Community Participatory Research in HIV/AIDS Prevention: An Exploration of Participation and Consensus

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ABSTRACT: This article reports on an investigation into the extent to which individual involvement in community participatory research activities on HIV/AIDS created agreement or consensus among participants from four Malawian communities about the causes, risks, and behaviours associated with AIDS transmission in their communities. In this research, cultural consensus analysis was used in an exploratory manner to measure the level of agreement among participants prior to and immediately following participation in community participatory workshops. The results demonstrate variability by community and gender in the levels of consensus, or agreement, achieved through the workshops. These findings suggest that consensus is not an automatic outcome of participation in small group interventions and in some cases can result in less agreement on community issues around HIV. Moreover, we lack a clear understanding of how consensus contributes to desired or positive change. Also discussed is the potential utility of cultural consensus analysis as a tool in evaluating the effectiveness of community participatory interventions.

KEYWORDS: HIV/AIDS, cultural consensus, cultural models, participatory research, Sub-Saharan Africa

Introduction

Community participatory research is a cover term for a range of contextually directed interventions that involve community members in addressing problems at a local level. Generally, these interventions attempt to engage members of the community in the research process to produce information for programme planning and to stimulate critical awareness and reflection among community members about the issue or problem targeted for change.

The current diversity of research activities described as participatory often makes establishing bounds around these research activities difficult. As Minkler and Wallerstein (2003) note, action research, participatory research, collaborative action research and participatory action research are all titles given to various modes of research that potentially fall under the more general rubric of community-based participatory research.

Regardless of the number of titles and variants, we can identify core principles within the body of projects sharing this title:

1. Research that is participatory in nature is concerned about power within the research process and calls for greater involvement of the subjects in the research. Important changes occur as a result of undertaking the reflexive activities of identifying power
and authority over oneself and then seizing one’s own authority or voice (Hagey 1997).

2. Collaborative or participatory research requires people not formally trained in research to become involved in conducting inductive research on themselves. In contrast to other research methodology, where the goal is ‘knowledge for understanding’, participatory research involves the development of ‘knowledge for action’ (Cornwall and Jewkes 1995: 1667).

3. Research that is participatory is tied to programmes for which change in the group or community is one of the goals.

Benefits identified for adopting a participatory approach to community research include helping communities identify their problems, issues and strengths (Hagey 1997); providing rapid feedback of information from the research to the community (Kesby 2000); building community research capacity (Schensul, Weeks and Singer 1999; Singer 1994); and increasing the likelihood that the results of the research will be used in the communities where the research was conducted (Schensul 1987).

There is increasing demand for research that is contextual and participatory in nature, particularly in resource-poor settings. One arena of social research where there has been particular demand for community participatory research approaches is in HIV/AIDS prevention. In the African setting of this research, community participatory research activities have been coupled with more traditional development and prevention activities, or are sometimes used as stand-alone interventions within communities of people, to help them address changes related to HIV/AIDS.

Understanding the Community Participatory Approach

Despite growing interest, limited research has gone into understanding the micro-structural changes promoted through the small-group processes that form the core of most community participatory activities (Beeker, Guenther-Gray and Raj 1998). Too often, users of participatory methods state that the aim in using such methods is to empower participants, while lacking a means of measuring changes fostered through such activities. This is particularly true in developing-world settings where such methods are often used without necessary technical and programme resources.

A less articulated aspect of the participatory process, but inherent to the goals of implementing participatory research or any health planning or policy process where multiple constituents are involved, is the effort to form agreement, or consensus, among community members regarding problems and priorities, with the goal of mobilising those involved around these priorities. Although rarely explicitly stated as an objective in community participatory research, there is ample discussion of agreement as one of the outcomes sought in its conduct (Cornwall and Jewkes 1995; Kesby 2000; de Koning and Martian 1996; Park 1993). Further, practitioners of community participatory research (Lasker, Weiss and Miller 2001; Naylor et al. 2001; Van Gilst et al. 1997) have suggested that one of the critical elements of evaluating participatory research activities is whether participants can reach a consensus on project goals and activities.

To date, most studies that consider the consensus aspect of community participatory research activities have examined the quality of partnerships and have not looked at the quantity of agreements that results from such collaboration in the research process.

