

Teaching and Learning from the Community: The Development of a Student-Run Outreach Program

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ABSTRACT

For a group of first-year students at the University of Maryland School of Medicine, the statistics and trends indicative of the widening gap between the medical establishment and the Baltimore city population propelled them to create an outreach program, Baltimore Community Medical Outreach (BCMO). The purpose of the program is to empower city residents with the knowledge and consciousness required to establish contact with a health care provider as an initial step in addressing their medical needs. In its first year of operation, the group delivered a series of workshops at a local village center on a range of topics including HIV/AIDS, hepatitis, sexually transmitted diseases (STDs), hypertension, diabetes, and nutrition. The process of information dissemination, coupled with the audience's sharing of experiences, generated a collective knowledge that the audience could subsequently use to surmount the obstacles to patient-provider contact. The medical students learned many things in turn, including the transient holding power of medical advice, the need to tailor health guidelines to a specific population, and the many factors, such as family history of a disease, that drive a patient to action.

INTRODUCTION

Effective delivery of medical care is a process involving the intersection of two forces: one, adequate provision of resources and services by federal and private agencies, and two, patient initiative in utilizing such resources and services. Even if health care services are readily available, several forces may prevent a patient from accessing care. The routes of access may not be readily transparent, a patient may not embrace the value of health care, and systemic barriers such as poverty, homelessness, unemployment, and lack of insurance may further widen the gap between health care providers and consumers.

Such barriers to care are pronounced in indigent populations such as in Baltimore city. According to the U.S. Census Bureau, 22.9% of the Baltimore city population in 1999 was below poverty level (compared to 8.5% in the state of Maryland).¹ In the same year, the employment rate in Baltimore city was 7.1% (compared to 3.5% in the state of Maryland).² Though poverty and unemployment deprive persons of private or employer-based insurance, they may be eligible for such forms of public insurance as Medical Assistance and Children's Health Insurance Program. The potential of such programs, however, can be circumscribed by low patient uptake, due to unfamiliarity with the programs (including the processes of enrolling), or lack of concern for health. Homelessness and the co-morbidities of substance abuse and psychiatric disorders are further impediments to care, presenting circumstances that may relegate health to being a negligible issue, and disabling

factors that may prevent patients from reaching a medical provider or complying with a medical regimen.

For a small group of students at the University of Maryland School of Medicine who shared a desire to find practical application of their growing medical knowledge, the alarming statistics propelled them to form an outreach program, Baltimore Community Medical Outreach (BCMO). The purpose of the program is to raise the health consciousness of Baltimore residents and bring them in closer proximity to medical care. The program first took shape as a more ambitious project of creating a free clinic, but with input provided by health professionals and community members, the group soon realized that patient-provider contact, while critical in initiating a continuity of care, is possible only after a requisite series of obstacles are surmounted. Since health care is sought volitionally, patients must first have a fundamental understanding of health, as well as of the importance of services aimed at preventing, screening, diagnosing, or treating disease.

Using Carlo C. DiClemente's transtheoretical stages of behavioral change as a framework, we saw patient-provider contact as the "action" stage of change, reached only upon completion of the preceding stages of "precontemplation" (in which a person has no intention to change), "contemplation" (in which a person becomes aware of a problem and seriously considers overcoming it), and "preparation" (in which a person intends to take action in the near future and begins making small changes).³ Realizing that as students, we could maximize our utility by helping patients progress through the initial stages of behavioral

change, we decided to make BCMO an outreach education program. Our goal would be to engage members of the Baltimore community in workshop discussions on various health issues, empowering them with the knowledge and facilities required to establish contact with health care providers as a first step in addressing their medical needs.

