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SPECIAL ARTICLE

A multidisciplinary approach to improving women's health in semi-urban Ecuador

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ABSTRACT

Objective: To examine women's reasons for seeking care at The Quito Project (TQP), a student-led organization that aims to improve the health, education, and well-being of a semi-urban community in Quito, Ecuador, and to explore the need for additional preventative interventions. *Methods:* An oral survey was administered to 86 adult patients in 2008. We also completed a chart review to evaluate patient demographics and medical conditions. *Results:* Sixty-three (73.3%) survey respondents were female. Nearly three-quarters of the women reported an income below the minimum wage; 60% reported that the cost of medical care posed a burden. Fifty-two percent sought care at TQP because the services were free. Additionally, 77% of women reported going to the doctor only when ill and did not access preventative services. *Conclusions:* By offering medical, dental, and tutoring services, along with preventative health workshops, TQP addresses established barriers to achieving adequate women's health. Survey results have reinforced TQP's focus on prevention.

1. Introduction

The Quito Project (TQP) is a student-led multidisciplinary organization at the University of Michigan, USA. Founded in 2004 by University of Michigan medical students (BV and PI), TQP aims to improve the health, education, and overall well-being of the residents of San Martin, a semi-urban community outside of Quito, Ecuador. The organization's efforts are based on sustainability and integration within the local community. TQP also strives to demonstrate the fundamentals of global development and social change to student volunteers. Finally, TQP seeks to develop scalable and economically feasible paradigms that can serve as models for similar interventions in other resource-poor communities.

TQP emerged because many unmet needs had been observed in the target community, especially regarding basic health care and education. In Ecuador, 63% of the population lives below the poverty line, with the portion growing to nearly 100% in areas outside major cities [1]. In terms of health care, only 23% of citizens have health insurance, which makes health care prohibitively expensive for many [2]. Only 8% of Ecuadorians report receiving preventative healthcare [3]. Poverty and lack of access to health care affect women disproportionately [4]. The present paper describes how TQP has worked to mitigate the impact of poverty and limited access to health care among women. Data from TQP's 2008 clinic survey provide a description of the use of specific services by women.

In 2005, Schoenfeld and Juarbe [4] identified 4 major reasons for suboptimal women's health care in rural Ecuador. First, limited monetary resources and the fear that missing work will lead to even less money prevents women from seeking health care or furthering their education. Since the majority of household income is used for food, there is often little money to pay for health care [5]. Secondly, women's health is affected by domestic violence and sexual abuse, which also increase the prevalence of physical and mental illness among women. As a result of abuse, many women live alone, without the economic support of a partner. Women also have high rates of sexually transmitted infections, including HIV, often as a direct result of infidelity by their partners. Third, the significant physical workload of household chores as well as paid labor results in health concerns such as chronic back, leg, and foot pain. Finally, the cultural value of self-sacrifice among women presents an additional barrier to seeking care; limited resources are used instead to provide food and basic education to their children and family [4].

In 1998, La Ley de Maternidad Gratuita ("The Free Maternity Care Law" or TFMCL) was established, which states that every woman of childbearing age is entitled to free services including family planning, contraception, prenatal care, medical care during the delivery of the child, and care for the child until the age of 5 years [6]. As a result, 82.1% of Ecuadorean women (86% of urban women and 74.9% of rural women) do access healthcare services at some point during pregnancy [2].

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Although TFMCL has improved healthcare access, women still face significant barriers, as outlined by Schoenfeld and Juarbe [4]. Additional obstacles include knowledge of and physical access to the government supported resources, omission of critical preventative health services such as Pap smears and mammograms, and a failure to address the need to educate women about preventative health. Finally, even with access to free prenatal care, Ecuadorian women with unplanned pregnancies are much less likely to seek prenatal care than women with planned pregnancies, highlighting the need for family planning education and access to contraception [7].

TQP's primary mission is to improve the health and education of the citizens of San Martin, especially the community's women. The aim of the present study was to review the results of survey research addressing specific health concerns among women seeking care at TQP and to describe how services meet identified region-specific needs. The following describes TQP's efforts to date.

