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Nancy Muturi

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If you make reference to this version of the manuscript, use the following information:

Muturi, N. (2014). Alcohol consumption and reproductive health risks in rural Central Kenya. Retrieved from http://krex.ksu.edu

Published Version Information

Citation: Muturi, N. (2014). Alcohol consumption and reproductive health risks in rural Central Kenya. Sexual & Reproductive Healthcare, 5(2), 41-46.

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Digital Object Identifier (DOI): doi:10.1016/j.srhc.2014.01.002

Publisher's Link: http://www.srhcjournal.org/article/S1877-5756(14)00003-2/abstract

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Alcohol consumption and reproductive health risks in rural Central Kenya

Nancy Muturi

A.Q. Miller School of Journalism and Mass Communications,
Kansas State University,
Manhattan, KS 66506, United States

This article was published in Sexual and Reproductive Healthcare Journal.

DOI: 10.1016/j.srhc.2014.01.002

How to cite:

MLA: Muturi, Nancy. "Alcohol consumption and reproductive health risks in rural Central Kenya." *Sexual & Reproductive Healthcare* 5.2 (2014): 41-46.

APA: Muturi, N. (2014). Alcohol consumption and reproductive health risks in rural Central Kenya. *Sexual & Reproductive Healthcare*, *5*(2), 41-46.

Chicago Muturi, Nancy. "Alcohol consumption and reproductive health risks in rural Central Kenya." *Sexual & Reproductive Healthcare* 5, no. 2 (2014): 41-46

Alcohol consumption and reproductive health risks in rural Central Kenya

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Abstract

Objective: The goal of the current study is to explore the perceived reproductive health risks associated with alcoholism from the perspective of rural communities in Kenya where abuse of illicit liquor especially among men has become an epidemic.

Methods: Data for the study were gathered qualitatively through focus groups among community members and in-depth interviews with opinion leaders and key informants who were selected through a snowball method. All recorded data were analyzed through constructivist and interpretive techniques, which started with a line-by-line examination of transcripts for identification of emerging themes.

Results: Rural communities are aware of the lethal nature of the illicit liquor and the severe reproductive health problems associated with it among male consumers. Alcoholism also affects women's sexual and reproductive needs and is attributed to risky sexual behaviors in alcohol-discordant relationships, which puts them at a higher risk of HIV infection.

Conclusions: Results indicate a need to address alcoholism in rural Kenya as a public health problem focusing on education and understanding of the long-term health consequences. Addressing the impact on male reproductive health is crucial because it impacts the wider community. Given the complex relationship between alcohol abuse and HIV/AIDS, it is also important for prevention interventions to target married women and non-alcohol consumers. Furthermore, engaging communities will ensure development of culture- and gender-specific interventions. Such engagement requires facilitation of health practitioners for development of meaningful community-based initiatives.

Background

Substance abuse is one of the risk factors for sexually transmitted diseases (STDs) including HIV and other reproductive tract infections. Within the African context the most commonly used substance is alcohol, which has been directly attributed to the rapid spread of HIV/AIDS [1, 2]. In Kenya, where the National AIDS Control Council and National AIDS (NACC) and National AIDS and STI Control Programme (NASCOP) estimate about 1.6 million people living with HIV and an adult prevalence rate that stands at 6.2% [3], excessive alcohol consumption has been identified as a growing public health concern [4]. The National Agency for the Campaign against Drugs and Alcohol (NACADA) reports the current usage of alcohol (i.e. consumption in the past 30 days) among persons age 15 to 65 years to be more than 14.5%, among them 22.9% male and 5.9% female. This is an increase from 2004 when only about 15% of annual alcohol consumption by persons age 15 years and older was reported [5]. Because of the importance of improving reproductive health, including prevention of HIV and other STDs, the relationship between acute alcohol intoxication and failure to use condoms or other risky sexual practices has been a key area of research focus.

