A Clendening Summer Fellowship Proposal

The Determinants of Health:
Heroin Addiction among Youth in Mombasa, Kenya

Zahra Shirazy
INTRODUCTION

Objective

One of the first lessons that I have learned in medical school is that a person’s health status is not just a consequence of the disruption of an individual’s biological construct, but that there can also be other factors involved:

- The individual’s behavior
- The social and economic environment
- The physical environment
- Access to quality health care
- Policies and interventions

The factors listed above are the constituents of the Determinants of Health Model, which is a theoretical construct used to describe the health of individuals or populations (Delzell, 2009). My goal for this project is to develop a comprehensive understanding of the factors that are associated with heroin addiction among youth in Mombasa, Kenya, by using the Determinants of Health Model as a guideline. I am originally from Mombasa, and this subject matter has me very concerned about the young people in my hometown and their future.

BACKGROUND

Heroin use in Mombasa

Heroin has been used as a street drug in Mombasa since the 1980s. The port in Mombasa is an ideal drug trafficking center both because of its geographical location, as well as rampant corruption among government officials. The drug consignment brought in is reported to come from Afghanistan (Ochami, 2009) and Pakistan (Allen, 2006), and is then distributed to international markets, including the USA. However, a substantial amount still finds its way to the increasing number of local consumers. According to a report in The Standard, a Kenyan newspaper, the current trend for infiltrating the drugs to the local market is by using young boys aged 12 to 20 years who package and distribute it to the clients (Mudi,
The heroin is packed in 1 g sachets and each is sold for Ksh.200, which is equivalent to $2.60. The boys then carry the drugs in school bags and peddle their merchandise at the nearby schools and at other locations.

The easy access to the heroin encourages its use, which leads to the increased problem of addiction and deaths due to overdosing. Furthermore because of the transition from “brown sugar”, which is consumed by inhalation, to “white crest”, a water soluble version of heroin that is injected intravenously, there are secondary problems that heroin addicts face: HIV and Hepatitis C (Beckerleg, 2006).

**Development of interest**

Although the heroin addiction problem has been going on for decades, I was not cognizant of the gravity of the situation until I came across an article in one of the Kenyan newspapers in 2005. What I read unsettled me: I was both saddened by the situation and ashamed by my oblivion. I believed then and still do now that an already burdened third world country having to deal with this kind of problem is senseless, because this is a problem that can be prevented. I felt compelled to follow up on what I had read, and so a few months later when I went to Kenya, I asked the Medical Director at the Coast General Public Hospital about the issue. She directed me to Dr. Mumba, a then attending physician at the hospital who happened to work with some of the rehabilitation centers. Prior to my departure from Kenya, Dr. Mumba took me to one of the inpatient rehabilitation centers located in the South Coast, and also took me to one of the outpatient community based centers that was located within Mombasa. The visits to these centers afforded me the opportunity to witness that there was indeed a problem and that something needed to be done about it.

I wanted to contribute somehow to help combat this problem and I thought I could do so by trying to mobilize any kind of resources that would be beneficial from the US to Kenya. I first thought of the
research community and since I was living in Philadelphia at the time, I set up a meeting with Dr. David Metzger, a researcher at the University of Pennsylvania department of psychiatry, and his research interests were in HIV prevention interventions among drug users. He asked me to get more details about what kind of assistance is needed in Kenya, but I was unable to re-establish communication with Dr. Mumba, and then I moved to Wichita to continue my education. I therefore wasn’t able to do anything then. However, with the Clendening fellowship sponsorship, I will have the opportunity to go back to Kenya and gather information that I hope can be used to initiate larger scale projects that would help deescalate this growing drug problem.

**DESCRIPTION OF METHODS**

*Outreach worker training and volunteering*

I would like to take a hands-on approach to my project and thus my plan is to work with the Teens Watch Center, a drug rehabilitation center for youth. In addition to rehabilitation services the center runs an outreach program, which entails outreach workers going into the community to educate the youth about substance abuse and its relation to HIV. Part of my project involves training and volunteering as an outreach worker. As an outreach worker I will be able go to venues such as schools, churches and mosques and offer “health talks”, which are informational sessions about substance abuse, HIV and STDs, and behavioral modifications. The volunteering sessions will not just be a way for me to offer my services to the community, but will also create an avenue through which I can recruit community members for my interviews.