2. Materials and methods

TQP is a collaborative effort among students and faculty of several University of Michigan schools and colleges (Medicine, Education, Business, Dentistry, Social Work, Public Health, Nursing, and Pharmacy); it is also supported by an Ecuadorian non-governmental organization, La Fundación San Martin. Since 2004, TQP has provided free medical care and other services.

The clinic offers patient consultation, physical examination, and preventative health education. A supply of commonly used medications is dispensed without charge. Specialty services include internal medicine, family medicine, pediatrics, and obstetrics/gynecology. Women's health services include pelvic examination, Pap smears, basic prenatal care, family planning education and contraception, and referral to government clinics for additional care needs. TQP also operates a free dental clinic that offers basic services. Preventative education is implemented via patient consultations and handouts written in elementary Spanish. Additionally, the clinic's providers educate patients about their rights, such as TFMCL, and other avenues to obtain free or low-cost medical services.

In collaboration with TQP clinic, public health and social work student volunteers hold workshops geared toward women. Topics include mental health, family planning, parenting, nutrition, safe relationships, and disease-specific areas such as diabetes. TQP has created a Health Resource Guide (HRG) that lists existing resources including specialty services, such as vision screening, radiologic imaging, and domestic abuse counseling and shelters. The HRG includes details such as cost, directions using public transportation, hours of operation, and also features visual symbols with a legend for patients unable to read. In response to lack of local psychological services, TQP employs social workers for one-on-one consultation with survivors of domestic abuse and sexual assault.

Recognizing that child well-being is integral to women's health, TQP offers free tutoring. Student volunteers help teach children to pass their national exams to successfully advance grade levels. This allows families to avoid the costly event of a child repeating a grade. In fact, the costs are so prohibitive that families may have the child drop out of school instead of paying to repeat. TQP also provides children with a nutritious breakfast, vitamins, and afternoon extracurricular activities 5 days a week. In 2008, TQP had a total operating project budget of US $34 000. Funding was secured through grants (private foundation and University), private donations, and fundraising. Volunteers covered their own transportation, housing, and other costs.

A brief oral survey was performed during the summer of 2008 in an effort to evaluate how patients used the services offered by TQP. We examined the subset of survey results from female patients to examine the need for specific programs that address women's health and education. Randomly selected, convenient samples of adult patients were surveyed after they had received care at TQP clinic. One investigator (ARY) administered all surveys. A total of 86 patients provided responses to the survey. We also completed a retrospective chart review of patients to record demographics, medical conditions, and reasons for seeking care. The study was approved by the Institutional Review Board of the University of Michigan Healthcare System.

3. Results

Among the survey respondents, 63 (73.3%) were women. This proportion closely reflects the overall population of patients seeking care at the clinic. Thirty-seven (58.7%) women reported having 1–3 children; 17 (27.0%) had 4–7 children. Twenty-six (41.3%) women reported being employed, with agriculture, sales, housekeeping, and childcare reported as the most common jobs. Among the 26 employed women, 18 (69.2%) stated that their work was not stable. A total of 46 (73.0%) women reported a weekly household income below the national minimum wage (US $186 per month) [8]. In addition, 12.7% of the respondents stated that they could not read or write. Most of the women lived in the immediate neighborhood, with only 19 (30.2%) traveling more than 10 minutes to reach the clinic. About a third of the women reported receiving care at the clinic in previous years.

Among the women completing the survey, 41 (65.1%) reported seeking care only in case of sickness or emergency. Thirty (47.6%) of the respondents reported never having had a medical check-up. In terms of preventative screening, 50.8% of women had not had a Pap smear in the past year, and 17.5% had never received this test. The majority of women (84.1%) reported delivering their children in medical settings (versus home).

Nearly all respondents (93.7%) did not have medical insurance and 60.3% noted that paying for health care and medications posed a financial burden. More than half responded that their primary reason for seeking care at the clinic was because the services and medications are without cost.

We also completed a review of the medical records of patients seen in the clinic during a one-week period during December 2007. The most common reasons for seeking care among all patients ($n = 137$) included upper respiratory (37.2%), gastrointestinal (28.5%), musculoskeletal (27.0%), headache (13.1%), and general check-up (14.6%). Also common were dermatologic (10.9%) and ophthalmologic (10.2%) concerns. Patients often had more than one complaint during their visit. Twenty-three women sought care for obstetric or gynecologic matters. Among those 23, the most common complaints were painful or frequent urination, pelvic pain, vaginal discharge, menstrual cramps, prenatal care, hot flashes, and dyspareunia.

