

A Reasoned Action Model of Male Client Involvement in Commercial Sex Work in Kibera, A Large Informal Settlement in Nairobi, Kenya

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Male clients of female sex workers (FSWs) are epidemiologically important because they can form bridge groups linking high- and low-risk subpopulations. However, because male clients are hard to locate, they are not frequently studied. Recent research emphasizes searching for high-risk behavior groups in locales where new sexual partnerships form and the threat of HIV transmission is high. Sub-Saharan Africa public drinking venues satisfy these criteria. Accordingly, this study developed and implemented a rapid assessment methodology to survey men in bars throughout the large informal settlement of Kibera, Nairobi, Kenya, with the goal of delineating cultural and economic rationales associated with male participation in commercial sex. The study sample consisted of 220 male patrons of 110 bars located throughout Kibera's 11 communities. Logistic regression analysis incorporating a modified Reasoned Action Model indicated that a social norm condoning commercial sex among male peers and the cultural belief that men should practice sex before marriage support commercial sex involvement. Conversely, lacking money to drink and/or pay for sexual services were barriers to male commercial sex involvement. Results are interpreted in light of possible harm reduction programs focusing on FSWs' male clients.

Key words: commercial sex work, rapid assessment methodology, Reasoned Action Model, Kenya

Introduction

Male clients of female sex workers (FSWs) are important in HIV/AIDS epidemiology because they can act as “bridge populations”¹ linking groups with a high number of sexual partners and those with relatively few (Aral 2002). However, in comparison to FSWs, male clients are rarely the focus of HIV intervention programs (though

for notable exceptions see Barrington et al. 2009; Gomes do Espirito Santos and Etheredge 2002; Lahuerta et al. 2013; Lowndes et al. 2007; Voeten et al. 2002). In large part, this reflects the observation that male clients are “hard to count” (Carael et al. 2006) because they are difficult to locate. That is, male clients do not form peer groups, reside in specified areas where commercial sex is legalized, or advertise in print or electronic media. Recognizing this difficulty, recent HIV/AIDS research emphasizes identifying and studying locales where new sexual partnerships form and the risk of HIV transmission is high (Lewis et al. 2005; Morojele et al. 2006; Sanday, Siziya, and Fylkesnes 2008; Weir et al. 2002; Weir et al. 2004). In sub-Saharan Africa, research consistently finds that public drinking venues are associated with men seeking commercial sex (Li, Li and Stanton 2010; Woolf-King and Maisto 2011) and are also sites for HIV transmission resulting from alcohol-related high-risk behavior (for a review of the linkage between alcohol consumption and high risk sex in sub-Saharan Africa see Kalichman et al. 2007).

Building on this research, this study's goals are two-fold: (1) to gather data on men who frequent bars in Kibera, a large informal settlement in Nairobi, Kenya, and (2) analyze the resulting sample using a Reasoned Action Model to identify cultural, economic, and psychosocial factors associated with FSWs' male clients. The first goal stems from anthropology's important role in developing rapid assessment methodologies

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combining community key informants, social mapping, and brief surveys (Harris, Jerome, and Fawcett 1997; Scrimshaw and Hurtado 1988). The second goal recognizes studies showing that group norms and economic factors underlie male involvement with FSWs (Barrington et al. 2009; Goldenberg et al. 2011).

To explore these last factors, we adopted the Reasoned Action Model (Ajzen, Albarracin, and Hornik 2007). This posits that the most important determinant of human behavior is intention, which in turn is influenced by three “psychological antecedents” (Ajzen and Albarracin 2007): (1) behavioral beliefs/attitudes—represented by individual beliefs and attitudes toward a specified behavior, (2) normative beliefs—constituting group social norms, and (3) perceived control beliefs—operating as the belief in one’s ability to perform specific behaviors. Figure 1 presents a schematic view of the Reasoned Action Model, which has also been called the Theory of Planned Behavior (Ajzen 2002) and the Integrative Model of Behavior Prediction (Fishbein 2008).