The function of BCMO is similar to what Brazilian educator Paulo Freire envisioned as “empowerment education,” in which people would participate in group dialogue to create a collective knowledge, which in turn would allow them to determine their own needs and priorities, as well as strategies for overcoming their problems.⁴ To Freire, “the health educator’s role is to contribute information after the group raises its themes for mutual reflection. Rather than impose their own cultural values, educators should enter into ‘authentic dialogue’ so people emerge from their cultural silence and self-blame to redefine their own social reality.”⁴ Consistent with Freire’s approach, BCMO fosters a two-way learning process in which we, as health educators, enlighten members of the Baltimore community on health issues, while they, in turn, illuminate for us the circumstances, values, and cultural norms that comprise an often overlooked dimension that has strong bearing on how they respond to a disease or to a prescribed course of medical therapy. By allowing the audience to assimilate health information and their experiences in dealing with a disease, the reciprocal learning process generates a collective knowledge that can be used as a pivotal force in progressing through the stages of behavioral change, ultimately leading to contact with the health care establishment, or increased competency in working with health care providers to optimize plans of care.

MATERIALS AND METHODS

One of our primary research tools were a series of panel discussions in which we invited health professionals and community members to share views on how we could best serve the Baltimore community. In the first panel, focused on identifying the possible utility and niche of a student-run free clinic, panelists brought the project one step back by suggesting that a free clinic was not the best means of helping the Baltimore community. “The problem isn’t a lack of services,” one panelist mentioned, “but that patients aren’t utilizing them.” Another panelist described health care for the poor as “a web of patched-together services that has the tendency to fall apart.” Instead of adding another provider site that would make the rugged terrain of the health care system even more difficult to navigate, the panelist suggested that we help patients develop confidence in working with the existing facets of the health care system. We could teach them such basic skills as applying for insurance, choosing a provider, assembling a medical history, and devising a schedule to optimize compliance to a medical regimen.

Another panel discussion on the subject of HIV/AIDS, a disease for which an extensive range of services exist, served as a testing ground for the theory that the problem is one of underutilization of existing resources. “What we

have to understand is that it’s more important to move people closer to understanding and accepting care rather than prematurely rushing them into it,” a panelist remarked. The problem is not systemic in that there is a dearth of HIV clinics or testing sites, but rather, exists as a patient’s own barriers to being tested or seeking treatment for HIV. Rather than duplicating existing services and not address the intrinsic problem relating to their underutilization, we could help individual patients understand the importance of being tested or treated for HIV, thereby increase their likelihood of utilizing available services. A free clinic was no longer in our plans, since it would misdirect the faculties that we, as medical students, were uniquely in possession of, namely, the ability and willingness to take time to listen to patients. We decided that the best way to help the Baltimore community was to educate them, empowering them with health knowledge and the drive and capacity to work with existing facets of health care system to promote their health.

West Baltimore is divided into “empowerment zones,” each allocated funding from the city government, and each with its own village center acting as a central point from which patients can be channeled into various avenues of support, from back-to-work programs to drug rehabilitation services to assistance in obtaining medical insurance. Each month, directors of the village centers meet with representatives of the university and its professional schools to discuss ways by which students and university-operated programs could direct their professional skills to the activities of the village centers. Our attendance paid off when we were invited to deliver a workshop at one of the local village centers, which we decided to focus on the subject of HIV/AIDS.

In preparation for each workshop, we prepared a reference booklet highlighting important points regarding the etiology, presentation, diagnosis, treatment, prognosis, and prevention of a disease. Though we assembled the booklets using resources directed at medical professionals (internet sites, journals, and textbooks), the booklets were written at a level appropriate for the attendees. We would use laymen terms to explain, for example, the biochemistry underlying viral replication and infectivity, or the physiology underlying the end-organ diseases of chronic hypertension. The reference booklets not only served as a discussion tool for the audience, but, in their assembly, helped us to acquire a fluency and expertise in the topic of discussion. The reference booklets also gave durability to the salient points of our discussion (beyond the hour-and-half we were granted per workshop), allowing the audience to deliberate further on certain issues after the end of a workshop. Furthermore, the attendees could partake in the process of information dissemination by distributing the reference booklets to family, friends, and acquaintances.

