Research Paper

‘Everyone is exhausted and frustrated’: exploring psychosocial impacts of the lack of access to safe water and adequate sanitation in Usoma, Kenya

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ABSTRACT

The lack of access to safe water and adequate sanitation pose significant health challenges for many individuals and communities in low and middle-income countries. Aside from direct health issues, the lack of access to safe water and adequate sanitation is increasingly associated with psychosocial concerns that affect the wellbeing of individuals and communities. However, the nature of these concerns has received little attention in peer-reviewed literature. This paper draws on environmental stress and ecosocial theories to explore psychosocial concerns related to water and sanitation in Usoma, a lakeshore community in Western Kenya. The study used qualitative key informant interviews (n = 9) and focus group discussions (n = 10). Results reveal deep feelings of anxiety and frustration, embarrassment, negative identity, feelings of marginalization, and lack of self-efficacy. These stressors were a byproduct of daily lived experiences associated with lack of access to safe water and adequate sanitation, as well as the coping strategies people adopted. The paper suggests that benefits of water interventions transcend disease reduction to improved wellbeing through complex social pathways. The findings contribute to knowledge gaps within the water–health nexus and direct policy responses toward largely unexplored psychosocial concerns associated with water and sanitation.

Key words | health and wellbeing, Kenya, psychosocial stress, water and sanitation

INTRODUCTION

Although the Millennium Development Goals (MDGs) implementation period is complete, 2.4 billion people still live without access to improved sanitation and 664 million lack access to improved sources of water (WHO/UNICEF 2015). Further, progress witnessed during the MDG era disproportionately benefited the rich rather than the poor in most countries (WHO/UNICEF 2015). Thus, poor households bear a greater burden of the health challenges that result from lack of access to safe water and adequate sanitation. Aside from water-borne diseases, water-related diseases such as dengue, malaria, trypanosomiasis, schistosomiasis and guinea worm have significant adverse impacts on the health and wellbeing of many vulnerable populations in many parts of the developing world (Cairncross & Valdmanis 2006). In addition, the lack of access to safe water and adequate sanitation affect the wellbeing of individuals and communities via numerous social and economic pathways. These include: loss of productive time spent collecting water (Thompson et al. 2001); the physical burden and adverse impacts of water carrying on women and children (Bisung et al. 2015); compromised privacy when practising open defecation in places where adequate sanitation is absent (Watt & Chamberlain 2011); and the risk of assault and quarrels during water scarcity (Sorenson et al. 2011). However, the nature and implications of these economic and social impacts have not received much attention in the peer-reviewed literature as compared to direct disease or health impacts.

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As the global community begins to implement the post-2015 Sustainable Development Goals (SDGs), assessing other concerns—beyond direct health impacts—that are critical for the dignity and wellbeing of vulnerable groups and populations will provide a better understanding of water–health linkages for global health and development. For example, within the past few years, some studies have pointed to stress as an important outcome of some of the social and economic concerns associated with lack of access to safe water and water insecurity (Wutich & Ragsdale 2008; Hadley & Wutich 2009; Stevenson et al. 2012). These studies, although limited, provide important foundations for exploring psychosocial concerns that arise from lack of access to safe water and adequate sanitation. For example, Wutich & Ragsdale’s (2008) investigation of emotional distress in a Bolivian urban slum suggests that water-related emotional distress was widespread and progressed as follows: fear, worry, anger and bother. Similarly, Stevenson et al. (2012) in a study conducted in South Gondar, Ethiopia, linked women’s psychosocial distress to water insecurity, distance to water sources and unprotected water sources. Supporting such findings with a study in a Mexican community, Ennis-McMillan (2001) revealed that people’s experience with and responses to water scarcity resulted in discomfort from dirt, unclean domestic settings and upset family members. Daily struggles to secure water also resulted in anger, anguish and frustration towards inequalities. Although these studies demonstrate important links between water insecurity and psychosocial stress, they remain limited as they focus on water insecurity in terms of quality, quantity and access.