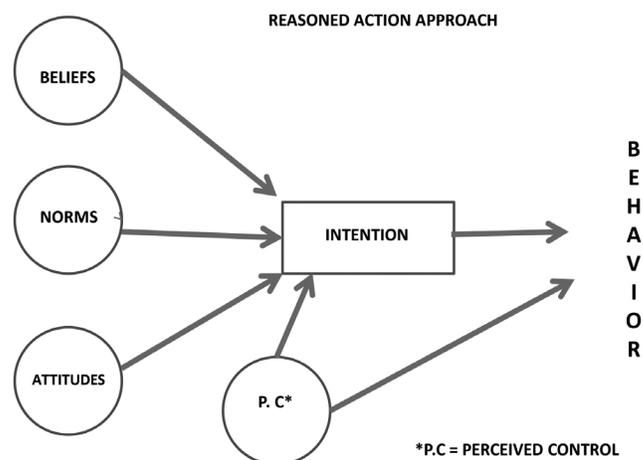
The Reasoned Action model has been used to understand, promote, and change health behaviors ranging from condom use among East African pastoralists (Roth, Ngugi, and Jansson 2011) to HIV sero-sorting among urban North American men who have sex with men (Hopkins and Reitsemeijer 2007). While the model is criticized for ignoring the role of emotion in human behavior (Kippax and Crawford 1993) and emphasizing individual over group or cooperative behavior (Flowers and Duncan 2002), we nevertheless consider it pertinent and useful for our specific research for the following reasons. First, the model’s emphasis on intention addresses the question of whether or not Kibera men go to bars to engage in commercial sex. Second, inclusion of individual beliefs/attitudes and group norms examines behavior at two levels. For example, the belief that men should practice sex with multiple partners to maintain their overall health is widespread in sub-Saharan Africa (Caldwell, Orubuloye, and Caldwell 1999; Roth et al. 2001) and operates at a cultural and an individual level. In addition, the model’s concern with perceived control beliefs parallels the social sciences’ concept of agency, providing insights into internally conceived, or emic, perspectives on opportunities and barriers to specific health behaviors. Finally, assessing the relative strengths of male norms, beliefs, and attitudes may help construct harm reduction programs for FSWs’ clients, as previously done for FSWs (Rekart 2006). Rather than promoting a strict zero tolerance approach, which suggests that male commercial sex involvement is the result of sexual deviance (e.g., an outcome of sexual addiction (Gurd and O’Brien 2013), such programs could promote safe commercial sex practices ranging from condom use to reduced interpersonal violence.

Materials and Methods

The Study Locale

The present location of Kibera was uninhabited until the 1920s, when it was awarded to Sudanese Nubian soldiers who

Figure 1. Reasoned Action Model



fought in the First World War (Bendiksen 2007). At that time, the British Colonial government did not give property titles to Kibera residents; consequently, the area was omitted from post-Independence urban planning and received few public services. Today, Kibera lacks paved roads, public sewage disposal, or a potable water system, and its houses consist of mud and/or scrap lumber, with roofs of metal sheets. These conditions, along with crowding and low household income, result in high levels of malnutrition and a heavy disease load for Kibera and other East African informal settlements, or slums (David et al. 2010). Kibera is now the largest informal settlement in East Africa, with an estimated population of 800,000 people (Odek et al. 2009) living within one square mile. Many inhabitants are new arrivals to Nairobi from Kenyan rural areas. For recent city migrants, Kibera’s low housing costs, and its central location within Nairobi, make it a viable entry point to Nairobi. At the same time, many inhabitants are multi-generation Kibera residents, born in Kibera and now raising their children there.

Research suggests that Nairobi informal settlement residents are more affected by HIV/AIDS than any other sub-Saharan African population (Kyobutungi et al. 2008). The very high HIV/AIDS prevalence rate differential between formal and informal settlements seen elsewhere (Rehle et al. 2007) is also reflected in Kibera where it is estimated at 12 percent, more than twice the current national rate of 5.1 percent (Unge et al. 2009). In Nairobi slums, high levels of poverty, alcohol, and substance use combine with early age at sexual initiation to exacerbate HIV transmission and pose serious challenges for HIV/AIDS treatment (Zulu, Dodoo, and Chika-Ezee 2004).