The outreach program has been in operation for two years. Funding for the program, which comes from the student council, is used to cover administrative costs and printing costs of the reference booklets. The program is staffed each year by a small but dedicated group of first- and second-year students. Since the rigors of the clerkship years limit

participation to the freshman and sophomore classes, there is frequent staff turnover, but the transition is made smooth each year by having the rising sophomores take over reigns of the operation well before the rising juniors are shuttled off to the wards. While there is consistency in the schedule of the workshops (being held on the first Tuesday of each month), exam periods are more sporadic, and sometimes problematic in distracting from the preparative stages of the workshops. The problem is minimized by having first-year students take lead role in preparing a workshop when the second-year class is burdened with an exam, and vice versa.

The topics covered in the monthly workshops have included other infectious diseases such as hepatitis and sexually transmitted diseases (STDs); metabolic diseases such as hypertension, dyslipidemia, and diabetes; lifestyle factors such as substance abuse and nutrition; and diseases to which African-Americans (the majority of the audience) are predisposed, including sickle cell disease and certain cancers. Each topic presented us with a unique teaching opportunity, as well as a chance for the audience to impress us with their "street knowledge" on the topics of discussion, or to share their experiences in dealing with a disease.

RESULTS

HIV/AIDS

We opened our first workshop with a question, "Can anyone tell us what the difference is between HIV and AIDS?" The answers came without delay. The audience fused together their shards of knowledge into a compendium that closely approximated what we, as trained semi-professionals, were able to convey. Though they harbored certain misconceptions or "myths" regarding the disease (such as one about Magic Johnson having been cured of AIDS), and sometimes drew rebuttals from us, they were never discouraged from sharing more.

To add to the utility of the reference booklet, we included an appendix listing the various sites at which HIV testing was offered, making sure to distinguish between testing that was confidential (only the patient and medical personnel would know the result) and testing that was anonymous (only the patient would know). For patients who had absolutely no access to clean needles and couldn't resist the urge to use, we included - as a measure of last resort - a section on how to "clean works," a process by which cold water and bleach could be used to wash needles and thus minimize transmission of disease.

Near the end of the workshop, one attendee raised his hand. "It's easy for medical students and doctors to stand up there and tell us that we shouldn't practice unsafe sex, and it's easy for us to believe you. It's a whole different matter when any of us - any of us sitting here, any of you standing up there - are there in the heat of the moment, and there's other things on our minds than this one piece of advice that we've heard a million times before." The comment, echoed in various ways in ensuing workshops, spoke about the differential weight that medical advice carries in the doctor's

office versus real-life situations. The comment also spoke about the non-discriminatory nature of the disease, suggesting that we, like anyone else in the room, could chronically ignore a simple piece of medical advice.

The end of the session brought many thanks from the audience, as well as an invitation to return to deliver workshops on a monthly basis. Debriefing on the ride home, we reeled from the excitement of knowing that our debut had secured us a continued presence at the village center, opening up a realm of possibilities in influencing these people's lives. The clearest indicator of our success was the active interchange that took place, one that had re-ignited a dormant passion in the audience to speak about and care for their health. Our goals for that evening had been set in accordance with what the panelists suggested. We wanted to bring the patients closer to the point of accepting care, a milestone marked by an increased willingness to undergo HIV testing or treatment. If any such change has been made, we may never know.

Hepatitis

In a subsequent workshop on infectious hepatitis, we were presented a threefold challenge in that instead of talking about one virus, we had to talk about three - hepatitis A, B, and C. We opted for an approach similar to that of our professors in comparing the viruses along such parameters as viral type, clinical presentation, diagnosis, treatment, and prevention. At the end of the workshop, we quizzed the audience on what they had learned, not at all surprised when they scored perfectly on all questions. Though the interchange had chilling resemblance to what many students see as the bane of the pre-clinical years - rote memorization and regurgitation - the audience proved that it could assimilate a wealth of information. At the following workshop, one of the attendees raised his hand and said, "I gave the booklet on hepatitis to a friend who I thought could use it. Two days ago, he calls me up and tells me he's starting treatment for his hepatitis." Our jaws dropped. This was an unmistakable sign of victory, clear evidence that our influences had reached beyond the village center, with members of the audience working on our behalf. They were doing for others what we did for them.