More recently, Hirve et al. (2015) and Sahoo et al. (2015) explored psychosocial stress associated with open defecation in India and found lack of privacy, harassment and sexual assault as significant stressors among women. Recognizing that water is inextricably linked to sanitation in the public health sphere and within human rights frameworks, it is important to broaden investigations to foster a better understanding of how the lack of access to both safe water and adequate sanitation affect psychosocial wellbeing. Further, exploring how populations perceive and react to lack of water and sanitation is important for understanding psychosocial manifestations of the disparities in access witnessed during the MDGs era. This paper uses focus group discussions (FDGs) and key informant interviews (KIs) to explore psychosocial concerns related to the lack of safe water and adequate sanitation in Usoma, a lakeshore community in Western Kenya. The study was designed as part of a broader project that explored general impacts and drivers of the water–health nexus and collective action to address these impacts (see Bisung et al. (2014, 2015) for other empirical studies within the broader project).

Environmental stress and embodied health

Environmental stress theory and embodied health provide useful lenses for understanding psychosocial concerns related to water and sanitation. Baum et al. (1985, p. 186) defined environmental stress as ‘a process by which environmental events threaten, harm, or challenge an organism’s existence or well-being, and by which the organism responds to that threat’. Stress manifests due to the process of perceiving, coping with and adapting to the threat or stressors (Baum et al. 1982a). At issue is how individuals or groups appraise threats in the environments in which they live, grow and work and how they respond. Responding to these threats sometimes involves drawing upon social resources (e.g., social capital) to minimize or serve as a buffer to the impacts from the threat (Krieger 2011). In the environment and health literature, studies have explored psychosocial concerns related to actual or perceived threats within the context of modern risk societies (examples include Luginaah et al. 2002; Elliott et al. 2004; Cutchin et al. 2008; Walker et al. 2014).

While these studies remain important for understanding how individuals and communities perceive and experience various forms of risks and cope with environmental stress in techno-industrial settings, they are limited in understanding psychosocial concerns of everyday exposures that marginalized communities in vulnerable ecological settings and developing regions face. As noted by Lazarus & Folkman (1984), people’s lives are filled with stressful experiences that arise from their roles and experiences in daily living. These daily experiences (referred to as daily hassles) may not be very dramatic but are, nonetheless, important for the health and wellbeing of those affected (Lazarus & Folkman 1984). For example, the daily burden of walking long distances for water, searching for bush to practise
open defecation and fetching water from surface sources may have important implications for how individuals and communities cope with and manage their everyday environments to achieve their full potential.

Comparatively, environmental stress literature gives less attention to ‘who and what’ drives the distribution of stress-inducing exposures (Krieger 2001). Drawing from embodied epidemiology (Krieger 2011) complements our understanding of how environmental stressors in vulnerable communities are shaped by socio-economic inequalities and become embodied to generate patterns of health and wellbeing. The central premise of embodied epidemiology is that human beings embody ‘the dynamic social, material, and ecological contexts into which we are born, develop, interact, and endeavor to live meaningful lives’ (Krieger 2004, p. 350). Embodiment direct attention to the possibility of risks from lack of access to safe water and adequate sanitation being shaped by multiple societal processes and pathways via process of inequalities in power, resource distribution and economic structures. Further, resistance to these processes as well as coping strategies are important for conceptualizing the ways in which lack of access manifests in psychosocial concerns. Using both environmental stress theory and embodiment gives a holistic framework to analyse how people appraise both their physical and social environment— at different spatiotemporal scales—and how they respond behaviourally. For example, while environmental stress theory directs attention to environmental stressors and ‘buffers’ within Usoma, embodiment theory extends our lenses to ask ‘who and what drives’ these stressors and how residents perceive and react to these drivers.

RESEARCH CONTEXT

Usoma is located in Western Kenya on the shores of Lake Victoria, the second largest fresh water lake in the world. The community has a population of about 3,000 residents although new residents constantly move in due to its proximity to Kisumu, the third largest city in Kenya. A household survey revealed that 42% of households practise open defecation and the majority use water from the lake for cooking and other domestic uses (Bisung et al. 2014). However, access to improved water sources is 65% in Kisumu and only 5% of residents in Kisumu practise open defecation (Maoulidi 2010; Bisung et al. 2015). A tap located about 3 km away on the premises of a Coca-Cola bottling plant served as the closest improved water source. Community members also experienced high rates of both water-borne diseases and water-related diseases such as schitosomiasis due to frequent contact with the lake (Shane et al. 2011). As part of the broader research project, a photovoice study conducted in the community demonstrated the profound health and social impacts of the lack of safe water and adequate sanitation. These included exposure to diseases, the water collection burden on women and children and adverse impacts on savings. The community also identified various forms of activities that were undertaken to solve these problems, although the success of such initiatives were hindered by many structural factors including low incomes, unemployment and power relations (Bisung et al. 2015).

