Published in final edited form as:
Soc Sci Med. 2010 November ; 71(9): 1601–1609. doi:10.1016/j.socscimed.2010.07.039.

Social venues that protect against and promote HIV risk for young men in Dar es Salaam, Tanzania

Thespina Jeanne Yamanis, **Suzanne Maman**, **Jessie K. Mbwambo**, **JoAnne Earp**, and **Lusajo Kajula**

Abstract

Developing effective place-based health interventions requires understanding of the dynamic between place and health. The therapeutic landscape framework explains how place-based social processes and physical geography interact and influence health behavior. This study applied this framework to examine how venues, or social gathering places, influenced HIV risk behavior among young, urban men in Tanzania. Eighty-three public venues where men ages 15–19 met new sexual partners were identified by community informants in one city ward. The majority (86%) of the venues were called 'camps', social gathering places that had formal leaders and members. Observations were conducted at 23 camps and in-depth interviews were conducted with 36 camp members and 10 camp leaders in 15 purposively selected camps. Geographic and social features of camps were examined to understand their contributions to men's behaviors. Camps were characterized by a geographic space claimed by members, a unique name and a democratic system of leadership and governance. Members were mostly men and socialized daily at their camp. They reported strong social bonds and engaging in health-promoting activities such as playing sports and generating income. Members also engaged in HIV risk behaviors, such as meeting new sexual partners and having sex in or around the camp at night. Some members promoted concurrent sexual partnerships with their friends and resisted camp leaders' efforts to change their sexual risk behavior.

We conclude that camps are strategic venues for HIV prevention programs for young Tanzanian men. They served as both protective and risk landscapes, illustrating three domains of the therapeutic landscape framework: the built environment; identities of landscape occupants; and sites for collective efficacy. The framework and data suggest HIV intervention components that might augment the protective features of the camps, while changing environmental features to reduce risk.

Introduction

Public health has increasingly recognized the role of place in health promotion (World Health Organization, 1986). Health behavior interventions carried out in everyday places such as work venues and schools may result in increased reach and effectiveness when compared to interventions in specialized healthcare settings (Poland, Greene, & Rootman, 2001). For example, HIV prevention programs conducted in venues where people engage in sexual risk behaviors, like bars, may reach populations most at risk for HIV (Weir, Pailman, Mahlalela, Coetzee, Meidany & Boerma, 2003). Venue-based interventions may also improve access to hard-to-reach populations, such as young people who are not in school (Ellen, 2007). In a country like Tanzania, where young people aged 15–24 represent 60% of new HIV infections and 38% of young people aged 15–24 are neither employed nor in school, venue-based HIV prevention is a promising strategy (Mboup, 2004; National AIDS Control Programme, 2005). However, in Tanzania and elsewhere, identifying the most appropriate places in which to intervene remains a significant challenge.

Determining appropriate places for intervention requires, as a minimum, attention to the following two factors: 1) theoretical understanding of the role of place in influencing health

behavior; and 2) empirical consideration of how context facilitates or hinders the realization of this influence (Cummins, Curtis, Diez-Roux, & Macintyre, 2007; Cutchin, 2007; Dooris, 2005). Standard theories include place-oriented determinants of health behavior, such as social cognitive theory's environment construct (physical and social factors external to an individual), but do not specify the mechanisms by which place influences health (Lewis, DeVellis, & Sleath, 2002). The therapeutic landscape framework has been used to illuminate such mechanisms (Gesler, 1992). According to the framework, a landscape is a place characterized not only by its built (man-made) and natural environment, but also by how people interact with each other and the place. People unconsciously behave according to the social norms associated with the places where they congregate and endow places with meaning through the symbols they attach to those places (Gesler, 1992). Social class divisions may also manifest through landscapes, demonstrating landscapes' structural power (Cattell, Dines, Gesler, & Curtis, 2008).

More recently, the healing qualities of everyday landscapes, such as homes and beaches, have been recognized (Williams, 2007). Everyday landscapes may promote health by conferring a sense of belonging and identity to their occupants, with subsequent health benefits (Dupuis, 1998; Gesler, 1992). Individuals may also experience an increased sense of security when they are surrounded by people with similar identities (Popay, Thomas, Williams, Bennett, Gatrell, & Bostock, 2003). People who socialize in the same landscape may cultivate social cohesion (Cattell et al., 2008). Social cohesion positively influences health by fostering the mutual exchange of resources and information (Coleman, 1990) and promoting collective efficacy, the extent to which people believe in their ability to act cooperatively to solve their problems (Sampson, Morenoff, & Earls, 1999). A landscape in which people harness their collective efficacy to achieve healthy outcomes has been identified as a type of therapeutic landscape (Cattell et al., 2008)

Research has called attention to the fact that landscapes may not be consistently health-promoting (Collins & Kearns, 2007; Whitelaw, Baxendale, Bryce, Machardy, Young, & Witney, 2001). Landscapes may lead to poor health through physical features such as inadequate housing and pollution, or social features such as neighborhood mistrust and marginalized social groups (Curtis, 1998). Through negative interactions with situations in their environment or by lacking access to external resources, individuals may adopt risk behaviors (Conradson, 2005; Ross & Ferreira-Pinto, 2000; Zinberg, 1984). Therefore, individuals' relations and experiences with a landscape, whether positive, negative or neutral, influence their perceptions of a landscape as therapeutic, risky or ambivalent. Qualities of landscapes are not necessarily intrinsic, but may be understood through people's experiences in them (Conradson, 2005; Dunkley, 2009). Studying these experiences may illuminate the role of landscapes in facilitating positive or negative health outcomes (Cummins et al., 2007; Wakefield & McMullan, 2005).