Current Research

The research described in this article attempts to fill this gap in understanding through investigating the dimension of agreement as demonstrated in a set of community participatory
research activities conducted in an African community. It describes a process used to determine whether activities conducted as part of a set of community participatory HIV/AIDS prevention workshops promoted increased agreement among community members concerning problems and priorities related to HIV/AIDS in their communities.

Theoretically and methodologically, this research draws on the field of cognitive anthropology in conceptualising and measuring group agreement. Cognitive anthropology, the branch of anthropology concerned with how humans think and organise their world (D’Andrade 1995), provides theory and methodology useful in examining shared community or cultural knowledge. In particular, the analytical procedure of cultural consensus analysis can be used to measure levels of agreement between groups of workshop participants prior to and after participating in the community HIV/AIDS prevention workshops. Cultural consensus analysis, a non-probabilistic mathematical procedure for measuring the level of agreement among a set of informants on elements of cultural knowledge, is based on individual responses to a set of structured questions that refer to a single cultural domain (Romney, Batchelder and Weller 1987).

A particular strength of using consensus analysis is that it uses local community concepts, identified through ethnographic research, in evaluating agreement. This contrasts with other methods used in considering group performance in the participatory process in that it does not rely on outside or subjective measures or scales used in efforts to examine dimensions of participation (Lasker, Weiss and Miller 2001; Naylor et al. 2001; Kelly and Vlaenderen 1995).

Methodologically, the use of consensus analysis rests on the assumption that there is a shared pool of knowledge within a group or community with regard to HIV/AIDS that can be changed through participatory activities and, subsequently, measured using formal analysis. Theoretically, consensus, or agreement, is seen as an element in a process of change, vis-à-vis the forming of new cultural models among interacting workshop participants, and something to be achieved through the participatory research activities.

**Research Setting**

In Malawi, the prevalence of HIV infection in adults is 15 per cent and reaches as high as 30 per cent in distinct populations such as sex workers and perinatal clinic attendees in urban settings (Dallabetta et al. 1993; UNAIDS 2002). There are an estimated 800,000 to 1 million people infected with HIV in Malawi, a country of 11 million (UNAIDS 2002). Multiple partnering and transactional sexual exchanges are contributing to the continued spread of HIV/AIDS, particularly among 14- to 29-year-olds (NACP 2000).

Because there is no cure and treatment is available to only a small portion of the population, preventing the spread of the HIV virus remains essential for lessening its impact. Because heterosexual intercourse is the principal mode of transmission, much of the prevention effort has focused on modifying sexual behaviours to reduce individual risk of infection. Most interventions focus on increasing individual knowledge concerning the disease and promoting personal methods of risk reduction, such as abstinence and condom use. However, the continued spread of the virus suggests only moderate success in meeting the challenges of HIV/AIDS in this setting.

A particular challenge to addressing HIV/AIDS in many African nations is a lack of community recognition or dialogue on HIV/AIDS and its related issues. Almost twenty years after the first case of AIDS was diagnosed, HIV/AIDS remains in Malawi a taboo subject, a topic avoided by church and state and only minimally addressed through medical services, despite an increasing number of infections and deaths from HIV/AIDS.
Community and research activities took place from December 2001 to November 2002 in the town of Embangweni. Situated in the southern part of the Mzimba district in northern Malawi, this community comprises seven villages, all located around a Central Church of Africa mission station. This town serves as a central hub to many villages in its district because of its mission hospital, schools and trade centre.

The major ethnic groups of the north are Tumbuka, Ngoni and Ngonde, with Tumbuka being the predominant language in the North-Central region. The Ngoni people, descendents of the Zulu, settled in the region in the nineteenth century and have dominated local political authority and influenced many cultural practices. Households are organised patrilineally in compounds of extended family. Polygamy is present among some Ngoni. Most families living in the Embangweni area are engaged in small-plot subsistence farming, with maize being the mainstay of farm production and with some tobacco and peppers sold as cash crops. Ninety per cent of the population identifies as Christian, with Presbyterian being the most common church.

**Community Participatory Activities**

The ‘Drama Dialogue Planning and Production Model’ (Poehlman et al. 2002), which provides the setting for exploring the dimension of agreement in community participatory research, was a pilot effort to combine traditional methods employed in participatory research, such as community mapping, visual diagramming and role plays, with drama planning and production skills in a set of community workshops.

