

A qualitative study on the interconnected nature of HIV, water, and family



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Introduction.



**9% of the world's population
(630 million people)**

lacks access to safe or affordable drinking water. (WHO, 2016)

Water.







Providing nearby access to safe drinking water is a primary public health concern and a frequent public health intervention throughout sub-Saharan Africa; access to water eliminates long gathering and transport time.

HIV/AIDS.

AIDS has claimed more than 34 million lives and continues to be a major global public health issue.

The most affected region in the world is sub-Saharan Africa with almost 70 % of total new HIV infections (1.4 million) worldwide and 25.8 million people currently living with HIV.

Thus...

Poor access to quality water and human immunodeficiency virus infection/acquired immunodeficiency syndrome (HIV/AIDS) are two significant global health issues.

HIV/AIDS + Water.

- Promotes healthy lifestyle and nutrition
- Clean water minimizes negative health impacts (e.g. waterborne diseases)
- Predictor of ART adherence and HIV-health related outcomes
- Less opportunities for infections
- Improves hygiene and sanitation practices
- Food security

Purpose.

This study used a phenomenological approach to expose experiences among water gatherers and their families after the implementation of a water intervention in the community. The expectation was that these personal experiences would provide a greater understanding of health and social changes experienced by family members after receiving access to safe water.

Methods.



Methods.

- 52 semi-structured interviews of households were conducted in Kitui, Kenya.
- Households included 2 heads of households and 2 children.

Interviews, records, codes, themes.

- Interviews were conducted and audio recorded.
- Audio records of each interview were transcribed, complete with additional contextual information.
- Interviews were hand-coded and later developed into a theme.
- Themes were analyzed and rechecked by the researcher.

Kitui, Kenya.



Interview Questions.

Q's depended on position in household, a few general Q's included:

- ✓ How have things in your house changed since the water project?
- ✓ Do you like the water project?
- ✓ Since the water project, has your relationship with any family members changed?
- ✓ Do you have the same amount of time with your family?
- ✓ Do you feel there are changes in your family because of the water project?
- ✓ Since the water project, has your relationship with any of your friends changed?

Results.



Participants.

- 52 community members (25 males and 27 females) were recruited.
- The average family size was 9 individuals.
- Ethnically, all participants were from the Kamba tribe.
- Participants lived within various socioeconomic statuses.
- Participants were broken up into three groups: head of household, primary water collector, and children.
 - 13 head of households were interviewed; the average age of the household head was 52.
 - 15 primary water gatherers were interviewed; 4 were children and 11 were female head of household; the average age was 36 years old.
 - 24 children were interviewed; the average age was 16.

Results.

HIV, family, and water



Before the water.

Prior to the water project, participants experienced:

- a myriad of adverse health effects from lack of nutrition, water, and poor hygiene;
- insufficient income;
- poor housing structures, and;
- lack of time to strengthen familial relationships.

Quotes.

“I like that water. And, I even lack words to explain... because as I said, previously I used to go to Athi River for 4 hours and come back with 25 liters of water. Imagine 25 liters of water with a family of 10 people. This... you wouldn't have water to bath, to clean the clothes, it was only for cooking and drinking. So, I can't fail to love and like this water. And everybody in this community is like me because we were all facing the same thing.” (Participant 12.4)

“ We went as a group at 4 am and at noon we would be back, but very tired. It is quite far. Going took about four hours, the process of collecting, then coming back...And coming back was the hardest because you were climbing- it was very hard. (Participant 4.3).

“I am a farmer and I also have some animals, so those are my jobs. I cannot do hard work because I am HIV positive.” (Participant 12.1)

“We had little opportunity to talk because I was busy- I had to cook, had to go to the farm, had to prepare... there was no time to talk and be together.” (Participant 13.2)

After the water.

Improved health, social and economic factors all contributed to participant's view of the water intervention as a key factor in having positive outcomes in the families, such as:

- Reduced exposure to opportunistic infections;
- Agricultural improvement and enhanced food security;
- Income-generating work;
- Better family and community relationships; and
- Improved quality of life with better housing structures and trees for shade.

Quotes.

“We have more time because the time taken to collect water is not more than an hour. So, me and my family, we are able to have more time together- discuss and agree on issues regarding the development of our family. I think the water has brought us more closer together as a family.” (Participant 3.1)