This study aimed to describe how young men's experiences in the landscapes they inhabit affected their behavior relating to HIV risk. Our study site was Dar es Salaam, the commercial capital of Tanzania, which has the second-highest country-wide prevalence of HIV at 9%, and where HIV is largely transmitted through heterosexual contact (Tanzania Commission for AIDS, Zanzibar AIDS Commission, National Bureau of Statistics, Office of the Chief Government Statistician, & Macro International Inc., 2008). We targeted heterosexual men aged 15 to 19 because social norms in Tanzania encourage young men to have multiple sexual partners and adolescence is a time when men's social norms may be more malleable (Dilger, 2003; Mziray, 1998). Although our data were not captured *a priori* with the therapeutic landscape framework in mind, we were drawn to this framework because of its attention to the multiple features of landscapes (built, social, symbolic) that could affect HIV risk behavior.

Prior research provided guidance for choosing an appropriate landscape for young men in Dar es Salaam. A recent study from Tanzania showed that neighborhoods contributed independent variation to the distribution of HIV, over and above the aggregation of individual risk behaviors (Msisha, Kapiga, Earls, & Subramanian, 2008). High risk neighborhoods in urban settings are characterized by social venues where there is a high prevalence of HIV risk behavior, such as frequent formation of new sexual partnerships and drug and alcohol use (Weir et al., 2003). Evidence from rural Tanzania indicated that youths engaged in sexual activity at social venues such as bars, local beer shops, or guest houses (Mziray, 1998). To expand upon this literature, we aimed to select a high risk urban neighborhood for our study site and, within the neighborhood, social venues for young men as our landscape of interest.

Methods

Approvals to conduct this study came from the Tanzanian local government, the Tanzanian National Institute of Medical Research, and the University of North Carolina at Chapel Hill Institutional Review Board. All interviews were conducted between May 2007 and January 2008. We used the PLACE (Priorities for Local AIDS Control Efforts) methodology, a rapid assessment designed to locate venues where people meet new sexual partners (Weir et al., 2003). We first gathered publicly available data on high risk neighborhoods in Dar es Salaam. After reviewing these data, we chose Tandale ward, equivalent to a U.S. census tract with a population of 44,000 in 2002 (National Bureau of Statistics, Tanzania, 2002), because of reported high levels of HIV risk behaviors occurring there, including injecting drug use and commercial sex (McCurdy, Ross, Kilonzo, Leshabari, & Williams, 2006), and its paucity of health services (Dar es Salaam City Council, 2004). We then interviewed 254 community informants age 15 and older about the names and locations of venues in Tandale where men ages 15 to 19 met new sexual partners. The informants included community leaders, individuals socializing at the venues, sex workers, injecting drug users, and young people. All of the informants gave verbal consent and were interviewed in Kiswahili. The majority of the 83 venues identified were called ‘camps’ (n= 71; 86%); other venues included bars, bus stops and the water well. ‘Camps’ were described as informal sites for socialization that had formal membership and leadership, including at least a chairperson and treasurer, and were frequented by men between the ages of 15–19.

We purposively selected twenty-three camps that varied in terms of numbers of members for semi-structured observations. Interviewers visited each camp two times during the busiest hours of afternoon and evening. They counted the number of men and women at the camp, described their behaviors, and drew a map or picture of the camp.

In-depth interviews were conducted with four male camp members at each of nine camps. We purposively selected three large, four medium, and two small camps from among those observed. Camp size was based on the average number of people observed socializing at the camp. Large camps were defined as 20 individuals or more, medium camps had between 11 and 19 people and small camps had up to 10 people. After arriving at the camps, interviewers approached males who appeared to be adolescents, described the study, and determined eligibility by asking for their age (eligible respondents were between ages of 15 and19 years). Out of 94 men who were eligible, 36 agreed to participate and completed the interview. Those who refused primarily did so because they were reluctant to be audio-recorded (33%) or didn’t have time (19%). Each participant was asked about his personal background, reasons for coming to the camp, camp activities, and social relationships. He was asked to provide a nickname or initials for each sexual partner he had within the past six months and dates of first and last sex with each partner mentioned. For up to three of the respondent’s most recent partners, detailed questions were asked such as where he met the partner and the partner’s profession.

Key informant interviews were conducted with one camp leader, defined as having a leadership role at the camp, at each of ten camps that were purposively selected to represent a range of sizes; five of the ten were camps where we also conducted in-depth interviews with members. Leaders were identified by camp members, and interviewers approached one leader at each camp. There were no refusals. Leaders were asked to describe their camp, including its characteristics and associated activities, organizational structure, history, name and goals, as well as their role within the camp.

For both sets of interviews, a quiet space close to the camp was pre-identified for conducting the interview and obtaining verbal consent. Each interview lasted 20–40 minutes and was conducted in Kiswahili, the respondents' first language, by local staff trained in qualitative research methods. Participants were provided a drink and snack for their time. All interviews were audio-taped, transcribed in Kiswahili, and translated to English. Using Atlas.ti, the textual data from the interviews and observations were coded according to pre-identified and emergent themes (Miles, 1994). Pre-identified themes included camp members' engagement in risk behaviors, such as meeting sexual new partners and engaging in drug use, social activities at the camps and leadership. Emergent themes were identified by taking an inventory of the quotations related to the given code, capturing the variation in each theme and noting differences between individuals. Matrices were developed to categorize the data and determine the relationships among the themes and the dimensions by which the data could be interpreted (Miles, 1994).

Results

Descriptions of camps and participants

Tandale is separated from neighboring wards by a couple of main roads, and within the ward there are many narrow footpaths and few formal roads (Google Maps, 2010). Some camps were close to the main roads, while others were located on the footpaths. Each camp was composed of a geographic space. All camps included a space for sitting and a camp sign. The physical space for camps varied. We observed seven camps that were unbounded, without physical boundaries on most sides. Some unbounded camps were located next to a wall of a building or home, as this observer reported:

> The venue is at one end of a house that is still under construction. It is next to a man who shines shoes. The house has about four stair steps which are cemented and painted red. The boys sat on the stair steps. There was a sign board [where it was] written [the name of the camp].