The goal of the current study is to explore the perceived reproductive health risks associated with alcoholism from the perspective of rural communities in Kenya where about 80 percent of the population resides. Though substance abuse problems are countrywide, rural Central Kenya is most affected by excessive consumption of second-generation alcohol. This is unrecorded alcohol that constitutes traditional and illegal beverages made from sorghum, maize or millet, but contains methanol and adulterants such as car battery acid; formalin among other impurities and it is poorly monitored for quality and strength [5]. Consumption of this alcohol has been attributed to many fatalities, which has attracted international attention as a public health problem [6]. Prevention interventions implemented at the national level, which includes public communication through mass media and implementation of law and policies to prevent supply collaboratively with the police force, have failed to impact alcohol consumption behavior.

Based on the culture-centered approach that emphasizes community engagement in defining health problems and development of culture-specific solutions [7], the current study postulates that addressing alcoholism from a public health perspective would yield better outcomes. The Institute of Medicine [8] defines public health as “what we, as a society, do collectively to assure the conditions for people to be healthy” (p.19). Such conditions may include social, environmental and behavioral factors associated with health issues as impacted communities perceived them.

Impact of alcohol consumption on reproductive health

The relationship between alcohol consumption and reproductive health is documented throughout history. In their review, Cook and Clark [1] reported a 1901 study in the Journal of the American Medical Association (JAMA, 2001) which

concluded that “alcoholic indulgence was related to over half of newly diagnosed syphilis infections” (p.156). Alcohol consumption is a primary factor associated with STDs because of its effects on behavior and sexual arousal [9] and it is linked to unsafe and unprotected sex, multiple partnering, commercial sex and sexual violence [10] all of which could result in unintentional pregnancies and contraction of STDs.

There is evidence that alcohol consumption affects male reproductive health, the sexual drive, and performance. For instance, alcohol lowers blood levels of the sex hormone that regulates male sex drive [11], therefore affecting the body’s sex response. Emanuele & Emanuele also report the association between alcohol use and low testosterone and altered levels of additional reproductive hormones [12]. In their study, alcohol consumption in male rats affected their reproductive ability and the health of their offspring, which is attributed to alcohol metabolism, alcohol-related cell damage, and other hormonal reactions associated with alcohol consumption. Moderate acute intoxication also has been found to have effects on motivation to have safer sex [13] and to sexual response. As noted in Shakespeare, “… [alcohol] provokes the desire but takes away the performance” [14]. Additionally, testosterone is immunosuppressive and alcohol exposure suppresses the immune response [15] and increases vulnerability to infections among consumers.

Reproductive health problems in Kenya have been previously reported particularly in relation to the high rates of infertility caused by sexually transmitted infections (STIs) [16]. For instance, rural research has indicated that sexual and reproductive health is a taboo topic [16] and that getting a girl pregnant or contracting a treatable STD in some communities is considered masculine [17]. The focus on men’s reproductive health has, however, not received adequate attention except in HIV/AIDS context. With the onset of second-generation alcohol in Central Kenya it is important to examine consumers’ perspectives on the severity of the problem and how it affects their sexual and reproductive health. This understanding is particularly important in rural communities with predominantly low health literacy and where rates of HIV and other STIs are higher than national average.

Method

Data collection was conducted in Central Province, Kenya, following the Institutional Review Board (IRB) approval on research involving human subjects. Seven focus-group discussions were organized (four male and three female groups) with a total of 60 participants (30 men and 30 women) and an age range of 25–57 years who were selected from community organizations including churches, women’s groups, and men’s groups. To recruit participants, one volunteer was asked to select 8 to 10 others to participate in the study. One male group was too large and was divided into two groups. None of the group participants had formal employment although one man owned a small pharmaceutical shop. Two of the oldest men had recently retired, one from teaching elementary school and the other from a clerical government job. All

women identified as non-alcohol consumers while all men identified as consumers but two of them did not consume second-generation alcohol. Participants were required to be sober to participate in the study.

In addition, 12 in-depth interviews were conducted among key informants (eight males and four females) who were selected based on a snowball method that was initiated from the focus group and from other interviews. Those interviewed self-identified professionally as follows: official from NACADA (1); community health professional (1); government administrators (2); sociologist and researcher (1); and a media professional/journalist (1). Other key informants that communities indicated as opinion leaders included: business owners/community leaders (2); religious leaders (2); and teachers (2). Although five males were either observed or self-identified as alcohol consumers, none of them indicated consuming it excessively or as consumers of second-generation alcohol.