Rapid Assessment Methodology

Kibera is currently divided into 11 villages: Lindi, Soweto (East and West), Makina, Kianda, Mashimoni, Gatuikira,

Kisumu Ndogo, Laini Saba, Siranga, and Raila. There are no population lists or censuses for Kibera; therefore, we attempted to make our sample as representative as possible by recruiting from each community. We first worked with Kibera residents selected upon the basis of their past experience working with the Kenyan co-author. These men and women acted as community key informants to identify the 10 most popular bars in each community. We asked them to focus solely on local popularity, rather than other aspects that might influence clientele or reflect economic factors. For example, we asked them not to consider whether locales were known for commercial sex work or if bars served government-taxed liquor and/or beer versus home-brewed sorghum beer (called busaa) or gin, known locally as “changaa” or “kill me quick” in the Nubian language (de Smedt 2009). Changa consumed in these bars is often of unpredictable purity and has been linked to deaths and blindness (Masime et al. 2013).

We then accompanied community key informants throughout every village, constructing social maps (Schensul et al. 1999) showing the location of these popular bars. We also investigated different ways to sample male bar patrons, continually stressing interviewer and study participants’ safety. Past studies demonstrated high levels of personal and property violence for Nairobi, with a United Nations HABITAT and United Nations Development Programme (2002) study of 10,500 participants showing that 37 percent of residents were robbed in the past year and 18 percent were physically assaulted. While subsequent finer-grained analyses demonstrate social variation within Nairobi urban informal settlements, these areas still reported the highest levels of robbery and assault (Parks 2013). Our concern was that both interviewers and study participants might be robbed and/or assaulted because of the study honoraria paid to each participant (500 Kenyan shillings [\$6]²). In addition, there was the need for a private environment in which participants could discuss sensitive matters related to their involvement in commercial sex.

To meet these challenges, we first had participants receive a color-coded card with designated dates from bar owners/managers. Recipients were asked to bring these cards, within a specified time limit, to a local health clinic where the project had a private room. Two problems with this plan immediately emerged. First, bar owners/managers wanted to distribute the cards. Since the cards could be redeemed for the study honorarium, we worried they would sell or give them to acquaintances or relatives not actually in the bars. Therefore, we distributed the cards directly to male bar patrons, with instructions to meet interviewers at the health clinic. However, in our pilot study, we found that less than half the men given cards appeared at the clinic. Subsequent interviews revealed this low return rate was because the clinic featured maternal-child service delivery, and the great majority of patients were women with their children. While an appropriate setting for our earlier research focusing upon Kibera FSWs (Ngugi et al. 2012a, 2012b), this site was inappropriate for the present male-oriented study.

Discussions of these setbacks with community key informants resulted in a revised plan in which the study’s two male Kenyan interviewers, who were University of Nairobi students trained by the authors before entering the field, entered a bar where each would select the first patron they met as a potential participant. If the patrons agreed to participate, they left the bar with the interviewers and went to a nearby interview site pre-selected by community key informants, usually private rooms in local houses. There, participants signed an informed consent form, completed a short questionnaire, and were given the honorarium. These procedures had received prior approval by ethics boards at the University of Nairobi, University of Washington, and University of Victoria. Interviewers would not return to that bar, going instead to the next bar on the community map. The total sample recruited in this manner during July-December, 2010 was 220 participants, representing two men from each of 10 bars in the 11 Kibera communities (i.e., 2x10x11=220).