In responding to a lack of awareness and dialogue on HIV/AIDS issues in the community, as identified by a local AIDS organisation and the sponsor of the community participatory research activities, the aim was to create a cohesive community intervention that leveraged local knowledge and understanding of HIV/AIDS causality with a popular form of communication for the purpose of increasing or promoting HIV/AIDS prevention and care in communities.

Following the ‘Drama Dialogue Planning and Production Model’, community workshops were conducted separately in four of the villages in the Embangweni community: Kakoma, Foster Jere, Takumanapo and Kabira. Between fourteen and sixteen individuals from each village volunteered to participate in the workshops. In matching the standards set by the Malawian government for other HIV/AIDS-related community activities, participants solicited through village committees were of mixed gender. Although many of the participants had expressed some previous interest in HIV/AIDS in their communities, none had formal training in HIV/AIDS prevention work.

In each village, it took approximately six weeks to complete four full-day workshop sessions, to complete one half-day workshop session and to plan and implement the community drama presentation that made up the ‘Drama Dialogue Planning and Production Model’.

The workshops started with visual diagramming activities, such as free listings, rankings and flow diagrams, where workshop participants identified and assigned values, in terms of severity or importance to community, to issues related to HIV/AIDS. Figure 1 demonstrates the results of a flow diagram activity done with members of one village. For this exercise, workshop participants were asked to identify some of the different community or social factors contributing to HIV/AIDS problems in their community; then the participants worked together to organise and show relationships between the various factors. The activities were done using sheets of paper on the floor of a community household.

After identifying and considering both ramifications of and solutions to the issues affecting each village, the groups were presented with
the overarching task of putting on dramas depicting local issues (e.g., orphan care, couple counselling and testing, and discordant couples) to share information and understanding gained through the research process.

The use of drama as a tool in community change has a long history in Africa, where it can be seen as an indigenous model for social change, an extension of the oral tradition, and an important idiom (Kerr 1998). Theatre for Development (TfD) arose in Botswana in the 1960s and Ahmadu Bello University in Nigeria pioneered the use of dramas as a tool for mobilising communities for social change in the 1970s (Byam 1999). More recently, as a participatory method, drama has been promoted as a means of effecting change around HIV/AIDS in communities. The process of drama building is thought to stimulate creative conflict, conflict that is thought to potentially lead to both critical reflection and action in terms of community attitudes and behaviours (Cornwall and Jewkes 1995).

In developing their dramas, participants first engaged in role-playing activities where they explored issues of power and gender as they related to the identified HIV/AIDS issues. Workshop participants then developed several differing short dramas that identified social practices contributing to HIV/AIDS, surfaced the challenges or conflicts around these issues, and demonstrated potential social resolution. In selecting the issues to present in drama form to the community, workshop participants also engaged in a specific activity and discussion to help clarify community priorities related to HIV/AIDS.

**Participatory Workshop Attendance**

In total, sixty-one individuals participated in the workshops from the four collaborating villages. Of these, twenty-nine were men, and thirty-two were women.

Following the plan for recruitment, a gender balance was achieved in three of the communities—Kakoma, Foster Jere and Kabira. In Tukumanapo, this distribution became skewed after several men who had been recruited failed to attend.
attend a mandatory introductory meeting. As a result, in Takumanapo, twelve women and only two men participated.

The mean age for the workshop participants was forty-three years. However, this masks some differences in ages among the different intervention groups (see Table 1). Kakoma had the oldest set of participants, ten years older than the mean for all the groups. Takumanapo had the youngest group, with a mean age of twenty-nine.

Among the participants, 84 per cent were married. Of the married group, 14 per cent were part of a polygamous marriage. Most of the participants (70 per cent) had attended primary school. The remaining individuals had completed some secondary schooling, with the exception of one individual who had never attended school. Most participants had lived an average of twenty years in their present village.

Methods

To gauge whether changes in agreement as to community HIV/AIDS priorities occurred among members of the communities participating in the participatory activities, the overall analytical process of a cultural domain analysis (CDA) was followed. Cultural domain analysis is a systematic process for eliciting categorical data from members of a group that can be analysed quantitatively to identify patterns or relationships in the responses. The general steps followed were to (1) elicit from members of the community the content of a cultural domain concerning issues key to HIV/AIDS; (2) ask members of the community to organise the domain, consisting of different associations or relationships between domain items, through a method of systematic data collection; and (3) better visualise the structure of the domain through data-reduction methods.

