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## Student Pharmacists and Street Children: A Mutually Beneficial Relationship

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## Student Pharmacists and Street Children: A Mutually Beneficial Relationship

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# STUDENT PHARMACISTS AND STREET CHILDREN:

## A Mutually Beneficial Relationship

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### ABSTRACT

The Tumaini Children's Drop-In Center is a daytime drop-in center for the street children of Eldoret, Kenya. It is part of a partnership between the Purdue University College of Pharmacy, the Academic Model Providing Access to Healthcare program, Eldoret community members, and numerous individuals in both Kenya and the US. Through the efforts of local staff and Purdue student pharmacists, who work at the local hospital on an eight-week clinical rotation, the center has helped a population of nearly 400 local street children by providing a safe haven from life on the streets. Purdue student pharmacists aid the center by applying for grants to fund service-learning projects. These projects, run by the students, help provide the children with basic necessities in addition to screening and education sessions regarding local health issues. In turn, the street children aid the students by providing a break from the stress of the hospital and by providing a broader view of what health care should look like.

### KEYWORDS

Tumaini, pharmacy, street children, Eldoret, Kenya

### BACKGROUND

A street child as defined by the United Nations (UN) is:

any boy or girl . . . for whom the street, in the widest sense of the word, has become his or her habitual abode and/or source of livelihood, and who is inadequately protected, supervised, or directed by responsible adults. (Panter-Brick, 2002, p. 149)

These children take to the street as a result of being born into impoverished or abusive families, as well as families broken due to death or divorce (UNODC, 2005). The city of Eldoret, one of Kenya's fastest-growing cities, is home to approximately 3,000 of these children. They are forced to drink unsanitary water, eat dirty food, and sleep outside without the protection of mosquito nets.

As such, they are at greater risk for developing a host of infectious diseases including pneumonia, tuberculosis, malaria, and skin and gastrointestinal infections (Densley & Joss, 2000; UNODC, 2005; Webb, 1998). Multiple sexual partners, little to no education on proper condom use, and frequent engagement in sexual activities while under the effects of drugs or alcohol poses increased risk of contracting sexually transmitted diseases such as HIV (Densley & Joss, 2000; UNODC, 2005; Webb, 1998). Low income, little knowledge of the health care system, and social discrimination often limits access to treatment. As a whole, these children are in dire need of psychosocial support, access to basic health care, education, and simple shelter. When asked about their hopes for the future, the primary aspiration of these children was the opportunity to learn a profession and become self-sustainable (UNODC, 2005).

It was from the needs of these children that the Tumaini Children's Center (TCC) was realized. Tumaini is the Swahili word for "hope." The need for a center to provide just that for the street children of Eldoret was first envisioned by local volunteers, as well as staff members working with the Academic Model Providing Access to Healthcare (AMPATH) partnership (AMPATH, n.d.; Purdue University, n.d.). AMPATH is a collaboration between Moi University, Moi Teaching and Referral Hospital, and a consortium of North American academic health centers led by Indiana University School of Medicine. The partnership was developed to address the epidemic of HIV/AIDS, in addition to other chronic diseases common across western Kenya (Inui et al., 2007). In 2003, the Purdue University College of Pharmacy (PUCOP) joined the partnership and established an eight-week clinical rotation in Eldoret where student pharmacists assist through the provision of pharmaceutical services (Pastakia, Karwa, & Maina, 2013; Pastakia, Schellhase, & Jakait, 2009). For many of the student pharmacists, this clinical rotation is their first experience outside of the United States, as well as their first time living in a culture where such poverty is commonplace. Thus, upon seeing the needs of the street children, the faculty and students from PUCOP and the AMPATH partnership, along with local experts, developed the TCC. Opened in January of 2010, the center currently accommodates 50 to 80 girls and boys between the ages of 6 and 18 on a daily basis, and it provides a place where street children can escape the street environment and simply be children.

## OUTREACH AND SETUP

The mission statement for the TCC says it "is dedicated to empowering and serving street children in Eldoret, Kenya" (Tumaini Center, n.d.). The TCC strives to prevent the next generation from taking to the street through the program's outreach. Their staff, along with a variety of health care students and volunteers, continually takes to the streets and residences surrounding Eldoret to meet the children in their own environment. Through this approach, the children build trust and rapport with the staff, making them more likely to come to the center.

Once at the center, the children find a safe environment where they can rest, wash, eat, play, and get away from street life. Given the independent nature of many of the children, much of the setup and rules of the center were decided upon by the children themselves. The children were allowed to establish regulations such as no fighting, no abusing other children, and no using illicit drugs while at the center. In addition, the staff and children

have set up a small vegetable farm on the grounds of the center. This farm not only helps to feed the children breakfast, lunch, and an afternoon snack, but also provides education about basic farming. The children also constructed many of the fences, signs, and storage sheds found around the center from materials they gathered. Activities like this were developed through the student pharmacists' service-learning projects. Student pharmacists received funding from the Purdue University Office of Engagement service-learning grant program for resources and the children's skill development. We collected reflection data from the students and street children involved in the programs. We also collected involvement data from the children.

