not applicable for some men
When my partner and I disagree, he/she gets his/her way most of the time	Phrasing difficult for multiple participants

Chapter 4: Discussion, Recommendations, and Conclusion

Discussion

Measurement of gender and power norms poses unique challenges given the context-specific nature of the issues (Gesink et al., 2010; McCabe et al., 2009). Assessing understanding of the questions is important to ensure any quantitative instrument is able to accurately capture the circumstances in the study setting. The purpose of this study was to use cognitive interviews to examine participants' understanding of questions from a gender and power norms scale in Siaya, Kenya.

Few studies have used cognitive interviewing as a tool in gender and sexual health research, but those that have used it have demonstrated its effectiveness in improving quantitative instruments (Gesink et al., 2009; McCabe et al., 2009). This study demonstrates that cognitive interviewing, and particularly cognitive interviewing in conjunction with a qualitative exploration of gender norms, reveals differing interpretations of many questions from a gender and power norms scale.

Results from the focus group discussions show that complex decision-making processes and power dynamics exist between marital couples in Siaya, Kenya. General consensus, and publicly acceptable opinion, is that the man is the *"head"* of the house. Women, however, expressed that they are more responsible for making the reproductive decisions when men are absent or disagree with the need to use family planning. For this reason, women's fertility decision-making is often secretive. Women who make a decision that is considered to threaten community norms, such as regulating their fertility or disagreeing with their husbands, must often take it upon themselves to put their plans into action without informing their partners.

This uncertainty over who should hold the power in a relationship is echoed in Cohen and Odhiambo's 1989 exploration of Siaya, in which they emphasize the confusion over where women stand in Luo society. They underscore the need for a woman to *"comply outwardly with her husband's wishes"*, but privately needing to grapple with the reality of making the day-to-day decisions when men are absent or deceased (Cohen and Odhiambo, 1989).

Despite the fact that women often take it upon themselves to regulate their fertility, all participants (men, women, and elders) mentioned community-level norms surrounding these issues. The frequency with which these topics were mentioned in conjunction with fertility decision-making makes it clear that community-level beliefs play a role in the individual decision-making process. Additionally, although participants expressed some extraneous circumstances that would impact their family planning decision-making, they most often voiced the "expected" course of action according to what community gender norms dictate. The level of covert decision-making by women emphasizes the fact that there are publicly acceptable roles women must play, regardless of what decisions they make in private.

Results from the cognitive interviews show that participants' understanding of particular questions and the intended meanings were sometimes different. Problems with interpretation could be synthesized into five main classifications (table 4).

Table 4: *Problems identified through cognitive interviews*	
Problem classification	**Number of questions**
Awkward wording	1
Conceptually misunderstood	4
Conditional (various circumstances to be met for statement to be true)	1
Single word/phrase misunderstood	3
Understood as intended	5

Five of the questions were understood as intended by almost all participants, and these were often the questions that aligned best with community gender norms. Questions such as, “A man should have the final word about decisions in his home”, were not difficult for male or female participants to interpret, possibly because these statements support local gender norms.

Only one question confused the majority of the participants, and this was due to awkward wording: "When my partner and I disagree, he/she gets his/her way most of the time." Most participants were unable to explain the meaning of this statement, and this seemed to be due to lack of sentence coherence once translated into Luo. This suggests the question should be reworked to be more understandable to men and women in Siaya.

Three of the questions were understood except for a particular word or phrase that had multiple interpretations, suggesting that the specific word might be unclear in this study setting. The term “committed” in the question, “I am more committed to this relationship than my partner is” was interpreted as several different ways to be committed to the relationship. The word “initiate” in the question, “A woman should not initiate sex” was thought by some to mean broaching the subject with the partner and by others to

actually physically initiate the act of sex. Others thought it implied prostitution or selling sex. The term "violence" in the question, "A woman should tolerate violence to keep the family together" was often interpreted as any quarrel or fight in the house rather than physical violence. Replacing these terms with language that is more specific to the study setting may improve overall question understanding.

Misunderstanding of one question was attributable to the specificity of the question: "It is a woman's responsibility to avoid getting pregnant". Multiple conditions had to be met in order for this statement to be true, and so participants were bringing additional information into the question in order to explain it. By clarifying what type of woman the question is referring to, or specifying her circumstances, participants would not have to draw upon their own perceptions of the scenario to answer the question.

Four questions fell under the category of conceptual misunderstanding, where participants' interpretations of questions seemed to be influenced by perceived community gender norms. Here, results from the focus group discussions informed the analysis of the cognitive interviewing data. The focus group discussion results reveal that, regardless of the complex individual-level decision-making process that occurs, community norms still influence people's decisions. This may also manifest itself in how participants are able to interpret questions on sensitive subjects, such as fertility and family planning. In the cognitive interviews, participants seemed to have more difficulty with questions that contradicted community gender norms.