Consensus analysis belongs to the third step of cultural domain analysis in that, along with other data-reduction techniques such as multidimensional scaling and cluster analysis, it helps us visualise the structure or organisation of a domain—consensus is concerned with the extent to which domain items and attributes are shared. In this research, consensus analysis provides a way to compare pre- and post-measures of group agreement as to priority or importance of key issues concerning HIV/AIDS in the community.

In eliciting a domain of HIV/AIDS, members from a community were asked about the problems HIV/AIDS was causing in their community; key informant interviews were used to determine the specific issues related to AIDS in the overall community. The specific interview format used was in-depth, open-ended interviewing. The sample of individuals interviewed comprised both a convenience sample of community members and others selected based on occupational and social criteria, such as teacher, health worker, and traditional healer.

Through this interview process, participants identified and discussed a range of biological, social and cultural issues relating to the spread and impact of HIV/AIDS. Some of the issues identified through the interviews included the availability and use of condoms, the practice of widow inheritance, the actions of young people involved in transactional sex, the role of family and parents in discussing HIV/AIDS, and so forth.

Table 1: Mean Age, Years of Education, Years Living in Village for Workshop Participants by Villages

<table>
<thead>
<tr>
<th>Village</th>
<th>Kakoma</th>
<th>Foster Jere</th>
<th>Takumanapo</th>
<th>Kabira</th>
<th>All Villages</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>16</td>
<td>15</td>
<td>14</td>
<td>16</td>
<td>61</td>
</tr>
<tr>
<td>Mean Age</td>
<td>52.9</td>
<td>48.1</td>
<td>29.3</td>
<td>39.9</td>
<td>42.5</td>
</tr>
<tr>
<td>Mean Years of Education</td>
<td>8.4</td>
<td>8.2</td>
<td>7.8</td>
<td>7.9</td>
<td>8.1</td>
</tr>
<tr>
<td>Mean Years Living in Village</td>
<td>20.9</td>
<td>23.8</td>
<td>15.3</td>
<td>22.7</td>
<td>20.8</td>
</tr>
</tbody>
</table>
the willingness of couples to receive HIV testing, the acceptance and protection of orphans, alcohol use and risk, and the role that famine and poverty play in peoples’ HIV/AIDS risk.

From analysis of interviews, we developed a list of sixteen HIV/AIDS-related concerns and issues in the community. Domain items included such statements as ‘Men and women look for partners other than their spouse’ and ‘Condoms are not being used in preventing AIDS’ (see Table 2 for the list of domain items). The list was not considered to be exhaustive but rather representative of the more common or general concerns.

With a list of domain items generated, the next step in the domain analysis was examination of its underlying organisation. In this research, informants were asked to make decisions about the domain of AIDS issues in the community along the single attribute of ‘seriousness’ using a ranking task. To develop the needed rankings, we conducted a pre- and post-intervention survey with all workshop participants. After volunteers had been identified for the workshops and had attended an introductory workshop meeting, the researcher and a team of trained research assistants coordinated times to administer the ranking survey prior to the start of the participatory workshop.

In conducting the ranking of seriousness of domain items, we used a card-sorting technique to produce a ranking by each informant on the list of items. The sixteen domain items were printed on index cards. Informants were asked to compare two cards at a time using a quick sort technique to determine which card item represented a more serious problem in the community. At the conclusion of the workshops and community presentations, the task of ranking community issues was repeated with all members of the workshops via post-surveys conducted by the project’s research assistants.