The researcher, who is bi-lingual, moderated focus groups and conducted in-depth interviews while the research assistant took notes and operated the recording devices. All focus groups and some interviews were conducted in Kikuyu language, a local dialect spoken in Central Kenya. Member-checking was done as part of the data collection process and it consisted of the researcher restating, summarizing or paraphrasing the information received from a respondent, which ensured that what was heard or written down is, in fact, correct [18]. For instance, the researcher would ask, "You stated that... did you mean ..." to ensure proper meanings were captured. This was done continuously through the focus group discussions and it involved prompting for clarification where necessary.

Data translation was done simultaneously with transcription by two bi-lingual research assistants who were recruited from a local university. The researcher then read through the transcripts while listening to the recordings to ensure accuracy [19]. In order to keep the essence of the local language in the translation, any uncertainties in translation were discussed with the research assistants. In one instance a bi-lingual colleague, a Kikuyu native speaker, who was not involved in the research process, was also consulted.

All recorded data were analyzed through constructivist and interpretive techniques, an approach that Denzin [20] refers to as "thick description" because it gives rigor to qualitative analysis (p. 83). This approach assumes that methods which are open to refinement can illuminate how subjects construct reality with the aim of identifying the meaning people construct as they interact [21]. Analysis started with a line-by-line examination of all transcripts closely for commonly repeated phrases and statements. This analysis started with open coding, which involved identification of discrete concepts [22]. Color-coding method was then used to identify recurring themes from focus groups and in-depth interviews and results organized based on those themes while keeping in mind the research questions. The researcher and one research assistant coded information to ensure greater reliability and validity of data [23].

Results

Given the media attention on numerous alcohol-related deaths in Central Kenya, participants were asked to talk about the problem, specifically to describe the situation in their communities. Various themes emerged from the discussions that include participants' perceptions on: (1) the lethal nature of second-generation alcohol; (2) reproductive health problems associated with excessive alcohol consumption; (3) the impact it has on women's reproductive health and needs; and (4) the perceptions on the direct linkage to the risk of HIV infection in impacted communities.

Perceptions on second-generation alcohol

All participants in focus groups and in-depth interviews groups emphasized the severity of alcoholism in Central Kenya specifically the consumption of second-generation alcohol, a locally made beverage with exorbitant alcohol content. Focus group participants were aware of the lethal nature of second-generation alcohol. As one man explained:

> If you want to know how strong it is just put a coin in a cup and let it sit there for a minute or two. It immediately changes color and gets corroded. It is almost like it's melting away. You can imagine what it does to your organs. It melts them away.

In spite of this knowledge, participants indicated that people drink it because of its strength and affordability compared with regular beer. They talked about a variety of additives that makes the alcohol strong and addictive but emphasized the use of illicit drugs among alcohol consumers. Men stated that "drugs are everywhere these days" and "when people are drinking they can get them easily because the two [alcohol and drugs] go together." Women also discussed the increase in drug use among alcohol consumers. One woman whose elderly father is a substance abuser noted, "He is now 75 and we know he is smoking marijuana because people have seen him smoking it and he behaves differently, sometimes violently."

Women were also aware of the lethal nature of second-generation alcohol. Although they did not know much about different brands they indicated that they can tell by the distinct foul smells between first-and second-generation alcohol. Comments made in the women's groups included:

> "You can tell someone who drank it because of the very stinky smell."

> "If you go to a toilet that has been used by that person it smells very badly. Not like when used by someone who drink the regular beer and that is how you tell they are drinking it."

> "You can tell the difference because we see plastic bottles everywhere. We know the regular beer, so this is something new that came here recently."

In an in-depth interview, a participant from NACADA explained the difference between the first-and second-generation alcohol:

> First generation is the regular beers that are produced by credible companies and have been approved by the Kenya Bureau of Standards. The second-generation alcohol is a concoction of lab chemicals that are used so they can bypass the distilling process and that's what kills. If you do not know how to mix it properly, or you do not understand the chemicals, then you are likely to make something that is lethal. We have seen several of those cases in Central Province so we know it is a big problem. Note that this is different from Chang'aa [traditional brew], which is distilled, but others bypass that process.