Other unbounded camps were located in open spaces with sitting areas. For example, one camp consisted of a few benches underneath a mango tree.

In contrast, we observed sixteen bounded camps, characterized by a physical structure that marked the camp space. Some bounded camps consisted of an open area covered by a detached roof, while others were abandoned or unfinished houses. Bounded camps often had rooms for activities, including three camps with rooms that may have been residential, as this observer described:

> The building is made of cement and bricks. The floor looks clean and the house is roofed with iron sheets. It is a place where many people sit because there is enough shade. There are three doors…which were said to be their rooms for sleeping.

The ages of the study participants are described in Table 1. Camp members were generally younger than leaders. About half the participants reported renting a room on their own or with friends and half reported living with their parents. Members and leaders differed in educational status and employment. While one-third of the members were in secondary school, equivalent

to high school education in the U.S., about one-third of leaders received extra training beyond secondary school, such as vocational skills training. Two-thirds of members were not in school and had informal jobs, such as peddling wares or providing services. In contrast, most of the leaders had formal jobs; about half worked on the city buses as drivers or conductors.

Origin of camps—All camp leaders reported being a "founder" of their camp, which existed continuously since its inception. The average number of years that camps existed was 8.5, with a range between four and thirteen years. Most leaders reported forming their camp with friends with whom they already engaged in group activities, such as playing music or football. A common motivation for forming a camp was to have a space where young people could socialize together. For example, one leader stated that he worked at a bakery where he and other young male employees performed "boxing exercises". After the bakery ceased to exist, the leader and his fellow employees shifted their boxing activities to a space on the side of Tandale road; this space became their camp. Other groups formed camps so that members could support each other in dealing with "life issues", such as relationships with girls, jobs, and playing sports and music. All camps reported having a "camp launch", a party with entertainment and food, to formally mark their camp's beginning. The young people publicized and collected donations for the launch and invited local leaders.

Camp names—Camps were given names to indicate that members were "the children of this place [the camp]" and reflected camp activities or characteristics. For example, the boxing camp was given a name similar to the word "knuckles". Sometimes members changed their camp name to accommodate new interests. For example, after forming a football team one camp changed its name from a popular musical group to a popular football team. Some camps assumed names that exalted members' characteristics; for instance, members reported the meaning of one camp name was "ingenious boys". Some names represented community power, as this member explained: "This camp, we happened to like our name … because of the Osama [bin Laden] war, and because those events were occurring here in our street…when people annoy us or one of us is beaten then we do the same".

Social characteristics of camps

Social organization—All camp leaders described a democratic governance system. Each camp had a constitution and a leadership that minimally constituted a chairman, secretary and treasurer. Members voted to determine goals, resolve issues, and elect camp names and leaders. Leaders were infrequently replaced in cases when members were dissatisfied with their behavior, for example, stealing camp funds, or when leaders moved or had family problems that prohibited them from attending the camp.

Most camps kept a list of members and had a limited number of formal requirements for membership, such as paying membership dues. Several men reported that they joined a camp closest to where they lived. There was no maximum age for membership and camps included "elders". However, half of the camps imposed a minimum age; age fifteen was common.

Information on female camp members was obtained from interviews with male members and camp observations. The average number of women observed at the camps was 2 (range 0 to 8), compared to 10 men (range 2 to 35). At the majority of the camps (80%), men reported that women attended less frequently than did men. Several men referred to women who socialized at the camps as members' sexual partners or commercial sex workers. Leaders at two camps reported that they forbade female members. One leader blamed women's participation in the camps and clothing styles for male members' sexual risk behaviors. However, at eight out of ten camps, men reported that women served in leadership positions, including treasurer, secretary or assistant chairperson. One of the camps that forbade female members included an

older female camp treasurer referred to as the camp “mother”. Women were observed working at some camps; examples included a tailor and a cook.

Some community informants reported the existence of "underground" camps exclusively for women. Study interviewers located two women’s camps where they observed between four and six women socializing; fewer than three men were observed in these camps. The name of one camp was related to the term for sex worker in Kiswahili. Women applied henna or sold clothes and cosmetics at these camps. Some interviewers observed that women at both camps looked older than 19 years.

Social ties—The young men reported having strong social ties and support within their camps, as this participant described:

> The thing which attracted me [to the camp] is the closeness existing among the youths here; we live as one family in this camp. We help one another in so many things like issues of burial ceremony, in everything.

A leader explained: “we as a camp we are responsible when [a member is] sick or having any problem; we are the first people to solve it”.

Almost all participants reported coming to their camp every day and socializing there for several hours. They reported going to other camps for events or activities, but always returning to their own camps. A few members stated that the only reason they wouldn’t attend their camp daily is if they were traveling or ill.

Financial support—In all camps, members paid dues. Camp funds were sometimes kept in a bank account and used to support camp activities. Financial assistance was available to members for marriages, funerals, illness or other family problems. For example, one camp helped a member’s relatives who were orphaned by AIDS. Camp members also helped each other obtain work, as this participant explained:

> We help each other in life’s issues like giving each other jobs….. For example…I was working somewhere… and I took like three people there. I gave them experience and they got it right. It reached to the extent at the boss was coming asking [me] for a certain person….

Some members reported coming daily to their camp to check for work opportunities.

Social activities—The most common social activity at the camps involved members “telling stories” or “exchanging ideas”. Other typical activities included playing football, music, and pool. Camps also hosted parties and celebrations.