As previously stated, cultural consensus analysis was the specific analytical tool used in visualising the data from the ranking task conducted in the CDA process. Romney, Batchelder and Weller (1987) have outlined a model for consensus analysis of rank-order data, which starts by correlating the agreement in rankings between the informants to create an item-by-item matrix. Minimum Residual Factor analysis is then applied to the correlation matrix to

Table 2: Domain Items for HIV/AIDS-related Issues

<table>
<thead>
<tr>
<th>Domain Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Men and women are not tested to learn their HIV status.</td>
</tr>
<tr>
<td>2. Men and women go to other towns to work and come back with AIDS.</td>
</tr>
<tr>
<td>3. People do not know enough to prevent AIDS and avoid risky behaviour.</td>
</tr>
<tr>
<td>4. People who practice magic and witchcraft are spreading AIDS.</td>
</tr>
<tr>
<td>5. Sugar daddies are tempting young girls to have sex for money.</td>
</tr>
<tr>
<td>6. Traditional practices, such as the labola (bride payment), are causing the spread of AIDS.</td>
</tr>
<tr>
<td>7. Children do not listen to their parents when it comes to relationships and marriage.</td>
</tr>
<tr>
<td>8. Men are paying to have sex with women.</td>
</tr>
<tr>
<td>9. Both men and women look for partners other than their spouse.</td>
</tr>
<tr>
<td>10. Condoms are not being used in preventing AIDS.</td>
</tr>
<tr>
<td>11. Condoms are encouraging young people to have sex.</td>
</tr>
<tr>
<td>12. Parents do not talk to their children about the dangers of AIDS.</td>
</tr>
<tr>
<td>13. Husbands and wives do not talk to each other about HIV.</td>
</tr>
<tr>
<td>14. Women and girls are having sex with men to meet their needs.</td>
</tr>
<tr>
<td>15. People are going to bottle stores and meeting up with people for sex.</td>
</tr>
<tr>
<td>16. People are not being treated for sexually transmitted diseases.</td>
</tr>
</tbody>
</table>
look at the structure of agreement among informants’ rankings. The resulting eigenvalues of the factor analysis are used to determine if a single cultural rationale is responsible for the patterning in the response data. By convention, if the first eigenvalue, which represents an underlying cultural rationale used in ranking the items, is three times that of the second eigenvalue, one concludes that there is significant consensus among the group. The factor loadings from the first factor of the factor analysis also provide a measure of each informant’s agreement with the overall model provided by the group. This number functions as a type of competency score for each individual in regard to their individual knowledge of the cultural shared domain being analysed.

The ANTHROPAC computer program (Borgatti 1996), developed by Steve Borgatti for designing and analysing structured ethnographic data, was used in conducting the consensus analysis on the ranking data from the pre- and post-intervention surveys. The presence of consensus is a good inferential indicator of change; the change within the individual competency scores gives a better means for comparing this change. Using a paired T-test, the competency scores from the pre- and post-consensus analysis were compared for each group.

In addition to conducting the pre- and post-surveys, and similarly to an approach used by Mathews (2000), we used observation to further understand how workshop interactions potentially fostered the development of new, shared understandings concerning AIDS in each of the four research communities. Notes were taken on the information produced by groups in conducting the participatory research and on the groups’ interactions during the workshop.

**Results**

Table 3 reports the result of the pre- and post-consensus analysis conducted as part of the community participatory research in four communities.

In the first two workshop groups, in Kakoma and Foster Jere, consensus was not found in either the pre- or post-rankings of domain items. In fact, in Kakoma, there is an indication that the level of agreement actually decreased slightly after the workshop. This lack of consensus in the two communities suggests that the workshop participants did not view items elicited on AIDS concerns in the community as a coherent domain of items organised along a continuum of seriousness.

<table>
<thead>
<tr>
<th>Community</th>
<th>Pre-workshop Consensus Measures</th>
<th>Post-workshop Consensus Measures</th>
<th>Change in Competency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Eigenvalue Ratio</td>
<td>Mean Competency</td>
<td>Direction of Change</td>
</tr>
<tr>
<td>Kakoma</td>
<td>2.089</td>
<td>.382</td>
<td>Decreased</td>
</tr>
<tr>
<td>Foster Jere</td>
<td>1.344</td>
<td>.110</td>
<td></td>
</tr>
<tr>
<td>Takumanapo</td>
<td>1.719</td>
<td>.267</td>
<td>Increased</td>
</tr>
<tr>
<td>Kabira</td>
<td>1.842</td>
<td>.365</td>
<td>Increased</td>
</tr>
</tbody>
</table>

Shaded boxes signify groups that achieved consensus. Bold numbers signify a P < .05.
However, in the last two community groups, the post-rankings show greater agreement among the informants. This is evident in the ratio of eigenvalue and in the high positive average competency score for the informants, which is another condition for consensus. This suggests the workshops were successful in increasing agreement among informants. Kabira shows the greatest level of change, achieving an average competency of .638 in its post-ranking task.