The concoction of chemical substances and other additives makes the liquor extremely lethal and has led to several health problems including death. The rural sociologist also confirmed in the interview about the increase in drug use, which are also used as adulterants.

> What they call second-generation alcohol is a mixture of various chemicals including methanol and everything else you can think of to make it strong. I spoke to someone who brews it and he told me that they sometimes add even cocaine and anything else they come across to make it strong. That is why it is that addictive.

There is a general recognition that men, specifically young men in their reproductive age, are at a higher risk of health problems associated with excessive alcohol consumption compared with women. Women participants noted the early initiation in alcohol consumption as a key risk factor:

> Sometime you might see a 15-year-old who starts to drink because if he is not going to school and he sees his father, uncle and everyone around him drinking, he thinks it is the right thing to do. Some of them do not even have an ID card but they still drink.

Though the legal drinking age in Kenya is 18 years, male groups also agreed that rural youth start much earlier because of exposure, which has in turn led to serious health consequences.

Perceived impact on reproductive health

While discussing the health impact of excessive alcohol consumption, participants mentioned a variety of severe alcohol-related illnesses such as liver disease, kidney failure, extreme malnutrition, weight loss and blindness. They emphasized the impact it has on the reproductive health of not only consumers, but also their families and community at large. As brought up in all discussions, children are no longer being born in the communities because men have lost their reproductive ability or because they are never home with their wives. Groups

also pointed out that "the nursery schools [pre-schools] have been closed in some communities because there are no children."

Men discussed the impact alcoholism has on the reproductive system of heavy consumers of illicit liquor. In one group a participant emphasized:

> Every normal man, even a little boy, should wake up with his flag raised [erection], but the men who drink it cannot raise their flags. Even mothers know that is how to tell if the baby boy is normal. Sometimes they strike the little boy's manhood [penis] to check if it functions properly. But with the type of beer we are drinking, that is the first thing it takes away.

The impact it has on men's reproductive health was also stressed in the interviews. One interviewee narrated a story of a 35-year-old relative who had confided in him, noting that "he lost his manhood three years ago and wanted to know if he could be a man again if he stops drinking." Stressing the seriousness of the problem another interviewee stated, "You will see some very young men, some as young as 18 or in their 20s trying to use potency-enhancing drugs that are similar to Viagra, because they cannot function as men anymore." It was also noted that traditional healers have addressed the problem through development or herbal medication for men with potency problems. "You will see them advertised everywhere because they are aware of the problem."

Women not only were concerned about their conjugal rights and the need to have children but also found it difficult to plan families. As one participant indicated, "We do not need family planning [contraceptives] anymore because it is not necessary." Another woman stated, "If you want to get pregnant you have to always be ready in case you get that chance because it does not always happen." Others have opted for natural methods, which involves "counting your days so you know when you can get pregnant," though many women thought of this method as more difficult.

Risk of HIV/AIDS and other STIs

The reproductive health problems in the communities were attributed to risky sexual behavior that has put many people at risk of STIs including HIV. Participants highlighted the extramarital relations that have increased with alcoholism mostly among spouses of heavy drinkers, which they attributed to the reproductive health problems within their marital relationships.

Women's perspectives: Women were asked what they do when their sexual and reproductive needs are not met. The general response was that "we have to do what we have to do to help ourselves." One woman noted in agreement with others that "women talk and you can tell that they are going to other men. They go to those who do not drink and those who drink the regular beer because that does not affect them like the other type [second-generation]." Another woman in the same group added:

> And those men know where they are needed. They know the men who are

> not doing their job at home and sometimes they are their friends so they know when they are out drinking. When husbands are away those men go to their homes and nobody can suspect anything.

In all groups women discussed the men who engage in these extramarital relations noting that "some of them are the preachers and others who come to sympathize with the families because of their husbands' behavior. You see a preacher coming to offer prayers but he offers more than that." Also noted in one group:

> Some men are very tricky – he will leave his friend at the bar drinking or even buy him some more then leave him there drinking and go to his [friend's] wife. When they are finished he goes back to the bar to check on him and take him home.