Survey Questionnaire and Analysis

The study questionnaire contained sections on sociodemographic factors, sexual behavior, sexually transmitted infections and testing histories, and drug and alcohol use. One section contained statements about attitudes and behavior pertaining to commercial sex in Kibera bars, all with corresponding four point Likert-scale responses (1= Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Agree). Responses to these statements formed the basis of this study. The majority of these questions related to the Reasoned Action Model and included statements of: (1) beliefs/attitudes (“All women in bars are commercial sex workers” and “If I buy a woman in a bar alcohol, then she is agreeing to have sex with me,”) (2) norms (“My friends think it is all right to have sex with sex workers they meet in bars,”) (3) perceived control variables (“When I go to a bar, I always have enough money to afford a sex worker,”) and (4) intention (“When I go to a bar, I intend to have sex with a sex worker.”) These variables were transformed into dichotomous categorical “yes” (3=Agree, 4=Strongly Agree) and “no” categories (1= Strongly Disagree, 2=Disagree) for logistic regression analysis (Allison 2012) using the SAS Version 9.2 LOGISTIC sub-routine. The dependent variable for this multivariate model consisted of yes/no responses to the question, “I have had sex with sex workers I met in a bar.”

Results

Sample Composition

Table 1 presents descriptive statistics for the sample. Participants’ ages ranged from 19 to 58 years, with a mean age of 35.2 years. Most participants reported they were currently married, but less than 10 percent had post-secondary education. Average weekly income reported was just less than 3500 Kenyan shillings per week (\$42). Participants had on

Table 1. Sample Characteristics

Variable	N	Mean	Standard Deviation	Range
Age	219	35.2	7.9	19-58
Years in Kibera	219	14.3	9.8	0-53
Income (Kenyan Shillings per Week)	215	3,426	2,945	300-25,000
Children	220	2.6	1.9	0-8
Days/Week in Bar	219	4.0	2.9	0-7
Marital Status	220	%		
Single/Never Married	32	15		
Divorced/Separated	13	6		
Married	173	78		
Widowed	2	1		
Education (Last Grade/Form)	218	%		
None	15	7		
Primary	92	42		
Post-Primary/Vocational	89	1		
Secondary/A Level	19	41		
College Middle Level	3	9		

average over two children and had lived in Kibera for over 14 years. This last figure, combined with an average bar visitation of four days per week, suggests that the sample is composed of regular bar clients who have resided in Kibera for a considerable length of time.

As determined by positive responses to the statement “I have had sex with sex workers I met in a bar,” almost half the respondents (107/220 or 49 percent) reported ever engaging in commercial sex with Kibera bar-based FSWs. We henceforth refer to this group as male clients; as distinct from bar patrons, or men who reported never having commercial sex with Kibera bar-based FSWs. Table 2 presents the cultural, economic, and psychosocial differences between these two groups with respect to Reasoned Action Model related questions. Unadjusted Odds Ratios denote the likelihood of membership in the *male client* sample. Statistically significant ($p < 0.05$) responses differentiating the two groups include: (1) the norm stating that friends approve of having sex with FSWs met in Kibera bar, (2) the perceived control variable stating that they could afford commercial sex when they entered Kibera bars, and (3) two attitude/beliefs variables: (i) that men should practice sex before marriage and (ii) if a woman drinks with a bar patron, she is agreeing to have sex with him.

Intention, expressed as responses to the statement, “When I go to a bar I intend to have sex with a sex worker” was non-significant with both male groups, featuring low

positive responses. This is contrary to the Reasoned Action Model’s emphasis on intention as the most important behavioral precursor. In the present example, only 28 men in total answered “yes” to the above statement (bar patrons=7, male clients=21), suggesting that intention is linked strongly to economics in Kibera, where men need sufficient money to drink and pay for commercial sex. For this sample, intention to have commercial sex is very strongly associated with the perceived control statement, “When I go to a bar, I always have enough money to afford a female sex worker.” Respondents answering the last statement positively were almost 16 times more likely (Unadjusted Odds Ratio=15.8, 95% Confidence Interval=5.9–42.0) to intend to have commercial sex with bar-based Kibera FSWs than men who said they lacked the money to do so.