Participants incorrectly interpreted some questions because they applied their perceptions of what men and women should do. For example, almost all participants interpreted the question, "A couple should decide together if they want to have children"

to mean deciding the timing of children, or when to have children. The idea that a couple might decide not to have children at all was likely inconceivable in a society that puts a large emphasis on fertility, demonstrating how influential gender norms may be when participants are internalizing questions.

Additionally, male participants had difficulty understanding the term "my partner" to mean wife if it would place the woman in a position of power. Some male participants even expressed that they understood what the term meant out of context, but once in context it was nearly impossible for them to interpret the question to be referencing a woman. Four questions feature the phrase "my partner", and several men had problems with three of them. This suggests the need to change the phrase to something more explicit, such as "husband" for female participants and "wife" for male participants. While the scale was shown to be effective with both men and women in the survey analysis, these differences between male and female interpretation may indicate the need to create separate versions for each gender.

Study Limitations

There were some limitations to this study. While cognitive interviews are qualitative in nature, and a sample size calculation is not indicated, it is possible that the sample size was too small to capture the full range of opinions and issues present in the study setting. Some previous research suggests cognitive interviewing is more beneficial when a larger number of interviews are conducted (Blair et al., 2006); however, saturation was reached in this study and additional interviews were not deemed necessary. Several research assistants conducted the interviews, and individual interviewing style may have elicited different responses. This was alleviated as much as

possible by training all interviewers in the same way and debriefing interviewers throughout the process.

Due to limited time and funding, only one round of interviews could be completed, and so the survey was not revised and retested based on participant feedback. This could have lead to false identification of problems and may lead to incorrect revision of questions, given that only the author analyzed the data. In order to evaluate whether cognitive interviews correctly identified survey problems, it will be necessary to revise the questions using the cognitive interview data and re-administer the survey. Future cognitive interviews will also be necessary to see if a lower incidence of problems is identified after revision.

Study Strengths

To the author's knowledge, this is the first study to examine understanding of questions from a gender and power norms scale using cognitive interviewing techniques. While qualitative work is not generalizable, the results were consistent across participants. This suggests that specific questions from the scale may be problematic in this study setting. Additionally, a sample was chosen that mirrored the type of individuals interviewed in the Social Influences on Family Planning baseline quantitative survey. This purposive sampling method provided data on how the average participant may have interpreted the questions during the quantitative survey.

Another study strength is the rigor with which the interview guide was translated. After an initial translation, a different CARE staff member back-translated the document. This was followed by an extensive session in which all the staff weighed in on the translations and gave feedback for further revisions. Similarly, translations of the audio

files were spot-checked for accuracy, and one translator/transcriber was used for all interviews. This improved the consistency of the translations and quality of the data.

Recommendations

The main purpose of this study was to evaluate participants' understandings of questions from the gender and power norms scale used in the CARE Social Influences on Family Planning baseline survey, and the results of this study reveal important differences between the intended meaning of the questions and what individuals in Siaya actually understood them to mean. The data gives insight into specific problems with the questions, and it will assist in revising and improving the scale for future use. Table 5 offers the author's recommendations of question revisions based on the cognitive interviewing data.

The scale should be revised based on the cognitive interviewing data and re-administered in the study setting. Another round of cognitive interviews is advisable, since this will clarify if question understanding improved after the first revision of the questions. Additionally, future studies of this nature should incorporate cognitive interviewing into survey development and validation in order to create quantitative instruments that are as appropriate and well understood as possible in a particular study setting. Adding an additional qualitative component, such as focus group discussions, may help to further clarify why participants have difficulty interpreting some questions.

The focus group discussion results, in addition to providing context and clarity to the cognitive interview data, provide important insight in their own right. The data reveal potential inroads for family planning programming. Results show that both men and

women often assume to know what the other gender desires when it comes to fertility and family planning, but these assumptions are frequently inaccurate. Improving couple communication on these issues, and encouraging openness in relationships, may result in more mutual decision-making and improved reproductive health.

Additionally, several external factors play a role in influencing men and women's fertility desires. The financial implications of children and the importance to most people of education could be used as ways to promote family planning use and limiting family size. This may be particularly true for men, who emphasized the desire to improve their children's circumstances through education.

An additional finding from the focus group discussions is that there may be unique issues surrounding unplanned pregnancy decision-making. Participants described a course of action in these situations that seemed to defy community norms, particularly for young women. There were also differences between a married woman's course of action compared to a young woman's and also who would make decisions about these pregnancies. While not relevant to the purpose of this study, this is an issue that warrants attention and should be further explored in the study setting.

Conclusions

Cognitive interviews allow researchers to understand how participants interpret questions, and using this methodology in gender and sexual health research has the potential to improve the quality of quantitative instruments. As the Gender Equitable Men Scale and the Sexual Relationships Power Scale have both been shown to be effective measures of gender equity and relationship power dynamics in other contexts,

understanding how to tailor these scale questions to new settings and populations could assist in gaining a greater wealth of information on these issues.