In a different group women noted that when men are drunk "they do not pay much attention to what we do," which gives some women opportunity to engage in extramarital relations. One participant noted reassuringly that "the good thing is that when they are drunk they can sleep for a very long time, so if you want to go somewhere you can go and come back without them knowing."

As for the women whose spouses do not drink but engage in risky sexual practices, participants indicated low-risk perception when asked about their views. They made statements such as, "they are not doing it to marry those women", "they will eventually come home," and "I try not to think about it because he is supporting us and we are not hungry. I do not want to start a fight." Women agreed that males who engage in such behavior and their spouses are equally at risk of HIV infection although they are not directly affected by the consequences of alcoholism.

Men's perspectives: Men indicated the prevalence of extramarital relations and the risk of diseases but also acknowledged alcoholism as one of the contributors. As noted in one group, "we know people are doing that and we know some of our wives are doing it, but sometimes there is nothing much one can do about it." Linking it to economic hardships one participant stressed:

> You can suspect that she is doing it because sometimes there might be no food in the house and she leaves for the day and comes back with a packet of flour. Are you going to ask her where it came from or just shut up and let the children eat?

Men also indicated knowledge of those who supported women emotionally, sexually and financially and they mentioned community leaders including religious leaders and others with status and some financial stability. Some statements made in that regard included: "We have given them to the pastors; even our children belong to them" and "They might think we do not know but it is those people who come to check on the families."

Lack of Protection: On the risk of HIV infection, apathy and low self-efficacy was expressed in men and women's groups. As men apathetically indicated:

> “We’ll all die one day whether it is from AIDS or from drinking too much.”

> “We can’t think about that. If you get it [AIDS] you just wait for your day.”

> There also was a sense of denial among men. For instance:

> “That is why we are staying away. If I do not go to my wife I can’t get it, so she will end up dying alone.”

> “We can’t get it because if the flag can’t rise, then you do not do anything with her.”

However, it also was noted that some men put themselves at a higher risk for HIV infection when under alcohol influence as confirmed by the community health professional, who stressed that “we know that drinking affects judgment and when men drink sometimes they will end up in the wrong bed. Women are doing the same thing. My biggest concern is that they are not using protection.”

In spite of the risk-taking behavior participants indicated a lack of condom use for HIV prevention. In the women’s groups, it was noted:

> “It is hard to even think about it because you can’t ask your husband to use a condom. He will be suspicious and can beat you for that.”

> “Men don’t want to use them [condoms] and you can’t ask them to because that means you do not trust them.”

Men also indicated that condom use was not necessary because some of them were no longer sexually active. “Some of us do not need to use them because we are married and I think, like me, we are old enough to take care of ourselves if we slip out of home once in a while.” Another man followed it up:

> I am married too so I can’t bring that kind of talk at home, but as we were talking earlier, some men won’t use them because they do not do anything with the women, so they do not need protection.

The high risk of HIV infection was also discussed in the interviews stressing the lack of condom use or other forms of prevention among men and women in rural communities. This was associated with inadequate understanding of STDs, low risk perception and to condom-use stigma. As the health professional indicated in the interview, risk-taking behavior puts both sexual partners at risk regardless of the frequency of intercourse. This is particularly true because many of them are not aware of their HIV status.

Discussion

The study explored rural communities perspectives on reproductive health risks associated with excessive alcoholism including the risk of HIV infection. Reproductive health implies that people have a safe and satisfying sex life, the capability to reproduce, and the freedom to choose if, when and how often to

do so [24,25]. Results, however, show that in the context of alcoholism, sexual and reproductive health and rights of men and women in rural Kenya are affected.

Although there are numerous and severe alcohol-related health problems participants underscored reproductive health because of its impact not only on individual consumers but also on the family unit and the wider community. In a society where parenthood is highly valued and where a woman's worth is measured by her ability to bear children [16, 26], lack of reproduction capacity is a severe consequence attributed to alcoholism.