STDs

In our workshop on STDs - inclusive of chlamydia, gonorrhea, genital herpes, and syphilis - we had the scare tactic working for us. The mere description of symptoms would cause the audience to reflexively grasp their viral organs. The statement, "Have unprotected sex and this is what will happen to you," was implicitly made throughout the night. The workshop had more immediate impact than the previous two, probably due to the invariable connection between the disease and its methods of contraction. The audience was also treated to a crash course on anatomy, since an understanding of the complications of STDs - including epididymitis, prostatitis, cervicitis, and salpingitis - required familiarity with the anatomy of the reproductive organs.

Hypertension

For the next workshop on hypertension, the audience walked into the village center to see medical students armed with blood pressure cuffs and stethoscopes. They rolled up their sleeves and sat down for the verdict. Many were aware of their high blood pressure, and our measurements served to remind them of how long they've allowed the problem to fester. When asked about diet and exercise, their meager responses indicated that they knew their lack of initiative was partly to blame. In previous workshops, the audience had been reluctant to share their personal experiences of a disease (probably due to the nature of the disease under discussion), but with the topic of hypertension, those inhibitions were suddenly lifted, especially among those who were African-American and thus understood their disposition to the disease. We became privy to stories about endless trips to the bathroom that came with taking diuretics, or the cosmetic terror of watching one's face swell up from taking ACE (angiotensin-converting enzyme) inhibitors. One man made a stout refusal to take any medications because they dampened his sexual performance. His comment was echoed by many other men in the group, who thanked him for broaching a topic that they often didn't have the courage to discuss. The audience bonded over the universality of their disease, finding a communal voice that clamored about a medical burden that was written into their fate by the laws of heredity and aging.

Nutrition

The workshop on nutrition was refreshingly different in that we didn't discuss a disease, but a lifestyle factor that many in the audience had the capacity to change. We began by suggesting that 2,000 calories was a reasonable daily intake that, when balanced against caloric expenditure, would allow a person to maintain or lose weight. We then proved with a simple demonstration of calorie counting that an extra value meal at McDonald's could alone account for those 2,000 calories. On talking about foods that were particularly unhealthy, the audience moaned as we listed some of their favorite dishes. When we told them there was one food in particular they should avoid, given its high content of salt and fat, they begged us to go no further, since they knew the food in mention was fried chicken, a dish they were reluctant to part with. Not having much foresight into the diet with which the audience had been born and bred, we didn't realize how unrealistic our recommended diet sounded. The glimmer in the audiences' eyes when certain foods were mentioned proved to us that priorities were different. Perhaps the seriousness of the preceding workshops made the audience see this one as a respite. The audience wasn't ready to change, and remaining true to the lessons learned from the panelists, we didn't push it any further.

Diabetes

The final workshop of the first year of the outreach program was on diabetes. The rising sophomores had assumed full responsibility in preparing the workshop, bringing the cycle in full swing and landing them exactly where we had been nearly one year ago. Though each successive workshop had drawn increased participation from the audience, the

audience was disproportionately outspoken on the subject of diabetes. As with hypertension, enough members of the audience could lay claim to the disease, as well as its ensuing burdens - the painstaking regimen of oral medications or insulin injections, as well as the necessity of regularly checking their blood glucose levels. With diabetes, however, many in the audience had witnessed the wrath of the disease, having seen friends or family members lose a foot, an entire leg, or even their vision as a result of not keeping their sugar under control. The tragedies hit close to home, enough to scare the audience into an unwavering loyalty to their medications and glucose checks.