METHODS

Focus groups and KIIs were used for data collection. These two qualitative methods were conducted simultaneously between June and August, 2013. Due to the subjective nature of psychosocial stress, focus groups allowed multiple experiences and concerns to be questioned by others in a group setting. The study was approved by the University of Waterloo Ethics Review Board and the Ethics Review Committee of Kenya Medical Institute. Ten purposively sampled focus groups were conducted with between 8 and 12 participants in each group. The groups comprised as follows: two groups of young women between 18 to 39 years; two groups of young men between 18 to 39 years; two groups of older women above 39 years; two groups of older men above 39; and two mixed groups with participants above 18 years. These groups were purposefully formed to ensure free expressions of ideas and concerns as issues of water and sanitations sometimes becomes delicate to discuss among different gender and age cohorts. Before data collection, a community baraza (meeting) was held to share the study purpose and objectives with the entire community members present. Members interested in participating were
then asked to give their names to either the village women’s group leader or the village elder. These leaders were only required to write down names and not decide on who participated. After a week, the list of names was collected from the leaders and the first author contacted each person to again explain the study objectives and schedule the group discussions if possible. Informed consent was then obtained from participants before each group discussion or interview. The focus groups (facilitated by the lead author and translated into DhoLuo by a research assistant from KEMRI) were centred on participants’ daily experiences related to water and sanitation that had adverse impacts on their wellbeing. All the discussions were conducted under a tree commonly used for community gatherings and lasted between 90 and 120 minutes. KIIs were also conducted with nine participants (see Supplementary material, available in the online version of this paper. Table S1 for groups and organizations from which key informants (KIs) were drawn). All the interviews were conducted in English (the preferred language of the KIs) and lasted between 60 and 90 minutes. KIs were recruited by the first author and were identified based on their work experience, knowledge and level of involvement in community activities. All subsequent KIIs and focus groups were recorded and transcribed verbatim for analysis.

Both inductive and deductive coding were employed for the data analysis. Inductive coding allowed as many themes to emerge as possible, while deductive coding relied on matching the observed data with psychosocial constructs in the environmental stress literature (Baum et al. 1982b; Lazarus & Folkman 1984; Luginaah et al. 2002; Elliott et al. 2004; Walker et al. 2014). Coding was first done line by line to record the initial themes discussed. These codes were then reviewed for convergence with ‘an eye on counter-intuitive material’ that needed to be clarified (Miles & Huberman 1984). After this review, codes were grouped into bins of clear conceptual variables (overarching themes) (Miles & Huberman 1984). Data were recoded after three months for any rival perspective that might have been overlooked. This second coding yielded very similar codes with the initial coding (high check-code reliability). Four overarching themes were identified after the analyses: embarrassment, feeling of marginalization and lack of self-efficacy, anxiety and frustration, and negative place identity.

Findings

Findings from the data are presented according to the four broad themes. Table 1 also presents some examples of concerns under each theme. Pseudonyms are used in the presentation of findings to ensure the anonymity of study participants.

Embarrassment

Embarrassment was a dominant experience reported in all focus groups. Embarrassing experiences were particularly more pronounced in the female group sessions than the male ones. With regards to safe water, people usually felt embarrassed using ‘dirty’ water in the presence of visitors. Vicky explained:

*It is a difficult choice [drinking lake water] for my family because we usually feel embarrassed drinking dirty lake water in the presence of friends and visitors.* (FG, older women, 40+ years)

Similarly, Zaria acknowledged difficulties involved in walking long distances to collect water from the Coca-Cola tap. However, she still does it or buys from water vendors because providing clean water for visitors was a high moral and cultural obligation for her. She said:

*It is very embarrassing to offer lake water to visitors. It is not part of our culture to welcome visitors without offering clean water.* (FG, young women, 18–39 years)

Participants also repeatedly mentioned how embarrassing it was to live without toilets. Fred explained:

*It [lack of adequate sanitation] is getting worse and very shameful. Even as a visitor if you [research team] request to attend nature’s call, we will just show you the bush. What is more shameful and embarrassing than that?* (FG, mixed aged group)