Reproductive health and rights have been advocated since the 1994 International Conference on Population and Development (ICPD) in Cairo [24] but there has been limited focus on men's health in rural Kenya, which creates the illusion that their sexual and reproductive health is unimportant. Results from the study indicate the critical need to address men's reproductive health, which has been gravely impacted by alcoholism, to incorporate men's overall health in alcohol prevention interventions and to establish male-focused health education programs that will communicate about the health risks associated with heavy alcohol consumption.

Communicating candidly about the long-term effects of alcoholism on the reproductive system is particularly important in rural communities where the value of children and large families as sources of social and economic support is high. This role of communication in reproductive health is emphasized in the 1994 ICPD plan of action [25] although the main focus has been on women and family planning. Male reproductive health has not received much attention except in regards to condom use for HIV/AIDS prevention. With the onset of alcoholism in Central Kenya, which is attributed with HIV/AIDS and a host of other reproductive health problems, it is important to revitalize interventions that focus on men's reproductive health in the context of alcohol consumption. Given that people act on their beliefs or perceptions rather than the real risks [27], reproductive health communication should aim to enhance risk perceptions and to impact values, beliefs, myths and misconceptions associated with alcohol consumption. Focusing on education would also impact values, beliefs, myths and misconceptions associated with alcohol expectancies and possibly avert risky behaviors.

The fact that rural women do not use family planning contraceptives including condoms due to their unmet need to conceive puts them at a high risk of unwanted pregnancies, HIV/AIDS, other reproductive tract infections. They are also more likely to spread these diseases within their communities. This contradicts the reproductive health ICPD emphasis on men and women's ability to have a safe and satisfying sex life [25]. The failure to practice safer sex may explain the high HIV infection among married women who account for 8% HIV prevalence, twice as high as that of men, which stands are 4.3%, and an estimated 5.6% among pregnant women [3]. Although women are less likely to drink excessively, it is important to focus on the role alcohol plays directly or indirectly in the high infection rates.

The increasingly use of illicit drugs among alcohol consumers or as additives in second-generation alcohol was reported in the study. This finding is in line with research that has shown a relationship between alcohol and other substance abuse [28]. Other drugs are used widely in Kenya including khat (miraa), plant twigs chewed to release stimulants that contain Cathinone and Cathine, chemicals that alter the user's mood. The drug also causes rapid heart rate and increases blood pressure, symptoms that are sometimes confused with increased sexual libido or stamina [29]. This may be a risk factor for STI particularly if protection is not used. Limited empirical research, however, exists that relate use of such drugs to HIV/AIDS or other reproductive health problems.

Results show a lack of protection although men and women are aware of the risks of HIV/AIDS, which is widespread in the rural communities. As participants statements indicated, this is mostly attributed to low risk perception, lack of access to condoms and stigma associated with their use, and the limited negotiation skills for safer sexual practices especially among women. Previous research has also addressed social-cultural factors such as unequal gender relations, gender roles, cultural beliefs, values and practices that lead to infection [16]. Existing HIV prevention programs have, however, failed to adequately focus on older and married women particularly in the promotion of condom use. The current study, however, shows that in the context of alcoholism rural reproductive-age women are a critical target group based on their active risky sexual behavior.

Limitations

The study is not without limitations. It is exploratory and qualitative in nature with a small sample and therefore findings cannot be generalized and only limited practical and clinical implications can be made from the results. Additionally, although it provides interesting findings, it is limited in scope having focused on three communities in one out of eight provinces. The focus was the Kikuyu ethnicity although alcoholism and HIV/AIDS affect all 42 Kenyan ethnicities indiscriminately. Furthermore, although a cultural language researcher moderated focus groups and in-depth interviews mostly in the local language to maintain the integrity and credibility of translated data [30] the lack of English/Kikuyu word equivalency particularly in the translation of technical health terms (e.g. reproductive health or sexuality-related words) was a key limitation. As qualitative health studies have pointed out this lack of conceptual equivalency could affect the trustworthy of findings [30]. The researcher's academic training in a health-related field, cultural background and comfort with the native language, prior experience in rural research as well as member checks during data collection all ensured that proper meanings are captured in data transcription.