Some camps engaged in community activities. For example, members from one camp sang songs to raise community awareness concerning HIV/AIDS. Another camp’s members volunteered to clean their street.

Income-generating activities were also common. Members created camp businesses devoted to selling wares, like videos, car parts, eggs, water, used clothing, and twist wicks to ignite stoves. They also developed service-oriented businesses, such as washing cars and tailoring clothes. Profits were usually divided between members and the camp treasury.

Social control—Camp leaders were available to members to resolve intra-camp conflicts and instituted camp rules. For example, members complied with a leader’s rule about not going to a beach where an adolescent died. Some leaders reported attempting to prevent members

from stealing by educating members about alternatives and expelling members who were caught stealing.

Community relations—Most camps experienced positive relations with their surrounding communities. Almost all camps involved community elders and business owners who served as informal camp guardians. Camp leaders reported receiving support from community members, as this leader described:

> After participating together, many people supported us…They said, 'Start your camp…We need the youths to understand each other.. and be able to work together… Even when a person does mistakes warn him or her. You should not take anyone to the local government unless it's a serious issue which is out of your control.'

On the other hand, two leaders reported that community members actively opposed their camps. One camp changed its location three times to avoid negative interactions with its community. Another leader described how members were invidiously targeted by locals:

> There are community guards, 'Sungusungu'. If they see young men sitting drinking their beers, they say, 'These children have no job and they become drunk… They are just thieves…' [But], we do not have behaviours like thieves. Or the police pass and catch loiterers. … So if things like that happen we contribute money so that we get them out [of jail].

Risk behaviors in camps—Community members' diverse perceptions of the camps may have been due in part to camp members' reports of frequent marijuana and alcohol use. One camp was known for providing marijuana to young people. Although community informants reported that some camp members used drugs other than marijuana, participants did not disclose such use during these interviews.

More than four-fifths of camp members had more than one sexual partner in the past six months (the range was from one to eleven). About two-thirds of the camp members reported having two or more sexual partners in the same time period, or concurrent partners. Typically, the men had one main partner and one or more casual sexual partners. Men more frequently reported using condoms with their casual partners and tended not to use condoms with their main partner. About one-third of camp members reported having casual partners who were either barmaids or commercial sex workers. These partners were described by members as being older than themselves and having other sexual partners.

Camp's role in HIV risk behavior

Access to sexual partners—Several camp characteristics influenced men's HIV risk behaviors, including facilitating access to sexual partners at the camps. Half the participants met at least one of their sexual partners from the previous six months at a camp. Other places where men met sexual partners included schools, neighborhoods, area streets, beaches, guest houses, local brothels, and bars. Men reported that engaging with women who passed by their camps could lead to sexual relations, as this participant described:

> Now as she kept on passing here (camp), I do not think that she lived far from here; I happened to like her. So I called her and she responded to my call, you see! She stood aside and I talked to her and she understood me on that same day… But on that day I was not lucky to have sex with her. I just met her here--- then I arranged with her [to have sex].

Geographic location—Many camps were located near guest houses where men reported renting rooms for having sexual intercourse. Camp members reported that commercial sex

workers from the guest houses approached them for work. Several participants reported that camp members visited *Uwanja wa Fisi* (*Hyena's Ground*), the most famous brothel in Dar es Salaam. Members acknowledged that *Uwanja wa Fisi* was a risky place for HIV; however, they still went there for sex, as this participant explained:

> …there are many girls there (*Uwanja wa Fisi*)….When you have argued with your girl you go to such places. You get one girl to have sex with. 'Unagonga' - I mean you get rid of the hard on.

Most members reported having sex in guest houses, rented rooms, or in public spaces surrounding the camps at night. As one participant stated: "in our areas there are many narrow paths so the person may finish his stuff [have sex] there". Some men reported engaging in inconspicuous sexual intercourse in dimly lit camp rooms during nighttime.

Furthermore, camp members arranged for each other to have sex and persuaded each other to "seduce" sexual partners, as this participant described: "We look at them [women] there at the street and see which one is good…We tell maybe one person amongst us who can maybe try approaching her". One participant reported being persuaded by fellow camp members to visit a commercial sex worker when his primary partner was away and said he would be taunted if he did not comply. He reported having sexual intercourse with sex workers three times. Though he reported using condoms with the sex workers, he said he did not use condoms with his primary partner.

Influence of camp leaders—Some camp leaders considered it part of their role to control members' sexual risk behavior. For example, a leader reported forbidding members from engaging with known HIV positive commercial sex workers. Another leader ruled that members could not meet girlfriends at clubs because such women have sexually transmitted diseases. Another required that members only have one girlfriend. However, leaders reported that sexual behavior rules were difficult to enforce and members were often resistant, as one leader described: "I've been seen as a poison because I'm the one who is against those issues of sex". Some members reported that disobeying rules for sexual behavior could incur punishment by the leaders, such as being "chased out" of the camp.

Finally, the camp leaders complained that HIV prevention services were not available in Tandale. Several leaders suggested providing HIV testing in close proximity to the camps for members' convenience. Although local non-governmental organizations were aware of the camps and offered some youth programs, none focused specifically on HIV prevention at the camps.

Discussion

This is the first paper to describe young men's camps in Tanzania. Other outdoor spaces where urban, poor youth commonly socialize and inject drugs, called "maskani" and "magetos", have been previously described in Dar es Salaam, but to our knowledge there is no overlap between these spaces and the camps (McCurdy, Williams, Kilonzo, Ross, & Leshabari, 2005; S. McCurdy, personal communication, November 6, 2009). Camps may be distinguished from these other spaces by the economic support they provide to members and by their organized, democratic social systems.