This study demonstrates that cognitive interviewing can be used successfully to elucidate participants' understanding of questions from the CARE gender equity and power scale, and it helped to uncover differences in interpretation by gender that were not readily apparent through previous quantitative research. Additionally, exploring the perceived gender norms of the study setting revealed precisely why some questions were conceptually difficult for participants.

Several questions were understood in the way they were intended to be and this suggests that, overall, the scale is valid for use in Siaya, Kenya. Revision of specific questions, based on the cognitive interview results from this study, may improve question understanding by future survey participants and thereby improve the quality of the quantitative data elicited. This will result in a more accurate picture of gender and power norms in Siaya and potentially lead to improved reproductive health programming.

Table 5: *Suggested revisions of scale questions*

New scale question (Siaya specific)	**Original scale question**
It is a woman's responsibility to avoid getting pregnant, **whether she is married or not**	It is a woman's responsibility to avoid getting pregnant
A man should have the final word about decisions in his home	A man should have the final word about decisions in his home
A woman should tolerate **abuse** to keep the family together	A woman should tolerate violence to keep the family together
My **husband/wife** has more say than I do about important decisions that affect us	My partner has more say than I do about important decisions that affect us
A man can hit his wife if she will not have sex with him	A man can hit his wife if she will not have sex with him
A couple should decide together if they want to **start having** children	A couple should decide together if they want to have children
I am more **dedicated** to this relationship than my **husband/wife** is	I am more committed to this relationship than my partner is
Changing diapers, giving the kids a bath, and feeding the baby are the mothers' responsibility	Changing diapers, giving the kids a bath, and feeding the baby are the mothers' responsibility
Any woman can decide **at any time** to use condoms just like a man can	A woman can decide to use condoms just like a man can
A man and a woman should decide together what type of contraceptive to use	A man and a woman should decide together what type of contraceptive to use
Men and women should share household chores	Men and women should share household chores
A woman should not **start** sex	A woman should not initiate sex
My **husband/wife tells me** who I **may** spend time with	My partner dictates who I spend time with
When my **husband/wife** and I disagree, he/she **wins the argument** most of the time	When my partner and I disagree, he/she gets his/her way most of the time

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Appendix I: CARE Gender and Power Norms Scale

GENDER RELATIONS:

51. I would now like to read you some statements and for each one I would like you to say on a scale of 1 to 5 the extent to which you agree with the statement – where 5 represents total agreement and 1 is total disagreement

A. Men need sex more than women do
1 2 3 4 5

B. You don't talk about sex, you just do it
1 2 3 4 5

C. It is a woman's responsibility to avoid getting pregnant
1 2 3 4 5

D. A man should have the final word about decisions in his home
1 2 3 4 5

E. Men are always ready to have sex
1 2 3 4 5

F. A woman should tolerate violence to keep the family together
1 2 3 4 5

G. My partner has more say than I do about important decisions that affect us
1 2 3 4 5

H. A man needs other women even if things with his wife are fine
1 2 3 4 5

I. A man can hit his wife if she will not have sex with him
1 2 3 4 5

J. A couple should decide together if they want to have children
1 2 3 4 5

K. I more committed to this relationship than my partner is
1 2 3 4 5

L. Changing diapers, giving the kids a bath, and feeding the kids are the mothers' responsibility
1 2 3 4 5

M. A woman can suggest using condoms just like a man can
1 2 3 4 5

N. A man should know what his partner likes during sex
1 2 3 4 5

O. A man and a woman should decide together what type of contraceptive to use
1 2 3 4 5

P. A real man produces a male child
1 2 3 4 5

Q. Men and women should share household chores
1 2 3 4 5

R. A woman should be able to talk openly about sex with her husband
1 2 3 4 5

S. A woman should not initiate sex
1 2 3 4 5

T. My partner dictates who I spend time with
1 2 3 4 5

U. When my partner and I disagree, he gets his way most of the time
1 2 3 4 5

V. I feel comfortable discussing family planning with my partner
1 2 3 4 5

W. I feel comfortable discussing HIV with my partner
1 2 3 4 5

Appendix II: CARE International Approval for Summer Internship Letter

CARE Kenya
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March 9 2010

To Whom It May Concern:

RE: Internship opportunity for Smith, Danielle Nicole

Danielle Nicole Smith an MPH student training at the Rollins School of Public Health at the Emory University in Atlanta USA has requested CARE International in Kenya (CIK) to give her an opportunity to complete her summer internship in Kenya. The internship is a requirement for her MPH studies.

While in Kenya, Danielle will spend time with the CARE Family Planning Results Initiative project in Siaya office for 10 weeks. She will be working on collecting qualitative data to understand how men and women respond to questions in the Family Planning Results Initiative (RI) baseline survey.

We believe that besides fulfilling her training requirements for the training, Danielle's work will also provide lessons to the program team at the Siaya office where she will be based during her summer internship.

This is therefore to inform the concerned that CARE International in Kenya (CIK) has agreed to host Danielle during her summer internship and provide the necessary support to enable her realize her internship objectives.

Yours,

Yours sincerely,

Gary McGurk
Acting Country Director
CARE International in Kenya

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