All independent variables were next entered into a multivariate logistic regression model with the likelihood of male client group membership as the categorical dependent variable. Table 3 presents the results of the resulting stepwise analysis, with non-significant variables sequentially removed, leaving the most parsimonious model. Results indicate that the peer group norm, “My friends think it is all right to have sex with sex workers they meet in bars,” remains the most highly significant variable ($p < 0.001$). Men expressing this norm were three times more likely to be male clients. In addition, the belief/attitude that “Men should practice sex

Table 2. Bivariate Analysis of Reasoned Action Model Variables by Group

Variable	Bar Patrons (n=113)		Male Clients (n=107)		Odds Ratios (95% CI)	Prob.
Beliefs/Attitudes "A man must have frequent sex with different women, or he will become physically ill."	No	90%	No	89%	1.17 (0.40-2.78)	0.720
	Yes	10%	Yes	11%		
Beliefs/Attitudes "All women in bars are commercial sex workers."	No	58%	No	48%	1.54 (0.91-2.69)	0.111
	Yes	42%	Yes	52%		
Beliefs/Attitudes "Men should practice sex before marriage."	No	44%	No	27%	2.14 (1.21-3.76)	0.008
	Yes	55%	Yes	73%		
Beliefs/Attitudes "If I buy a woman in a bar alcohol, then she is agreeing to have sex with me."	No	81%	No	65%	2.19 (1.18-4.04)	0.012
	Yes	19%	Yes	35%		
Norms "My friends think it is all right to have sex with sex workers they meet in bars."	No	69%	No	41%	3.19 (1.83-5.55)	<0.0001
	Yes	31%	Yes	59%		
Perceived Control "When I go to a bar, I always have enough money to afford a FSW."	No	93%	No	80%	3.70 (1.50-9.11)	0.003
	Yes	7%	Yes	20%		
Intention "When I go to a bar, I intend to have sex with a sex worker."	No	92%	No	87%	1.73 (0.72-4.21)	0.216
	Yes	8%	Yes	13%		

before marriage," remained statistically significant, as did the perceived control belief stating that, "When I go to a bar, I always have enough money to afford a FSW." The belief that, "If I buy a woman in a bar alcohol, then she is agreeing to have sex with me," while statistically significant in the bivariate analysis was no longer significant ($p=0.38$) in the multivariate analysis

Summary and Discussion

Male clients of FSWs are epidemiologically important in the sub-Saharan African HIV/AIDS pandemic but remain infrequently studied. In large part, this is because, as Carael et al. (2006) note, male clients are "hard to count." Recognizing recent research highlighting venues where HIV transmission is high and new sexual partnerships are established, this study developed and implemented a rapid assessment methodology to sample men in Kibera bars. This methodology resulted in a total sample of 220 men, collected without

compromising respondents' or interviewers' safety and/or confidentiality. Analysis of a short questionnaire completed by the men sampled in this fashion indicated that just under half of respondents at least once had commercial sex with FSWs they met in a Kibera bar. This confirms that Kibera bars are indeed places where new sexual partnerships are formed but also revealed that many male bar patrons do not have commercial sex with FSWs working there.

To identify factors differentiating Kibera male clients from bar patrons, we adopted the Reasoned Action Model, incorporating cultural norms, economic factors, psychosocial attitudes/beliefs, and perceived control beliefs pertaining to commercial sex. Logistic regression modeling indicated that perceived controls, norms, and attitudes/beliefs, but not intention, were significant determinants of ever having commercial sex with FSWs met in Kibera bars. Our findings differ from the Reasoned Approach Model's prediction that intention is the most important variable in understanding specific behaviors. In this study, intention appears strongly

Table 3. Stepwise Logistic Regression Result with Dependent Variable as “Yes” Response to Statement, “I Have Had Sex with Sex Workers I Met in a Bar”