Despite their positive attributes, camps were also sites for HIV risk behavior and group pressure to engage in such behavior. Men reported encouraging each other to meet new sexual partners at the camps, including commercial sex workers, and engaging in concurrent sexual partnerships. Concurrency involves having multiple sexual partners that overlap in time and is a behavioral marker of high risk sexual networks that accelerate the spread of HIV (Doherty,

Padian, Marlow, & Aral, 2005). Venues where HIV risk behaviors occur are strategic targets for reaching high risk sexual networks (Ellen, 2007; Weir et al., 2003). Therefore, the camps may be ideal sites for HIV prevention programs.

Interpreting these findings within the therapeutic landscape framework can help assess the influence of camps on young men's health behaviors and the features of camps that should be targeted for change (Cummins et al., 2007; Cutchin, 2007). We examine our results according to three domains of the therapeutic landscape framework: built environment; sense of identity of landscape occupants; and collective efficacy among individuals that socialize in the landscape. We then discuss how these features could be targeted by HIV prevention interventions.

Camps' built environment

The built environment consists of man-made structures for physical activity and social interaction and is associated with health outcomes (Frumkin, 2003). The built environment of the camps provided dedicated spaces for youth to socialize and play organized sports, such as boxing and football, which fostered social cohesion and physical health. Youth claimed camp spaces by naming and regularly socializing in them, implying that such spaces were not organic to their neighborhoods. In a slum-like area like Tandale, where poverty and informal employment are common (Mboup, 2004), owning a public good like physical space is a luxury. Appropriation of public space has been described in other under-resourced settings where informal groups of "street" people, including the informally employed and squatters, illegally claim public goods like land, water, and electricity to survive (Bayat, 1997). Similarly, Tandale youth used their camps to create income-generating opportunities. Informal groups may also claim hidden spaces to avoid governmental surveillance and control their environment (Bayat, 1997). Likewise, camp leaders described implementing social rules for members and avoiding negative intervention by the local government or police.

In addition to health-promotion opportunities, the camps' built environment contributed opportunities for members' to engage in HIV risk behavior. Camps' proximity to guest houses and brothels facilitated members' interactions with commercial sex workers, who are more likely to have sexually transmitted diseases. In addition, members reported having sexual relations around camps and on narrow paths at night. Such spaces did not require payment for privacy and, thus, may have made it easier for men to afford having sex with multiple partners.

Sense of identity among camp members

Everyday landscapes, where people perform habitual activities, confer a sense of identity and belonging upon their occupants (Gesler, 1992). Young men attended their camp daily to socialize and "tell stories". This kind of routine socialization, or 'passive recreation', has been identified as a characteristic of a therapeutic landscape (Cattell et al., 2008). Landscape occupants' sense of identity may also be reflected in the symbols they attach to the landscape (Gesler, 1992). Camp members' sense of identity was symbolized by the names they assigned to their camps. For example, camps where members played sports had names that reflected this orientation. By socializing among fellow members with similar social identities, members reported feeling a sense of social cohesion, which is postulated to have positive health effects (Kawachi & Berkman, 2000; Popay et al., 2003).

A strong sense of identity and belonging may facilitate group members' adoption of healthy or risky behaviors (Popay et al., 2003). For example, researchers found that participants in a camp for disabled youth felt a stronger sense of social belonging at the camp than they did in their home communities, inspiring them to be more independent and resourceful (Goodwin &

Staples, 2005). Similarly, Tandale camp members' sense of belonging encouraged them to work together to handle life challenges, such as unemployment.

Landscapes that promote a sense of belonging for some may socially exclude and stigmatize people who do not match the dominant group's identity (Poland, Lehoux, Holmes, & Andrews, 2005; Wakefield & McMullan, 2005). The camps where women were marginalized or perceived solely as men's sexual partners may have been experienced by women as non-therapeutic spaces. However, some camps included women leaders, even if they were serving in lesser positions like treasurers. Thus, women's experiences within camps are likely determined in part by the attitudes of the male members. Because men's power in sexual relationships is linked to women's HIV risk in Tanzania, men with patriarchal attitudes should be targeted by HIV prevention interventions that also promote gender equality (Maman, Mbwambo, Hogan, Kilonzo, Campbell, Weiss, et al., 2002). Some camps might become less risky spaces for women if the men in those camps were exposed to such programs.

Collective efficacy in camps

Collective efficacy, the extent to which people expect that they will be able to collectively solve their mutual problems, is a feature of the therapeutic landscape (Cattell et al., 2008). Collective efficacy in the camps was evident in members' activities to generate income. Because most camp members were jobless and out of school, income generation was necessary for survival. In contexts where people are impoverished, any activity that promotes survival may be construed as therapeutic (Sperling & Decker, 2007).

One prerequisite for developing collective efficacy is social control, the extent to which people comply with social rules or norms (Sampson, Morenoff, & Earls, 1999). In another setting, camp leaders served as role models for healthy behavior to camp members (Thurber & Malinowski, 1999). In our study, social control was evident in the camp members' compliance with the commands of their leaders; it is worth investigating whether leaders could also model healthy sexual behaviors.

Collective efficacy may also influence sexual risk behavior. In one study, high levels of collective efficacy predicted fewer short-term sexual partnerships among adult men and social control may have been a mediating factor (Browning & Olinger-Wilbon, 2003). Tandale camp leaders reported that members were resistant to efforts to control their sexual behavior. Improving leaders' strategies for controlling members' behaviors might help reduce HIV risk behavior in the camps.