Study implications

The study has some practical implications for sexual and reproductive health care. First, there are real and experienced reproductive health problems attributed to alcoholism in rural Central Kenya alongside other illnesses, which has been

exacerbated by the excessive consumption of second-generation alcohol. Although there is awareness of these problems communities, mostly men of various ages, continue to consume it excessively. It is important for practitioners to focus on alcohol education in order to enhance understanding and risk perceptions as well as impact values, beliefs, myths and misconceptions associated with alcohol expectancies and possibly avert risky behaviors.

Second, the alcoholism situation has aggravated the need for practitioners to focus on male reproductive health, which is often at the back banner in Kenyan health interventions. It is particularly important to focus on the comorbidity of alcoholism and reproductive health problems in men given the complex relationship between the two health problems. Incorporating a gender component is critical given that men and women are impacted differently.

Third, although the prevention interventions in Kenya exist at the national level (e.g. laws, policies, communication and rehabilitation programs), they are not rural-centric and have failed to impact behavior change. This implies a need for an alternative strategy that is more relevant to rural settings because they are unique in their operation and communication processes. Examining those processes carefully and incorporating them in the interventions would enhance intervention programs' success.

Finally, the current national interventions in Kenya have addressed alcoholism as a social problem although the impact of alcoholism on communities' health and well-being calls for a public health approach. This would require a stronger multi-agency collaboration given the magnitude and nature of alcoholism problem to ensure provision of the necessary preventive, care and treatment services that are missing in rural communities. It is important for practitioners to also recognize and support any community-based initiatives thus giving a voice to those impacted. Such recognition would ensure that interventions are culture-specific and relevant to impacted communities.

Conclusion

The study explored rural communities perspectives on health risks associated with excessive alcoholism in rural Central Kenya. Sexual and reproductive health problems were highlighted as the most severe consequence of chronic alcoholism because it affects not only consumers but also the wider community. The study also provides some insights on the complex relationship between alcoholism and HIV/AIDS where women in alcohol-discordant relationships engage in risky sexual behaviors as they seek sexual satisfaction and conception. The failure to embrace condom use within and outside of marital relationships enhances their risk of contracting HIV and other STIs. This indicates a need for an integrated alcohol prevention intervention that targets women and other non-alcohol consumers in the context of HIV/AIDS and vice versa.

With the failure of current interventions to motivate change, the study proposes a public health approach with a focus on alcohol education and understanding of

long-term impact of chronic alcoholism. This approach is particularly important in rural communities with low health literacy and where information access is limited. Further research to closely examine the association between HIV/AIDS, alcoholism and other forms of substance abuse would provide a better understanding of the higher HIV prevalence among women compared to men in Kenya. Such research would also inform interventions for HIV/AIDS and other reproductive health problems among men and women in the context of alcoholism.

References

[1] Cook RL, Clark D. Is there an association between alcohol consumption and sexually transmitted diseases? A systematic review. Sex Transm Dis 2005;32(3):156–64.

[2] Weiser SD, Leiter K, Heisler M, McFarland W, Percy-de Korte F. A population based study on alcohol and high-risk sexual behaviors in Botswana. PLoS Med 1998;23(2):190–5. e392.

[3] NACC, NASCOP. Kenya AIDS Epidemic update, 2011. Nairobi, Kenya. Retrieved from <http://www.unaids.org/en/dataanalysis/knowyourresponse/countryprogressreports/2012countries/ce_KE_Narrative_Report.pdf

[4] Ndetei DM, Ongecha FA, Malow RM, Onyancha J, Mutiso V, Kokonya DD, et al. Next priorities for intervention in Kenya: Results from a cohort study of drug use, HIV and HCV pattern in five urban areas. International Psychology Reporter 2006;10(1):16–9.

[5] Kiemo K, Michuki G. Alcohol use in Central Province of Kenya. A baseline survey on magnitude, causes and effects from the perspective of community members and individual users, NACADA Report, December 2010. Retrieved on March 28 from <http://www.nacada.go.ke/wp-content/uploads/2011/02/central-servey.pdf>.

[6] World Health Organization (WHO). Global status report on alcohol and health. (2011) Retrieved March 28, 2012 from <http://www.who.int/substance_abuse/publications/global_alcohol_report/msbgsruprofiles.pdf>.