A) Summary of Stepwise Selection

Step	Effect Removed	DF	Wald Chi-Square	Probability
1	“A man must have frequent sex with different women, or he will become physically ill.”	1	0.0021	0.9631
2	“All women in bars are commercial sex workers.”	1	0.3027	0.5822
3	“When I go to a bar, I intend to have sex with a sex worker.”	1	0.8589	0.3891
4	“If I buy a woman in a bar alcohol, then she is agreeing to have sex with me.”	1	0.7645	0.3819

B) Final Model

Variable	DF	Estimate (Standard Error)	Wald Chi-Square	Prob.	Adjusted Odds Ratio (95% CI)
Intercept	1	0.3045 (0.2456)	1.5376	0.2150	
“Men should practice sex before marriage.”	1	0.3569 (0.1254)	5.4873	0.0192	2.042 (1.124-3.710)
“My friends think it is all right to have sex with sex workers they meet in bars.”	1	0.5575 (0.1458)	14.6199	0.0001	3.049 (1.722-5.400)
“When I go to a bar, I always have enough money to afford a FSW.”	1	0.5573 (0.2392)	5.4280	0.0198	3.048 (1.194-7.784)

linked to economics, represented by the statement, “When I go to a bar, I always have enough money to afford a female sex worker.” These results are not surprising given the economically disadvantaged male clientele of Kibera bars. These results also highlight the need to study sub-Saharan African bars with more affluent male clientele to determine if the attitudes/beliefs and norms found in this study change with different economic conditions.

Our study has limitations. Although we sampled from a large number of popular bars throughout Kibera, we cannot claim that the resulting sample is representative of the Kibera male bar population. In addition, our results analyze self-reported data on behaviors which may be subject to social desirability bias (Agustín 2004), and all data gathered focused on Kibera FSWs working in bars rather than including those working from their homes or other locations. Finally, because of safety concerns for study participants and interviewers, all

interviews were conducted in the early evening; interviews later at night may have shown differing patterns.

Given the above caveats, the major finding of this study is that although economics limited male involvement in commercial sex transactions, a suite of norms, attitudes, and beliefs condoned and supported commercial sex with bar-based FSWs in Kibera. A significant determinant of these was the peer norm stating that, “My friends think it is all right to have sex with FSWs they meet in bars.” In the multivariate model, men agreeing with this statement were over three times more likely to be male clients. This result supports previous research showing the power of male peer norms to justify commercial sex involvement both within (Kaufman et al. 2008; Wamoyi et al. 2011) and outside sub-Saharan Africa (Couture 2010; Decker et al. 2010; Lahuerta et al. 2013).

In the present sample, these norms are supported by a constellation of beliefs and attitudes, ranging from the general,

for example, “Men should practice sex before marriage” to the specific, “My friends think it is all right to have sex with FSW they meet in bars.” Together, the norms, attitudes, and beliefs identified by the Rational Action Model show the need for interventions to change male cultural perspectives concerning transactional sex, as suggested by Dunkle and Jewkes (2007). This study’s assessment of the strength of male beliefs, attitudes, and norms suggest that abolitionist attempts to ban commercial sex work in Kibera would encounter stiff resistance in the form of sub-culturally entrenched behaviors. Instead of such an approach, our findings argue for a harm reduction approach featuring the introduction of safe sex norms emphasizing condom use with Kibera FSWs combined with condom placement in Kibera bars and messages promoting moderate alcohol consumption. These findings echo those from a recently completed nation-wide Kenyan pilot study linking alcohol counseling to voluntary HIV testing and counseling (MacKenzie et al. 2009). Findings from the present study suggest that safe sex norms for both FSWs and male clients could be profitably added to this program, in recognition of the historic and contemporary strong linkages between alcohol and commercial sex reported for sub-Saharan African public drinking venues.

Notes

¹We recognize that the term bridge population may connote or perpetuate stigma; however, as of now, there is no other epidemiological language that adequately captures the empirical link between these two populations.

²The figure of 500 KSh (\$5.80) for an interview corresponds with the 2013 average Kenyan laborer’s daily wage of 475 KSh (\$5.50) and was approved by the ethics board at the University of Nairobi.

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