Finally, collective efficacy may be harmful to health when used to promote crime, as in the case of youth gangs (Browning, Feinberg, & Dietz, 2004; Sampson, Raudenbush, & Earls, 1997). Given the collectivist structure of the camps, youths may be inspired to engage in negative behaviors together. While we did not find evidence that camps engaged in violence and crime, we know that some leaders disciplined members involved in theft. Young men who commit petty theft are at risk for mob violence in Dar es Salaam; mob violence was the cause of 57% of homicide deaths there in 2005 and young men who committed petty theft were most often the victims (93.4%) (Outwater, Campbell, Mgaya, Abraham, Kinabo, Kazaura, et al., 2008). Economic development programs, such as business loans or job training, may prevent camp members from stealing by offering them an alternative to generate income.

Camps as sites for HIV prevention interventions

Public health practitioners seeking to change place-based determinants of health may consider structural interventions which explicitly target the physical or social environment (Blankenship, 2000). Planning interventions for landscapes could draw on an assets approach

that balances enhancement of therapeutic features with reduction of risk features (Braubach, 2007). The following are examples of such strategies for the Tandale camps, according to three therapeutic landscape domains.

Targeting the built environment—Adding therapeutic features to the built environment, such as public recreation spaces, may result in "preventive" landscapes for health (Braubach, 2007). Providing more recreation space in Tandale could enhance camps' therapeutic features by increasing men's opportunities to play sports. Improving nighttime lighting might deter members from having sex at night, which could indirectly influence men's engagement with multiple sexual partners.

HIV preventive landscapes may also be generated by adding prevention resources to the built environment, such as voluntary HIV counseling and testing sites. Increasing men's opportunities for HIV testing could help alleviate the burden on women for HIV status disclosure and improve timely treatment for those who are infected (Greig, Peacock, Jewkes, & Msimang, 2008). Governmental support would likely be necessary to build and sustain such services.

Targeting men's sense of identity/belonging—People who feel integrated into healthy communities may be more motivated to engage in health-promoting behaviors (Popay et al., 2003). Scaling up community support for camps may increase members' sense of belonging to their communities. Community mobilization is one strategy for improving integration among community groups (Blankenship, 2000). For example, camp and community members could work together to clean up their community.

Interventions that improve women's sense of belonging to the camps may also enhance the HIV prevention landscape. Several interventions have successfully transformed young men's attitudes to treat women more equitably and reduce their HIV risk behaviors in sexual relationships (Barker, Ricardo, & Nascimento, 2007). Men who involve women as equals in their camps may be more likely to share sexual decision-making with their female partners.

Targeting collective efficacy within the camps—Enhancing collective efficacy is another strategy for augmenting preventive landscapes. Microfinance, or small loans for camp businesses, could improve camp members' entrepreneurship skills and promote healthy behavior. South African women who participated in a microfinance intervention sustained reductions in HIV risk behaviors up to two years post-intervention (Pronyk, Kim, Abramsky, Phetla, Hargreaves, Morison, et al., 2008). However, microfinance programs among men have experienced less success, and men are considered a greater credit risk (Khandker, 2005). Men may use their profits to engage in risky behaviors, such as soliciting commercial sex workers. Formative research would need to examine these contingencies before implementing a microfinance intervention with men.

Improving social control may reduce risk features of landscapes. For example, camp leaders could be trained to deliver messages that promote healthy sexual behaviors. An intervention using opinion leaders who were selected based on popularity and trust and trained to deliver health messages lead to significant changes in HIV risk behavior among young gay men in high risk venues (Amirkhanian, Kelly, Kabakchieva, Kirsanova, Vassileva, Takacs, et al., 2005). While we did not collect information on what criteria the camp members used to elect their leaders, most leaders reported being camp "founders", suggesting that longevity within the camp may have been a factor.

Cautious approach to intervention—Public health practitioners should take a cautious approach to altering landscapes when occupants are socially marginalized and perceive their

landscapes as protective. For example, gay bathhouses are a socially protective space for patrons in Canada, despite the risk behaviors that occur there (Andrews & Holmes, 2007). One strategy for targeting landscapes of marginalized groups is to involve them in planning intervention activities.

Classifying landscapes as risky could also further stigmatize landscapes or their occupants (Whitelaw et al., 2001). By pointing out the risky features of landscapes, politicians may be discouraged from investing in them, believing they are “beyond help”. To some extent, such labeling has already occurred in Tandale, because of the proximity of *Uwanja wa Fisi*, the local brothel. To prevent stigmatization, interventions could target features of the built environment, which may not be directly associated with landscape occupants. Publicly promoting camps’ positive features may also improve their reputations and enhance support for them.

Study limitations

This study is not without limitations. Participants may have exaggerated the positive features of their camps. Self-presentation bias has been discussed in another, similar study (Wakefield & McMullan, 2005). We attempted to deal with the potential bias by triangulating camp members’ reports with observations. Observational data confirmed members’ reports of risk behavior, such as marijuana use and engaging with commercial sex workers, as well as positive behaviors, such as camp entrepreneurship.

Another limitation is that the observations presented may be specific to the community studied. However, we know that youth camps exist in other wards of Dar es Salaam and that organized men’s groups have been described elsewhere in Africa (Soldan, 2004). Health geography research often focuses on local places with the objective of gaining an in-depth perspective on the place-person interaction (Poland et al., 2005; Wakefield & McMullan, 2005; Whitelaw et al., 2001). Although the findings may not be generalizable, such research may be used to complement findings from social epidemiology (Cutchin, 2007).

Conclusion

This study adds to the literature on landscapes that are simultaneously health and risk producing, according to the therapeutic landscape framework’s domains of built environment, sense of identity and collective efficacy. Camps are important settings for HIV prevention interventions not only because of the risk behaviors and gender inequities they can promote, but also because they are a vehicle through which to reach this population of at risk young men who are not formally employed or in school. The strong social bonds the members experienced within their camps may also sustain them in a camp-based intervention. Finally, it is likely that HIV prevention interventions developed for camps may be adaptable to other settings in which social venues are commonly frequented by youth at risk for HIV.