[7] Dutta-Bergman MJ. Theory and practice in health communication campaigns: A critical interrogation. Health Commun 2005;18:103–22.

[8] Institute of Medicine. The Future of Public Health. Washington, DC: National Academy Press; 1988.

[9] Morris NC, Levine B, Goodridge G, Luo N, Ashley J. Three-country assessment of alcohol-HIV related policy and programmatic responses in Africa. Afr J Drug Alcohol Stud 2006;5(2):170–84.

[10] Naimi TS, Brewer RD, Mokdad A, Denny C, Serdula MK, Marks JS. Binge drinking among US adults. JAMA 2003;289(1):70–5.

[11] Wechsler H, Wuethrich B. Dying to Drink. Emmaus, PA: Rodale; 2002.

[12] Emanuele MA, Emanuele N. Alcohol and the male reproductive system. Alcohol Res Health 2001;25:282–7.

[13] Maisto SA, Carey MP, Carey KB, Gordon CM, Schum JL. Effects of alcohol and expectancies on HIV-related risk perception and behavioral skills in heterosexual women. Exp Clin Psychopharmacol 2004;12:288–97.

[14] Shakespeare W. (1564–1616). The tragedy of Macbeth. Macbeth Act II, Scene

III, The Harvard Classics, 1909–14. Retrieved from <http://www.bartleby.com/46/4/23.html>.

[15] Kovacs EJ, & Messingham KAN. Influence of alcohol and gender on immune response. National institute of alcohol abuse and alcoholism. National institutes of health. 2003 Retrieved from <http://pubs.niaaa.nih.gov/ publications/arh26-4/257-263.html>.

[16] Muturi N. Cultural considerations in HIV/AIDS communication and prevention in Kenya. J Health Commun 2005;10(1):77–98.

[17] Nzioka C. Perspectives of adolescent boys on the risks of unwanted pregnancy and sexually transmitted infections: Kenya. Reprod Health Matters 2001;9(17):108–17.

[18] Kuzel AJ, Like RC. Standards of trustworthiness for qualitative studies in primary care. In: Norton PG, Steward M, Tudiver F, Bass MJ, Dunn EV, editors. Primary Care Research. Newbury Park, CA: Sage Publications; 1991. p. 138–58.

[19] Easton KL, McComish JF, Greenberg R. Avoiding common pitfalls in qualitative data collection and transcription. Qual Health Res 2000;10(5):703–7.

[20] Denzin NK. Interpretive Interactionism. Beverly Hills, CA: Sage; 2001.

[21] Chesebro JW, Borisoff DJ. What makes qualitative research qualitative? Qual Res Rep Commun 2007;8(1):3–14.

[22] Dutta MJ, Basu A. Health among men in rural Bengal: Exploring meanings through a culture-centered approach. Qual Health Res 2007;17(1):38–48.

[23] Guba EG, Lincoln YS. Competing paradigms in qualitative research. In: Denzin NK, Lincoln YS, editors. Handbook of Qualitative Research. Thousand Oaks, CA: Sage; 1994. p. 105–17.

[24] Cook RJ, Dickens BM, Fathalla MF. Reproductive health and human rights: Integrating medicine, ethics, and law. Oxford: Clarendon Press; 2003.

[25] United Nations Population Fund. Reproductive Rights and Sexual and Reproductive Health Framework. Retrieved from <http://www.unfpa.org/ webdav/site/global/shared/documents/ UNFPA_SRH_Framework_FinalVersion.pdf.

[26] Muturi N. Women’s status in reproductive health decision-making: A communications approach. J Dev Commun 2003;14(1):32–50.

[27] Sjoberg L. Risk perception of alcohol consumption. Alcohol Clin Exp Res 1998;22(7).

[28] Oei TPS, Morawska A. A cognitive model of binge drinking: The influence of alcohol expectancies and drinking refusal self-efficacy. Addict Behav 2004;29:159–79

[29] NACADA. Miraa abuse. Retrieved on from NACADA Website <http://www.nacada.go.ke/2010/04/miraa-abuse/>.

[30] Squires A. Language barriers and qualitative nursing research: Methodological considerations. Int Nurs Rev 2008;55(3):265–73