## IMPROVING HEALTH AND HEALTH CARE EDUCATION

Student pharmacists have been involved with TCC since its opening in 2010. In addition to applying for funding, PUCOP student pharmacists regularly participate in health care-related service-learning projects at the center. Students established clinics that screen for common diseases and provide basic treatments for these illnesses. Students at a recent clinic provided valuable information about diabetes and then offered to take blood sugar readings. Approximately 20 children were screened, and none had high blood glucose levels. The students also assisted with already-existing screening programs, such as one established to monitor tuberculosis (a severe yet common condition). This program is frequently conducted in the streets where the children work and live. Student pharmacists also provide education about proper wound care, deworming, vitamin supplementation, and condom use to the children. Projects have also been able to establish clean water sources for the children to wash their clothes and learn the importance of proper hygiene.

As part of the eight-week rotation, student pharmacists lead regular classroom discussions on substance abuse, sexually transmitted diseases, and teen pregnancy. Children are supported and encouraged to make proper choices when faced with difficult decisions affecting their health and wellbeing. For example, a group of girls was each given a set of cards. Each card has a boy's statement pressuring the girls into doing something with which they are not comfortable. On the back of each card, the girls come up with strong, healthy replies to say to the boy, helping them prepare for this situation. As a result, these girls are empowered to take part in family planning and avoid unwanted pregnancies. In another session, a group of boys was taken into a room with large sheets of poster paper. At the top of each paper were words like alcohol,

marijuana, or tobacco. The boys then created lists of all the reasons to use each substance and all the reasons not to use them. With the help of the student pharmacists, they addressed the pros and the cons and came up with conclusions. These classroom discussions equip the children to face real issues in their everyday lives.

The sessions also help children adjust to school life. Additional classroom periods held by the center's volunteers teach the children basics in reading, writing, and arithmetic, as well as how to work with classmates and how to answer and pose questions to a teacher. These lessons have helped 12 children, who are currently enrolled in school full time through sponsorship support from the center and its donors.

Over the course of the last year, a new health care initiative was implemented to serve an area known as the Munyaka Slum. Professionals and educators go to the community screening for chronic diseases, rather than waiting for the community members to seek care. Student pharmacists will monitor disease progression in these patients and provide counseling services while on their rotation in Eldoret.

### MERGING EDUCATION AND ENJOYMENT

Not everything at the center is about schoolwork and studying. Much of the center is about simply letting kids be kids. Children play soccer, dodgeball, or other enjoyable activities. After the student pharmacists complete their clinical rotation requirements at the hospital, they are encouraged to take part in these games. This builds relationships with the children and allows students to relax after working under stressful conditions. Student pharmacists and faculty have also held video game parties with the kids at a local restaurant. These parties are open to the public and allow the people of Eldoret to see these children in an environment away from the street.

Students often take important health lessons learned in the classroom and incorporate them into games. One such game teaches children about the dangers of sniffing glue. It is a commonly abused substance bought and sold among the street children in Eldoret. The game is like Old Maid, where the children match cards together to make pairs. Each pair of cards has a fact about the dangers of sniffing glue. Pairs are made by drawing cards from other players' hands, and the person left holding the glue card, which does not have a match, is the loser. Another in the form of a relay race incorporates the importance of washing food before eating it. In this race,

children must wash a soccer ball, or "fruit," and then pass it through their legs or above their head to another child without it touching the ground. If the ball touches the ground or gets dirty, it has to be passed back and washed again.

### LESSONS IN ECONOMICS

The focus of the TCC is to get children off the streets. For many of these children, that means gaining employment or starting a business of their own. In order to accomplish this, many endeavors at the center focus on teaching economic lessons such as saving earnings and then spending them appropriately. Student pharmacists are encouraged to donate just about everything they bring, whether it be their clothes, shoes, toiletries, books, or even candies; these items are then placed in a "store." The street children can buy items from this store with points they accumulate by participating in activities at the center. Attendance or helping with daily activities are two ways to earn points. Fighting or coming to the center while under the influence of glue can cost them points. The children can save points and buy a pair of soccer cleats, or they can splurge and spend a few points on gum or candy. The points are theirs to spend as they please. If the older children find a place to stay and they attend the center, assist with activities, or help with the younger children, their points can go toward paying off their rent with help from the TCC.

The center purchased two sewing machines, allowing many of the girls to learn valuable trades such as sewing and beadwork. These crafts are brought back to the US by student pharmacists and sold at various places, such as on the Purdue campus. An example is a small backpack pin with a picture of a mortar and pestle. The sales allow the center to sponsor the schooling of more children. These girls also make bracelets, which display the word "diabetes." The bracelets are then used by the student pharmacists when working at local diabetes clinics to serve as medical alert bracelets for patients. Most importantly, sewing gets girls off the streets and into a skilled trade. The older girls learn basic business and finance as part of the TCC income-generating activities program.