References

Amirkhanian YA, Kelly JA, Kabakchieva E, Kirsanova AV, Vassileva S, Takacs J, et al. A randomized social network HIV prevention trial with young men who have sex with men in Russia and Bulgaria. AIDS 2005;19(16):1897–1905. [PubMed: 16227798]

Andrews, GJ.; Holmes, D. Gay bathhouses: The transgression of health in therapeutic places. In: Williams, A., editor. Therapeutic landscapes. Burlington, VT: Ashgate; 2007. p. 221

Barker, G.; Ricardo, C.; Nascimento, M. Engaging men and boys in changing gender-based inequity in health: Evidence from programme interventions. Geneva: World Health Organization and Instituto Promundo; 2007.

Bayat A. Un-civil society: The politics of the 'informal people'. Third World Quarterly 1997;18(1):53–72.

Blankenship KM. Structural interventions in public health. AIDS 2000;14:S11. [PubMed: 10981470]

Braubach, M. Preventive applications of the therapeutic landscapes concept in urban residential settings: A quantitative application. In: Williams, A., editor. Therapeutic landscapes. Burlington, VT: Ashgate; 2007. p. 111

Browning CR, Feinberg SL, Dietz RD. The paradox of social organization: Networks, collective efficacy, and violent crime in urban neighborhoods. Social Forces 2004;83(2):503–534.

Browning CR, Olinger-Wilbon M. Neighborhood structure, social organization, and number of short-term sexual partnerships. Journal of Marriage and the Family 2003;65(3):730–745.

Cattell V, Dines N, Gesler W, Curtis S. Mingling, observing, and lingering: Everyday public spaces and their implications for well-being and social relations. Health & Place 2008;14(3):544–561. [PubMed: 18083621]

Coleman, JS. Foundations of social theory. Cambridge, Mass: Belknap Press of Harvard University Press; 1990.

Collins, D.; Kearns, R. Ambiguous landscapes: Sun, risk and recreation on New Zealand beaches. In: Williams, A., editor. Therapeutic landscapes. Burlington, VT: Ashgate; 2007. p. 15-31.

Conradson D. Landscape, care and the relational self: Therapeutic encounters in rural England. Health & Place 2005;11(4):337–348. [PubMed: 15886142]

Cummins S, Curtis S, Diez-Roux AV, Macintyre S. Understanding and representing 'place' in health research: A relational approach. Social Science & Medicine 2007;65(9):1825–1838. [PubMed: 17706331]

Curtis SS. Is there a place for geography in the analysis of health inequality? Sociology of Health & Illness 1998;20(5):645–672.

Cutchin MP. The need for the "new health geography" in epidemiologic studies of environment and health. Health & Place 2007;13(3):725–742. [PubMed: 17208033]

Dar es Salaam City Council. City profile for Dar es Salaam, United Republic of Tanzania. Dar es Salaam: Dar es Salaam City Council; 2004.

Dilger H. Sexuality, AIDS, and the lures of modernity: Reflexivity and morality among young people in rural Tanzania. Medical Anthropology 2003;22(1):23–52. [PubMed: 12641295]

Doherty IA, Padian NS, Marlow C, Aral SO. Determinants and consequences of sexual networks as they affect the spread of sexually transmitted infections. The Journal of Infectious Diseases 2005;191 Suppl 1:S42–S54. [PubMed: 15627230]

Dooris MM. Healthy settings: Challenges to generating evidence of effectiveness. Health Promotion International 2005;21(1):55–65. [PubMed: 16339774]

Dunkley CM. A therapeutic taskscape: Theorizing place-making, discipline and care at a camp for troubled youth. Health & Place 2009;15(1):88–96. [PubMed: 18396439]

Dupuis AA. Home, home ownership and the search for ontological security. The Sociological Review 1998;46(1):24–47.

Ellen JM. Venue-based sampling in STD research: Generalizeable to and independent of whom? Sexually Transmitted Diseases 2007;34(8):532. [PubMed: 17667531]

Frumkin H. Healthy places: Exploring the evidence. American Journal of Public Health 2003;93(9): 1451–1456. [PubMed: 12948962]

Gesler WM. Therapeutic landscapes: Medical issues in light of the new cultural geography. Social Science & Medicine 1992;34(7):735–746. [PubMed: 1376497]

Goodwin D, Staples K. The meaning of summer camp experiences to youths with disabilities. Adapted Physical Activity Quarterly 2005;22(2):160.

Google Maps. Map of Tandale ward, Dar es Salaam, Tanzania. 2010. Retrieved January 28, 2010, from http://maps.google.com/maps/ms?ie=UTF8&hl=en&oe=UTF8&msa=0&msid=116784466583087589976.00047db08819b577702be

Greig A, Peacock D, Jewkes R, Msimang S. Gender and AIDS: Time to act. AIDS 2008;22:S35. [PubMed: 18641466]

Kawachi, I.; Berkman, L. Social cohesion, social capital and health. In: Berkman, L.; Kawachi, I., editors. Social epidemiology. New York: Oxford; 2000.

Khandker SR. Microfinance and poverty: Evidence using panel data from Bangladesh. The World Bank Economic Review 2005;19(2):263–286.

Lewis, MA.; DeVellis, BM.; Sleath, B. Social influence and interpersonal communication in health behavior. In: Glanz, K.; Rimer, BK.; Lewis, FM., editors. Health behavior and health education: Theory, research, and practice. Third ed.. San Francisco: Jossey-Bass; 2002. p. 165

Maman S, Mbwambo J, Hogan N, Kilonzo G, Campbell J, Weiss E, et al. HIV-positive women report more lifetime partner violence: Findings from a voluntary counseling and testing clinic in Dar es Salaam, Tanzania. American Journal of Public Health 2002;92(8):1331–1337. [PubMed: 12144993]

Mboup G. Measurement/indicators of youth employment. Powerpoint, Expert group meeting on strategies for creating urban youth employment: Solutions for urban youth in Africa. 2004 Retrieved September/04, 2009, from www.un.org/esa/socdev/social/presentation/urban_mboup.ppt.