4. Discussion

The primary aim of the survey was to gauge the need for preventative healthcare services in addition to the urgent care services already provided at TQP. We based this goal on previous findings that indicate that only 30%–60% of poor communities in Ecuador receive any form of routine health care, indicating a need for education programs related to health maintenance [9]. The survey results suggest that women in the target community are accessing care only for acute illness or emergency, with little knowledge of preventative care.

In addition, survey results show that inadequate finances, due to unemployment and/or low wages, represent a vital barrier to achieving adequate women's health in the target community. For many of the patients seen at TQP clinic, the modest US $1.50 fee charged at the nearby government clinic appeared to be a significant economic burden. These findings echo the earlier observations of Schoenfeld and Juarbe [4]. Although the survey results are limited both by small sample size and possible ascertainment bias, we believe that the information gathered provides useful insight regarding TQP's overall mission in San Martin.

Our review of the medical records indicates that many of the women seeking care at TQP presented with women's health concerns that are not addressed by TFMCL. Less than half of the women surveyed reported that they had received a Pap smear during the past year (a service not covered under TFMCL); 17% had never had the test. In addition to lack of financial resources, availability and accessibility of services, a lack of comfort, privacy, and courtesy of providers are recognized barriers to routine gynecologic care [10]. Knowledge of these concerns prompted TQP staff to provide counseling and information on why, when, and where to obtain the Pap test. In addition, the actual exam is performed in a private and comfortable manner.

Prenatal care services in Ecuador are inadequate, with a 35% prevalence of insufficient prenatal care for pregnant women living in poverty [11]. According to Paredes et al. [12], the most prevalent barriers to prenatal care in Ecuador are economic difficulties, the responsibility of caring for an older child, transportation, long waiting times, and a lack of knowledge of the importance of prenatal care. Many women seen at TQP are not aware of their right to prenatal care through TFMCL. In addition to disbursing free prenatal vitamins, providing Doppler ultrasound, and conducting routine prenatal check-ups, TQP clinic informs women of their rights through TFMCL and connects them to additional community resources. The clinic's family planning workshops further emphasize the importance of seeking adequate prenatal care.

Another concern among women is the increased physical workload and its associated medical complications. Women are generally in charge of both agricultural and domestic chores in Ecuador. These tasks often require long periods of heavy lifting, walking, and overuse of the hands, which results in chronic muscle and joint pain as well as repetitive use injuries. This was evident among our clinic population with 12.7% of women presenting with musculoskeletal complaints. To address chronic pain, TQP has also focused on prevention. Patients are taught about osteoarthritis, osteoporosis, and back pain and instructed about how to reduce the progression of these conditions. Studies suggest that ergonomic education provides positive effects on women with musculoskeletal pain [13]. Educational efforts include instruction about back exercises, yoga, and ergonomics. Splints, wrist and knee braces, and shoe insoles are distributed to patients with overuse injuries. Along with analgesics, calcium and vitamin D supplements are provided to prevent bone loss.

Access to dental care is a problem throughout South America. Many dentists cluster in urban areas, leaving the millions of semi-urban and rural residents without adequate dental care [14]. Located at the intersection of the urban and rural areas of Quito, TQP dental clinic provides urgent dental care. In 2008, 526 patients received dental care through TQP. Volunteers teach proper techniques for oral hygiene and distribute toothbrushes and toothpaste.

Finally, the culture of self-sacrifice among women presents another significant barrier to seeking health care since food and education for their children are generally the priority. Compounding the task of child-rearing is the low income of many households. To address these issues, TQP offers tutoring services and meals for children. The clinic also provides medical care to children, including the annual exams required to attend schools.

Through a comprehensive, multidisciplinary approach, TQP has implemented the above programs to improve overall health in this community. As TQP grows, we will continue working toward sustainability by building meaningful partnerships with existing government and private agencies in the community. In doing so, we hope to provide a useful paradigm that can be implemented in other resource-poor communities. We also aim to interface with the local public health system to avoid duplication of existing services. During the next several years, we will continue to assess the results of our interventions using surveys and other measures.

5. Conflict of interest

All authors report no conflicts related to this work.

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