From the paired T-tests conducted as part of the analysis, one sees a significant change in the competency of workshop participants on the ranking tasks in the two communities that achieved consensus.

In communities where consensus was not reached, review of individual competency scores among participants appeared to show that the majority of those with low scores were males. This prompted running the consensus analysis again, this time dividing the communities into two groups, men and women, for a total of eight pre- and post-groups. Table 4 displays the results of this gendered analysis.

From this new analysis, consensus was only achieved among two of the female groups, with consensus occurring among the women of Takumanapo after the intervention and consensus existing for the women of Kakoma before the intervention.

### Discussion

What do the findings from the analysis of consensus in the workshop groups tell us? With only two of the four community groups (Takumanapo and Kabira) demonstrating consensus among the participants after the workshops, the results of this research are inconclusive as to whether the participatory research activities conducted in the communities led to increased consensus on key community issues among participants. Presently, this research suggests that increased consensus among individual groups is a possible outcome from the participatory research activities, but not a given. Additionally, tempering the finding of consensus in the two communities is the possibility of some kind of learning effect among the organisers of the sessions, which created the potential for greater consensus among those latter groups.

Nonetheless, the findings from the cultural consensus analysis suggest some important considerations for using community participatory activities as consensus-building activities. Firstly, the results suggest a potential to influence consensus in a negative direction in terms of shared agreement. In the case of the community of Kakoma, findings indicate that group agreement was decreased among the group as a whole. More significantly, when examining agreement among the women in the group, we

### Table 4: Eigenvalue Ratios for Consensus by Genders in Workshop Groups

<table>
<thead>
<tr>
<th>Community</th>
<th>Female</th>
<th>Male</th>
<th>Pre</th>
<th>Post</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Eigenvalue Ratio</td>
<td>Mean Competency</td>
<td>Eigenvalue Ratio</td>
<td>Mean Competency</td>
<td>Eigenvalue Ratio</td>
<td>Mean Competency</td>
</tr>
<tr>
<td>Kakoma</td>
<td>7.606 .588</td>
<td>1.403 .426</td>
<td>.92</td>
<td>.304</td>
<td>1.852</td>
<td>.277</td>
</tr>
<tr>
<td>Foster Jere</td>
<td>2.134 .488</td>
<td>1.166 .392</td>
<td>1.139</td>
<td>.346</td>
<td>1.385</td>
<td>.375</td>
</tr>
<tr>
<td>Takumanapo</td>
<td>1.847 .328</td>
<td>4.660 .591</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Kabira</td>
<td>1.491 .322</td>
<td>2.760 .621</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

Shaded boxes signify a finding of consensus.

Empty boxes indicate insufficient N to conduct consensus analysis.
find a strong consensus among women in the group before the workshops. However, after the workshop, agreement among women decreased and failed to achieve the stated threshold for consensus.

Arguably, for Kakoma, the workshops achieved the opposite effect, particularly for its female participants, by decreasing their agreement on HIV/AIDS concerns in the community. Given these results, we must consider whether such activities can function counter to their intended purpose in circumstances where there is already tacit agreement, assuming that one of the purposes of their application is to increase shared understanding.

While it seems likely that people working closely to develop and prioritise local knowledge would experience some convergence in terms of this knowledge, from the findings of this research we may also want to consider another possibility—that people already share some public representation of AIDS, one based on the current public discourse of AIDS in Malawi. The participatory process may encourage the reevaluation of this model, with the result being that the participants develop a diversity of new concerns, particularly in relation to their own structural positions in society. Suggested then is a movement from some shallow, widely shared model to a more individually nuanced model for AIDS understanding, where forms of intra-cultural variation play a role in resulting agreement. Either way, refining our understanding of the process of shaping agreement through further research could prove important to developing a better understanding of those for whom it is appropriate to employ similar community participatory techniques.

Another finding concerns the role of group composition in whether consensus is achieved among a group. When analysis was conducted along gender lines, consensus is found among only two of the female groups. In Takumanapo’s group, made up primarily of women, when the men’s rankings were removed from the model, consensus remained but was slightly diminished. Further, in Kabira, the other group to demonstrate consensus with both men and women, consensus was no longer achieved when men were removed from the consensus analysis. In this instance, men’s views were important to reaching agreement within the group.