The lack of privacy when practising open defecation was also a concern. Many participants recounted awkward experiences they sometimes encounter ‘in the bush’:

*Sometimes you go to the bush and see females and males all doing their own thing. Things can’t be normal that...*
It is pathetic because during the dry season, bushes are not thick. Somebody can see you in the bush even from far. (FG, older men, 40+ years)

Similarly, KIs recounted some experiences people go through when looking for safe places to practise open defecation. A KI explained everyday encounters with insects and reptiles ‘in the bush’:

Sometimes people have to go deep into the bush because of privacy and rather find themselves at the mercy of snakes and bees. Yeah! So all these are daily shameful events and traumas associated with open defecation in our community. (KI interviews)

Further, these concerns and experiences associated with ‘finding good places’ to practise open defecation were often seen more as a problem among females rather than their male counterparts.

Feelings of marginalization and lack of self-efficacy

Some encounters between community members and local government officials led to high perceptions of marginalization from government and a lack of self-efficacy to change things:

Some people look down on us! We can’t get help from the government to construct toilets so how do you think
people see us? More or less like refugees in our own village. It is a shame to live in a community without even one good public toilet. The government does not listen to our concerns! (FG, young men, 18–39 years)

A KI in relation to care at the community dispensary expressed similar concerns. To her, water for primary health care provision was a major priority and concern:

Even the health facility is not spared when it comes to water challenges yet the county government does little to support. They sometime run out of water and have to struggle to provide care....I get worried about the type of care we receive without running water. (KI interviews)

While participants expressed a lack of support from government, they also felt a sense of powerlessness and hopelessness to confront agencies mandated to provide water for them. For example, a participant contextualised inequities within the framework of a human right to water and sanitation:

Getting clean water is making us poor because we buy in jerry cans from bodaboda [water vendors that use bicycles]. Water is a basic right and people are supposed to get clean water at a reasonable price or at the same prices as a fellow countryman. But because officials look down on us and we can’t also confront them, no one cares about what we drink! (FG, older men 40þ years)

Participants expressed worry about exposure to schistosomiasis and other water-related diseases through contacts with the lake. Although these diseases had great adverse impact on their health and wellbeing, a KI was concerned about the way Usoma is portrayed as an ‘unhealthy community’ among the surrounding communities:

Most of the diseases here are water and sanitation related but there is really very little the community can do to stop them. You have to sympathise with us because even the neighbouring communities now associate Usoma with only poor health. It makes us really look inferior to outsiders! (KI interviews)

Participants also expressed concerns at the community's inability to provide a secure environment for residents. Although Usoma attracts urban newcomers due to its proximity to Kisumu, most of them leave after a few months because the community lacks so many facilities, particularly water and sanitation facilities:

Because there is no community sanitation block and good water, tenants find life uncomfortable and leave after some few months. Only a few and wealthy people who can build their own toilets remain. Most of them just leave if they can! (KI interviews)

In addition, participants mentioned some negative experiences and events that are now considered part of daily life in Usoma. These included odour from open defecation, the burden of schistosomiasis and frequent outbreaks of water-borne diseases. They were particularly worried that ‘outsiders’ knew about these conditions in Usoma:

Smell from open defecation makes you uncomfortable but even outsiders are aware that is part of life in Usoma. Even having a discussion [referring to the group discussion being conducted] like this in an open area near bushes could be very uncomfortable. (FG, mixed aged group)

Anxiety and frustration

Uncertainty about when the water and sanitation challenges will be solved was a major concern. Many reported feelings of anxiety about the future, particularly in relation to contamination of the lake, rising unemployment and increasing population in the community:

The water situation is getting worse. We are now hopeless because we have no source of clean water in the community despite all our efforts. The population is increasing yet no sign of a better tomorrow. Tomorrow could even be worse because the lake is also getting very contaminated and filled with water hyacinth (FG, young women, 18–39 years)
These uncertainties also translated into constant worry:

You can only live without water for short periods but when it becomes part of your daily life, you sleep while thinking of where to get water for bathing, cooking and drinking the next day. That is exactly how life is in Usoma! (KI interviews)

Rising unemployment and cost of materials for constructing sanitation facilities compounded the uncertainty. Thus, people were not only concerned about their present circumstances but also how to solve the problem in the near future:

Open defecation is worsening because the cost of constructing good toilets keeps on increasing and so many people cannot afford. For every day, every week, every month we worry about how to fill the sanitation gap because the cost of even cement keeps on increasing (FG, older men, 40+ year)

Some participants also complained about long queues at the Coca-Cola tap due to high demand. Because the village is close to the Kenya Pipeline Company, some truck drivers from parts of Western Kenya and other East African countries that come to collect petroleum products from the oil depot also depend on the Coca-Cola tap (which is located opposite the pipeline company):

Sometimes you get frustrated waiting in a long queue at the tap after making such a long journey there. We sometimes leave the jerry cans there and go back when it is less crowded. But it is all waste of precious time! (FG, young women, 18–39 years)

People also expressed growing apathy towards financial contributions for communal initiatives related to water and sanitation. Such apathy was tied to previous efforts that yielded limited results in terms of ameliorating their challenges. Residents who were involved in community mobilization activities felt such apathy could affect social cohesion in the long run. A community leader in one of the focus groups explained:

It is very difficult to talk about contributions or anything like that because people think the problem can never be solved without external support. And you know if you talk and people are not willing to listen it really affects you emotionally and can affect your relations with them. People can easily quarrel over such things because everyone is exhausted and frustrated. (FG, older men, 40+ years)

Coping strategies

Most respondents employed action-focused strategies in response to the health threats from lack of safe water and adequate sanitation. Some of these strategies came with financial costs that many people were willing to bear (at least in the short term). With regards to water, many people relied on walking long distances to get safe water (at least for drinking) and/or treating the lake water. A woman explained:

Water is an issue of survival! We are trying to survive within the conditions we find ourselves. We have no choice than to buy from bodaboda or treat the lake water so long as we can. If you don’t have money then you have to walk all the way to Coca-Cola. You can imagine the burden of carrying water from that long distance. (FG, older woman 40+ years)

With regards to sanitation, action focused activities mostly involved participating in educational programmes and contributing labour to help a neighbour construct a pit latrine with reciprocal arrangements for free usage:

People have also started helping each other to construct toilets for shared use (FG, young women, 18–39 years)

Similar identified actions involved using a neighbour’s pit latrine while contributing towards its maintenance. However, sharing pit latrines had its own problems as explained by a KI:

Sometimes, out of ten homes, you are likely to get only one with a pit latrine and that forces people to share. It might be useless if you don’t share because any disease that affects your neighbor without a toilet can be transferred to you. However, people sometimes quarrel over
the maintenance and cleaning of shared facilities, which is not the best.

Only a few emotionally focused coping strategies were reported. These strategies aligned with pragmatic acceptance put forward by Giddens (1990). For example, some participants decided to live with the situation:

*If you don’t have money to buy clean water or construct a pit latrine what can you do? There is very little you can do about that. Just live with it!* (FG, young men, 18–39 years)

In addition, some respondents who are involved in mobilizing the community for water and sanitation activities were beginning to ‘give up’ and accept the situation:

*We are seeing some improvements in our ways of living especially how we come together to solve common problems but when it comes to water, those of us involved are beginning to give up and just accept our current condition.* (FG, older women, 40+ years)

Overall, most of the action focused strategies were facilitated by external non-governmental organizations through other groups and committees within the community (see Bisung et al. (2016) for a detailed description of NGO involvement in Usoma).

**DISCUSSION**

The findings indicate that residents in Usoma face many social challenges as a result of daily struggles to meet their water and sanitation needs. Many of the residents had to walk long distances to access water (if one did not want to pay for the services of bodaboda) or rely on contaminated lake water. Further, the trade-offs made by residents in order to get safe water was of significant concern; such trade-offs included sacrificing other household needs to buy water from bodaboda, forgoing other productive activities in order to spend time collecting water, and spending money on water treatment products, etc. These trade-offs had adverse impacts on the quality of life and wellbeing of residents. With regards to sanitation, concerns associated with open defecation exceeded widely acknowledged disease impacts in the literature to include risk of harm from insects and reptiles, discomfort from smell, and concerns resulting from compromised privacy.