McCurdy SA, Ross MW, Kilonzo GP, Leshabari MT, Williams ML. HIV/AIDS and injection drug use in the neighborhoods of Dar es Salaam, Tanzania. Drug and Alcohol Dependence 2006;82 Suppl 1:S23–S27. [PubMed: 16769441]

McCurdy SA, Williams ML, Kilonzo GP, Ross MW, Leshabari MT. Heroin and HIV risk in Dar es Salaam, Tanzania: Youth hangouts, mageto and injecting practices. AIDS Care 2005;17 Suppl 1:S65–S76. [PubMed: 16096119]

Miles, M. Qualitative data analysis: An expanded sourcebook. London: Sage Publications; 1994.

Msisha WM, Kapiga SH, Earls FJ, Subramanian SV. Place matters: Multilevel investigation of HIV distribution in Tanzania. AIDS 2008;22(6):741–748. [PubMed: 18356604]

Mziray, JC. Boys' views on sexuality, girls, and pregnancies. In: Rwebangira K, M.; Liljestrom, R., editors. Haraka, haraka… look before you leap. Stockholm, Sweden: Nordiska Afrikainstitutet; 1998. p. 144-163.

National AIDS Control Programme. Surveillance of HIV and syphilis infections among antenatal clinic attendees 2003/04. United Republic of Tanzania: Ministry of Health; 2005.

National Bureau of Statistics, Tanzania. 2002 Population and housing census. 2002

Outwater AH, Campbell JC, Mgaya E, Abraham AG, Kinabo L, Kazaura M, et al. Homicide death in Dar es Salaam, Tanzania 2005. International Journal of Injury Control and Safety Promotion 2008;15 (4):243–252. [PubMed: 19051087]

Poland, B.; Greene, L.; Rootman, I. Settings for health promotion: Linking theory and practice. Newbury Park, CA: Sage Publications; 2001.

Poland B, Lehoux P, Holmes D, Andrews G. How place matters: Unpacking technology and power in health and social care. Health & Social Care in the Community 2005;13(2):170–180. [PubMed: 15717919]

Popay J, Thomas C, Williams G, Bennett S, Gatrell A, Bostock L. A proper place to live: Health inequalities, agency and the normative dimensions of space. Social Science & Medicine 2003;57(1): 55–69. [PubMed: 12753816]

Pronyk PM, Kim J, Abramsky T, Phetla G, Hargreaves J, Morison L, et al. A combined microfinance and training intervention can reduce HIV risk behaviour in young female participants. AIDS 2008;22 (13):1659. [PubMed: 18670227]

Ross MW, Ferreira-Pinto J. Toward a public health of situations: The re-contextualization of risk. Cadernos De Saúde Pública 2000;16:59.

Sampson RJ, Morenoff JD, Earls F. Beyond social capital: Spatial dynamics of collective efficacy for children. American Sociological Review 1999;64:633.

Sampson RJ, Raudenbush SW, Earls F. Neighborhoods and violent crime: A multilevel study of collective efficacy. Science 1997;277(5328):918–924. [PubMed: 9252316]

Soldan VAP. How family planning ideas are spread within social groups in rural Malawi. Studies in Family Planning 2004;35(4):275. [PubMed: 15628785]

Sperling, JM.; Decker, JF. The therapeutic landscapes of the Kaqchikel of San Lucas Toliman, Guatemala. In: Williams, A., editor. Therapeutic landscapes. Burlington, VT: Ashgate; 2007. p. 233

Tanzania Commission for AIDS (TACAIDS), Zanzibar AIDS Commission (ZAC), National Bureau of Statistics (NBS), Office of the Chief Government Statistician (OCGS), & Macro International Inc. Tanzania HIV/AIDS and Malaria Indicator Survey 2007–08. Dar es Salaam, Tanzania: TACAIDS, ZAC, NBS, OCGS, and Macro International Inc; 2008.

Thurber, C.; Malinowski, J. Summer camp as a therapeutic landscape. In: Williams, A., editor. Therapeutic landscapes: The dynamic between place and wellness. Lanham: University Press of America; 1999. p. 53-71.

Wakefield S, McMullan C. Healing in places of decline: (re)imagining everyday landscapes in Hamilton, Ontario. Health & Place 2005;11(4):299–312. [PubMed: 15886139]

Weir SS, Pailman C, Mahlalela X, Coetzee N, Meidany F, Boerma JT. From people to places: Focusing AIDS prevention efforts where it matters most. AIDS 2003;17(6):895–903. [PubMed: 12660537]

Whitelaw S, Baxendale A, Bryce C, Machardy L, Young I, Witney E. 'Settings' based health promotion: A review. Health Promotion International 2001;16(4):339. [PubMed: 11733453]

Williams, A. Introduction: The continuing maturation of the therapeutic landscape concept. In: Williams, A., editor. Therapeutic landscapes. Burlington, VT: Ashgate; 2007. p. 1

World Health Organization. Ottawa charter for health promotion: First international conference on health promotion. Ottawa, Canada: World Health Organization; 1986. No. WHO/HPR/HEP/95.1

Zinberg, NE. Drug, set, and setting: The basis for controlled intoxicant use. New Haven: Yale University Press; 1984.

Table 1

Ages of camp members and leaders

Age	Number of male members interviewed	Number of leaders interviewed
15	5	
16	3	
17	5	
18	12	
19	11	1
22		1
23		1
24		3
25		2