These findings from the gendered analysis suggest a need for greater understanding of how communication within and between sexes may promote or inhibit the promotion of agreement within groups. In addition, this leads to consideration of power and differential access to or sharing of community knowledge.

One possibility in interpreting the results, which is perhaps supported by the history of these communities, is that women, through purposeful engagement or more general engagement in health activities, have developed a more defined domain for considering HIV/AIDS-related issues. In particular, the history of engagement of these communities in prevention activities should be considered in light of the gender analysis. Kakoma, which demonstrated high consensus among female participants, has been the focus of many primary health care activities in the past, which, with their strong emphasis on child survival, involve more women than men. Conversely, Takumanapo is a community with a limited history of engagement in community prevention activities. In part, it has received less attention in terms of health promotion because it is in closer proximity to the hospital’s services.

These contextual differences may help explain both differences in the direction of agreement and intra-group variation in agreement as to the domain under investigation. In any case, factors like gender need to be better understood and considered in planning the composition of groups for future participatory research activities.

Another consideration in the results is the correlation between the researcher’s own ob-
servations of the workshop process and the findings from the consensus analysis of groups. From the observations of the workshop activities, the researcher would have concluded that the community participatory research activities conducted in each community led to greater consensus among all of the groups and in the community of Kakoma, in particular.

An example of potential consensus building dialogue was observed in the community of Kakoma. In the conduct of their role plays, Kakoma participants were asked questions about HIV/AIDS risk in the community, and a conversation ensued on how women might ask their husbands to be tested for HIV and what the consequences of asking might be for the women. One woman voiced a concern that asking men about testing would amount to an accusation, causing retaliation, possibly physically. Other women chimed in saying this was a concern. When confronted with this concern, the men begrudgingly acknowledged that the women were probably right. Subsequently, the women were able to adopt a level of ownership over the problem, evidenced by the continued inclusion of this topic in drama activities.

Nonetheless, the cultural consensus analysis does not support this claim as illustrated by Kakoma. One may need to consider the individual social position and power and how these influence public representations. It is conceivable that while participatory activities foster a kind of surface level agreement within groups, this may mask different individual and intra-cultural variations. While this is hardly a revelation, it does bear consideration as to effectiveness of other methods used in evaluating group performance, which often rely on observation as their primary data source.

Conclusion

This research suggests the use of cultural consensus analysis as a tool for understanding the participatory process in communities. Ultimately, however, for cultural consensus analysis to have utility for this kind of research, levels of agreement or consensus must be linked to health outcome measures, both in terms of discrete HIV/AIDS prevention efforts and long-term contributions to the health of a community. Is higher consensus on community health issues beneficial to promoting health-improving activities in communities? If so, which consensus conditions provide the greatest benefits?

To further understand the utility of this approach to evaluating community participatory research, more research is needed that includes more communities and multiple measures of consensus on related health domains to provide a more accurate picture of agreement in terms of health and community knowledge. Work must be done to control for differences between communities in evaluating and understanding consensus change, to better understand the conditions that promote or hinder community agreement. Likewise, repeated measures of consensus need to be made to determine the stability of changes in community agreement. Again, these measures of agreement need to be linked to both short-term and long-term measures of health in communities.

Foremost, this research did not address the outcome measures necessary to form such conclusions, since collecting outcome data for evaluation purposes was beyond the scope of this research. Further, the type of change we are discussing is often slow and systemic, requiring both longitudinal data collection and a variety of methods to detect subtle changes in a community.

Challenges to measuring outcomes, however, should not discourage us from future work in this area. Given the intensive work required to evaluate community-directed efforts in health promotion, if consensus were found to play an important or positive role in changing communities, methods to measure consensus could serve as an important mediating or intermediate variable in evaluating community efforts.
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Notes

1. I would like to extend thanks to the anonymous reviewers for their valuable suggestions on this manuscript. Thanks also to Holly Mathews, Bill Dressler, and Sue Weller for reading and providing comments on earlier iterations.
2. The term ‘visualisation’ is used loosely here to describe any procedure that allows one to better interpret data.

References