### LASTING IMPACT AND PERSONAL REFLECTIONS

Since the center opened its doors, more than 2,000 of Eldoret's street children have participated in activities sponsored by the center, and more than 100 student pharmacists and faculty have been involved with its

projects and health screenings. Over 200 children were enrolled in TCC case management, which follows and supports children through outreach, center programs, and their exit from the street. Follow-up is done at school or through home visits. This data was collected from 2010 to 2014 by tracking attendance at outreach events and through the programs. The participants fill out enrollment and environmental assessment forms upon enrolling in case management. Since 2015, the TCC changed their model to do more targeted outreach, and there are currently 20 street children aged 13 to 18 enrolled at the transition center. In addition, the center partnered with the Area Advisory Council, the Uasin Gishu Children Services Forum, Eldoret Consortium of Organizations Working with Street Children and Youth, and Discover the World. These organizations provide the TCC with a stage and allow for communication about the center’s struggles and successes.

Reflections from TCC staff and children on the program’s impact are found in Table 1. In 2012, 13 children were reintegrated to home, 3 babies were rescued from the streets and placed in children homes, and 54 follow-ups were done for children already placed at homes through TCC programs. Further, 16 youths earned a living by making beaded items for sale, 3 youths were supported

with vocational skills like catering and tailoring, and 7 youths were assisted in attaining their national identification card and in becoming eligible for employment.

In addition to the impact on children, there was an impact on the student pharmacists involved in these service-learning projects and center activities. Table 1 contains these personal reflections from students. The role of the pharmacist in global health and demand for international training experiences within health care curricula continues to grow (Drain et al., 2007; Fincham, 2006; Haines, 2007). Opportunities like TCC help provide students with learning experiences that showcase their professional abilities, coupled with compassion and kindness.

The eight weeks I spent in Kenya were transformative. I learned about resourcefulness and compassion. I learned about perspective and overcoming adversity. I would say I became more human. It was challenging at times not being able to speak the language, and it was difficult to process my experiences—many of which forced me to realize how ungrateful I can be, but the TCC provided opportunities to release stress by playing soccer and interacting with the children. I would urge future students to be creative and implement new programs at the TCC during their time in Kenya, as the children are always

**Table 1.** Personal reflections.

	Reflective Statements
<b>Tumaini Children’s Drop-In Center</b>	“During their time in Kenya, it is easy to see the transformation that the students undergo. Although there are many frustrations in working in this underserved population, their achievements are that much more rewarding.”
<b>Tumaini Children</b>	“I was a destitute, sad, and lonely boy after the death of my mother and with no help from my relatives; I ended up in Eldoret streets. I was introduced to Tumaini by my friends and after 6 months I was re-integrated back home and enrolled in school. . . . with Tumaini family on my side, I had nothing to be sad about anymore as I had something to live for. Being the leading pupil in my class, I promised to give the best result in my KCPE. I am now waiting for my results and looking forward to joining a national high school.”
<b>Purdue Student Pharmacists</b>	<p>“Tumaini is the hope for the street kids to break away from poverty in the future. I became more appreciative of being born in a family which can afford food and education since I worked with the street kids.”</p> <p>“Working with the street children is incredibly rewarding. These children are viewed as negative members of society and have no viable avenue to rejoin society. The Tumaini Children’s Drop-In center is opening that door to give the opportunity to bring these street children off the street and back into the population as productive, positive members.”</p> <p>“Working at the drop-in center helps you to realize that health care is more than just dispensing medications or taking lab values. Health care is about truly caring for people and their wellbeing. The staff at the center may not all have advanced degrees, but by working there with the kids, you can tell this is a concept they all understand very well.”</p>

eager to learn new things. This is the first time I truly found the value in volunteering. I hope I have an opportunity to work in this amazing community, or others like it, in the future.

## CONCLUSION

The Tumaini Center is a place where street children go to simply be kids. In the city of Eldoret, street children are becoming so common that people accept them as the norm. Once someone might ask, “What is this kid doing on the street?” or, “Why is this child not in school?” Now they simply walk by. People no longer see them as children; they see them as a nuisance, as vermin. On the streets, they are forced to be aggressive; this is how they survive. If a child steals your phone, he eats for a week. However, the TCC has shown that if you take these children out of that environment, you find they are simply kids. You can play soccer with them. You can educate them. You can befriend them.

The PUCOP service-learning projects, including the classroom sessions, educational games, screening clinics, and income-generating activities, have left a lasting impact on the lives of the street children in Eldoret, as well as the staff, students, and anyone else visiting the center with a willingness to lend a hand.

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