In light of these challenges and concerns, residents held deep feelings of neglect by both the local and central government. Thus, concerns about inequalities in the water sector and feelings of marginalization were widespread. Wutich & Ragsdale (2008) noted similar concerns in Bolivia, and suggested that distress largely occurs as a result of perceived unfairness and social inequalities in society and not necessarily the absolute lack of water. For residents of Usoma, lobbying/negotiating for extension of water pipes or boreholes into the community was likely to yield limited results because they lacked ‘powerful and well connected people’ to legitimize their concerns (Bisung et al. 2016). Further, there were growing negative place experiences and identity construction. High disease burden and deprivation from the basic necessities of life had profound effects on their experiences of place. Some participants felt renters were leaving the community because it could not provide a secure environment to live and work. Others also perceived Usoma to be ‘inferior’ when compared to other neighbouring communities. Thus, addressing water and sanitation challenges in Usoma and similar communities around the world will likely enhance inclusiveness and promote safe and healthy environments as envisioned in the SDGs.

Uncertainty and frustration influenced residents’ participation in collective action. In stress theory, it is argued that stressors that are uncontrollable are usually likely to ignite helplessness (Evans & Cohen 1987). That is, if coping strategies fail to modify an environmental stress, individuals are likely to feel frustrated and helpless. For example, the many years of lobbying for water by community elders was gradually giving way to apathy. The lack of power or agency to act can further create anxiety towards (perceived) worsening conditions, especially where coping resources are limited. Further, growing apathy towards water-related communal activities could lead to low participation in other communal activities, since many residents felt any community initiated interventions without outside support were ‘doomed to fail’.
Usoma residents employed both action and emotionally focused coping strategies, two dominant strategies in environmental stress literature. Many of the action-focused coping strategies were dependent on other factors. For example, although people reported sharing pit latrines with a neighbour or relative, this was largely dependent on the amount and quality of social networks one possessed, and the ability to contribute towards cleaning and maintenance of the pit latrine. Action focused coping strategies regarding water, such as water treatment or buying from a bodaboda, were also dependent on income and saving levels. The economic (e.g., buying water) and social (e.g., quarrels over maintenance of shared pit latrines) consequences of these action-focused coping mechanisms could limit their effectiveness or lead to pragmatic acceptance.

Although evidence suggests that women bear a greater responsibility for water collection than men in Usoma and many parts of Kenya (Bisung et al. 2015), buying water treatment products or water from bodaboda may affect the entire ‘household purse’ including the financial stability of men. This was evident when men expressed worries about the rising cost of water treatment products and construction materials for sanitation facilities. In future studies, it will be important to consider intra-household negotiations and bargaining to purchase water or water treatment products. Such negotiations between spouses may have profound implications for the psychosocial wellbeing of women. For example, although not reported in our study, studies have found instances of domestic abuse against women when they are unable to provide water to meet household needs (Stevenson et al. 2012). Such problems within relationships point to likely gender-based psychosocial stressors in places where women and girls are culturally obliged to collect water for household use (Bour 2004; Stevenson et al. 2012). In addition, although we identified lack of privacy associated with open defecation as a major concern, Sahoo et al. (2015) report sexual stressors such as rape and assault. We believe the social and environmental contexts do count considerably when it comes to stress manifestation.

Findings from this study suggest that psychosocial stress resulting from lack of access to water and adequate sanitation are tied to both daily struggles as well as (perceived) injustices and marginalization in water delivery. Drawing from embodiment theory, we demonstrate that distribution of stress is socially patterned, such that populations with fewer resources and poor living conditions are more likely to express psychosocial concerns. As noted by Marmot (2014), the fact that social conditions are distributed unequally results in unequal distributions of health, since the psychological experience of inequality has profound effects on the minds of individuals. Thus, steps must be taken to reduce inequalities through adequate and accelerated implementation of current policies and institutional and legal frameworks such as the Kenya Vision 2020, the Nation Water Services Strategy and the right to water and sanitation. More broadly, the successes, failures and lessons during the MDGs’ implementation could serve as a useful guide for achieving universal access as proposed in the SDGs. Although findings from this research are context specific and not intended to be generalized, they offer a foundation for future studies in a largely unexplored yet important area that has implications for the wellbeing of the millions that still lack access to safe water and adequate sanitation. Also, future quantitative studies that employ validated psychosocial tools from other subject areas may be important for understanding the prevalence of distress associated with lack of access to water and sanitation. These types of quantitative studies will also create opportunities for cross-cultural and inter-regional comparisons (Wutich & Ragsdale 2008).

REFERENCES


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