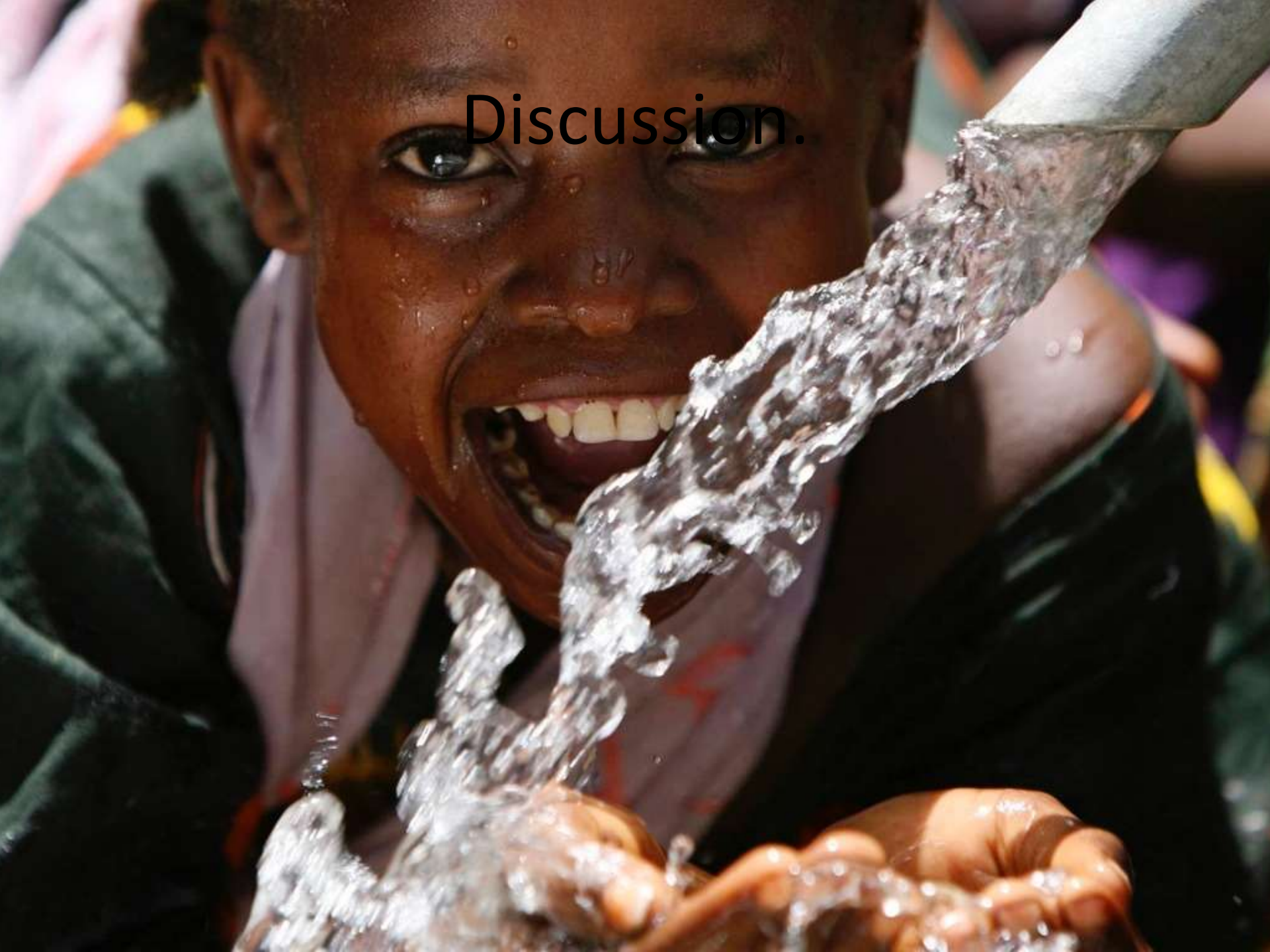
“Also with the cleanness, it’s quite important because in our counseling session, people with HIV/AIDS, it’s encouraged that we eat nutritious foods and also maintain hygiene to prevent infection and to build up our CD4 count.” (Participant 12.1)

“ Now on my job, I can plant vegetables and use these during the dry spell every year- and that has nutritious value for my family and also we sell some and get some income.” (Participant 12.1)

“I can now create awareness about people living with HIV/AIDS, it’s because water is nearby. ... now, I can go with my friends, create awareness, and encourage them- those who are living positively on good practices. Also, the people who are not maintaining cleanness, personal hygiene, when we meet in our groups for awareness, we emphasize on these factors. We tell them they don’t have a reason for being dirty because water is nearby and they usually change. So, that is advising each other as a group to show that we are together...”

(Participant 12.1)

Discussion.



Discussion.

This study provides evidence of the multiple paths through which nearby access to water improves the quality of life for people living with HIV.

Discussion.

Participant's experiences after the implementation of water interventions revealed health and social benefits from access to water, including:

- increased financial revenue and improved housing conditions,
- proper hygiene maintenance,
- improved nutrition from readily available food, and
- enhanced family and community relationships.

Discussion.

These experiences provide evidence of an increased need for access to potable water to improve the quality of life of HIV-infected individuals and HIV-affected families.

Conclusion.



The simple solution of providing communities with water alleviates many economic, health, and social issues in an HIV-affected population.

With access to water, population health can be improved, families and communities can come together for support, and HIV-prevention education can be disseminated.

Limitations.

- **Translation.**
- The translator later became the audio-tape translator.
- Population may not be representative of all Kenyans, Africans, or individuals living in low and middle income countries who experience water interventions.

Future direction.

- Focus on the additional benefits (e.g. decreased need for healthcare resources, greater independence in caring for self, etc.) from water interventions in order to provide insight on other public health-related issues.
- Gather additional data and applying it to quantify the results of this study.

Conclusion.

This research provides evidence of an increased need for access to quality water for communities throughout the world in order to positively contribute to social and health benefits in HIV/AIDS-affected families.



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Questions?

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