*Shadow a psychiatrist*

I will also be spending some time with Dr. Mwangome, a psychiatrist who treats addicts, to learn about the medical treatment that is implemented. I will be observing him in both inpatient and outpatient settings.
Interviews

I have composed a list of questions based on the Determinants of Health Model that I will use to conduct interviews with. I intend to interview the residents at the Teens Watch Center, the program coordinator Mr. Cosmas Maina, Dr. Mwangome, and members of the community. Demographic information will be collected for the drug users only. The interviews will be recorded. Interviews will be conducted in English since English is the official language. My native language is Swahili, which is the national language, and I will be able to translate the questions in Swahili should the need arise. The exact number of drug users to be interviewed will be determined when I am at the Teens Watch Center. The subjects’ willingness to participate as well as their parents consenting will determine the sample size. Also the interview is lengthy and this might keep the sample size small. Each interview is expected to last about thirty minutes. A pretest will be conducted to ensure that the interview questions are valid and that the allocated time is sufficient. See appendix to view parental consent form and interview questions.

Research Permit

I have tried to call the Ministry of Health in Kenya using the number listed on their website to inquire whether I would need a special permit in order to conduct my project, but have not been able to get through after calling several times. I also tried calling the Kenyan Embassy in Washington DC, but their office seems to be constantly closed even when I call during the working hours the website and the automated voice recording conveyed. From my experience living in Kenya, dealing with government related matters is done best in person.
Timeline

<table>
<thead>
<tr>
<th>Date (Year: 2010)</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 17th</td>
<td>Traveling from Wichita to Mombasa</td>
</tr>
<tr>
<td>May 24th – June 4th</td>
<td>Outreach worker training</td>
</tr>
<tr>
<td>June 7th – July 23rd</td>
<td>-Volunteer as an outreach worker and conduct interviews: 4 days/week</td>
</tr>
<tr>
<td></td>
<td>-Shadow Psychiatrist: 1 day/week</td>
</tr>
<tr>
<td>July 30th</td>
<td>Travelling from Mombasa to Wichita</td>
</tr>
</tbody>
</table>

Data analysis

A qualitative analysis of the information gathered from the interviews, as well as notes taken during each outreach and shadowing session will be conducted to elicit the factors that influence the development of heroin addiction among youth in Mombasa. Each factor will be itemized based on the categories listed by the Determinants of Health Model. A distinction will also be made between factors that have a positive influence versus those that have a negative influence. Data will be kept in a safe place and only I and individuals pertinent to the analysis of the records will have access to the data.

LOGISTICS

Travel advisory issue

I have spoken to Ms. Judith Reagan about going to Kenya, which is one of the countries that KUMC students cannot go to because it is on the travel advisory list, and she stated that I am exempted from the rule because I am going home. Should I be selected as a Fellow I will be meeting with Ms. Judith to fill out the required paperwork.

Access

I will be flying from Wichita, KS to Nairobi then to Mombasa. In Mombasa, public transportation is easily accessible to commute within the town. During the first two weeks I will be staying at the rehabilitation center which is located in Diani, just outside Mombasa. After the training I will be staying with my family.
in Mombasa since the sites I will be volunteering at and the Psychiatrist are in Mombasa. I will be commuting to Diani using public transportation during the days interviews are scheduled.