One attendee, who usually remained quiet during the workshops, moved into the front row and pulled out a glucometer. "I had trouble sticking with my medications at first. I didn't see why it was important to take them every day. Even when my doctor told me my sugar levels were sky high, I still had trouble remembering to take the pills, since there was nothing to remind me, nothing to give me a concrete reason for taking the pills three times a day. My doctor suggested that I get one of these, so I could measure my sugar every day. And that's when I began to stick with my medications, not because my levels were sky high, but because I was now in control. I didn't have to wait to see my doctor to get my levels checked. I could do it on my own, and I could see for myself what my medication was doing. For some of us, this is what we need. Once we have it, the road's a little easier."

DISCUSSION

After the first year of our outreach program, it was clear that BCMO had found a place in the Baltimore community. Our purpose and utility to the community had been clearly delineated as helping residents become more conscious and appreciative of their health, an impetus for establishing contact with medical providers and utilizing services offered by the medical community. Our efforts had been validated in several ways, as by the enthusiastic response of our audience, their regular attendance at the workshops, and our continued presence at the village center (and expansion into others) two years into our operation.

One of the goals of our outreach program was to help the audience overcome the decisional barriers that kept them from establishing an interface with the medical community. The clearest indicator of our success was that a friend of an attendee, having been given the reference booklet on hepatitis, finally sought treatment for his hepatitis. In the workshop on HIV/AIDS, the audience's knowledge on the subject and their inquiries into treatment options indicated that they were weighing the pros and cons of being tested for or seeking treatment for the disease. For the diseases that were highly prevalent among the audience - hypertension and diabetes - many in the audience were already undergoing medical treatment. With the interface already established, their task was to work with doctors to optimize their medical regimen, and to sustain their commitment to avert further progression of the disease. Though they were

reluctant to yield to our dietary advice in the nutrition workshop, the audience's recognition of the health risks associated with certain components of their diet suggested that they had the knowledge base required to make informed decisions once they were ready to change their diet.

In accordance with Freire's suggestions, we engaged the audience in an "authentic dialogue" to illuminate their cultural values and allow them to arrive at a collective knowledge based on the sharing of experiences. On the subject of nutrition, we realized that the audience ascribed a certain value to food that made it difficult for them to give up certain dishes for the benefit of their health. The complaints that many in the audience lodged against antihypertensives, because of such adverse effects as angioedema or impotence, indicated that issues pertaining to quality of life sometimes outweighed the clinical benefits of pharmacological treatment. Since hypertension and diabetes were well ingrained in their family lineages, the audience already had a collective knowledge on those subjects. The audience, true to Freire's theories on empowerment education, used that collective knowledge to develop strategies for addressing the problems, as exemplified by their strict adherence to diabetic medications and glucose monitoring.

The audience also made us realize how the impact of medical advice can abate from the time it was delivered in a medical setting to the time (or circumstance) in which the advice would be most utilizable. As one attendee mentioned, the reasons behind a physicians' advice not to engage in unprotected sex are well understood, though the task of adhering to such advice "in the heat of the moment" can be difficult. The nutrition workshop reinforced the importance of tailoring health guidelines to a target audience to maximize their feasibility. The diet we promoted had been largely derived from health guidelines directed at a general audience, assuming no differences in baseline diets

and thus no discrepancy in how easy it would be to transition to the recommended diet, an oversight we are sure to avoid in the future.

CONCLUSIONS

As medical students, we know we've mastered a concept when we're able to teach it to someone else. In the wards, the process of learning a procedure is to "see one, do one, teach one." By the end of the first year of our crusade, we all had become teachers. In delivering the workshops, we had taken our medical knowledge and taught it to others, tailoring it to our audience as much as our professors had done for us. One attendee was a teacher when he helped his friend seek treatment for hepatitis. Others in the audience had taught us the best ways they've found to manage their diabetes. Listening to the audience that night, I realized that as teachers, their eloquence far surpassed our own. They knew as much about a disease as we were able to teach, yet on top of that were many years of pure experience that made them inspiring spokespersons for the disease. If doctors are truly defined by the origin of their name, *docēre*, meaning "teacher," then the clients of the village center certainly met the requisites for the profession. That night, they were the true "doctors" in attendance.

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