Contacts

Zahra Shirazy
SOM2013
Phone: (316) 992-9392
Email: zshirazy@kumc.edu

Dr. C. M. Mwangome
Psychiatrist
Coast Province General Hospital
Phone: 011 254 722304804
Email: cmmwangome@gmail.com

Mr. Cosmas Maina
Program Coordinator
Teens Watch Center
Phone: 011 254 722927334, 011 254721977481
Email: teenwatch2002@yahoo.com

BUDGET

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plane ticket : Wichita-Nairobi-Mombasa(Round trip)</td>
<td>$1700</td>
</tr>
<tr>
<td>Visa (because I use my American passport)</td>
<td>$25</td>
</tr>
<tr>
<td>Local public transportation</td>
<td>$25</td>
</tr>
<tr>
<td>Accommodation at the Teen Center for 2 weeks</td>
<td>$60</td>
</tr>
<tr>
<td>Sim Cards for cell phone for 8 weeks</td>
<td>$30</td>
</tr>
<tr>
<td>Internet connection for laptop for 8 weeks</td>
<td>$60</td>
</tr>
<tr>
<td>Printing Cost for demographic questionnaire and parental consent</td>
<td>$30</td>
</tr>
<tr>
<td>Books to donate to center</td>
<td>$70</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$2000</strong></td>
</tr>
</tbody>
</table>

I’ll be living with my family after the training and therefore food and housing will be taken care of. If needed, any expenditure beyond the $2000 will be supplemented by what I have saved from my Financial Aid.
BIBLIOGRAPHY


Delzell, J. (2009). The Determinants of Health. Class Lecture. University of Kansas School of Medicine, Kansas City, KS.


APPENDIX I

Parental Consent

I give my consent for my child __________________ to be interviewed for approximately 30 minutes for a project titled: “The Determinants of Health: Heroin Addiction among Youth in Mombasa”, which is being conducted by Zahra Shirazy, a first year medical student from the University of Kansas Medical Center. I understand that this participation is entirely voluntary; I or my child can withdraw consent at any time without penalty and have the information, to the extent that it can be identified as my child's, returned to me, removed from the records, or destroyed.

1. The reason for the project is to understand what factors influence the occurrence of heroin addiction among youth in Mombasa.
2. The interview will involve questions about my child’s behavior, social and economic environment, and access to health care
3. No physical discomforts foreseen, though questions may be emotionally taxing
4. No risks are foreseen
5. The results of this participation will be confidential, and will not be released in any individually identifiable form without the prior consent of myself and my child
6. The interviewer will answer any further questions about the project, now or during the course of the project, and can be reached by phone at (a Kenyan cell phone number will be provided)

Please sign both copies of this form. Keep one and return the other to the investigators.

_________________________________________  _______________________________________
Signature of interviewer                      Signature of Parent/Guardian

_________________________________________
Date
APPENDIX II

Demographic questionnaire (Please circle the appropriate choice)

What is your age?

What is your gender?

Female          Male

Are you currently in school?

Yes             No

If you are currently in school what level are you in?

Primary School  Secondary School  College/University

If you are currently NOT in school what level did you reach?

Primary school  Secondary School  College/University

Do you or did you go to a private or public school?

Private          Public
Appendix III

Interview questions for the drug users

The individual’s characteristics and behaviors.

Are you here at the rehabilitation center because you want to or were you forced to be here?
What age did you start using?
How long have you been using?
Why did you start using heroin?
Are you still using heroin?
Do you use heroin to self medicate?
Do you use other drugs other than heroin?
Do you drink alcohol?
Do you have any medical problems?
Do you have any psychological problems?

The social and economic environment

Do any members of your family use heroin?
Do any of your friends use heroin?
Where do you get the money to buy the heroin from?
What is your religion and do you follow your religions teachings?

The physical environment

Do you have any concerns (safety, pollution, etc) about where you live?
Do you have any concerns (safety, pollution, etc) about where you go to school?

Access to quality health care

Can your parents afford for you to see a doctor whenever you have a medical problem?
Is it easy or difficult for you to get to the rehabilitation center?

Additional Comments
Appendix IV

**Interview questions for psychiatrist, rehabilitation center administrator, and members of the community.**

**Access to quality health care**

Are there enough resources to cater to those seeking treatment?

**Policies and interventions**

What policies and or interventions have been implemented by:
The healthcare providers?
The government?
The schools?
The community?

**Additional Comments**