

Development of a Website to Facilitate the Recruitment of African Americans and Latinos into the field of Genetic Counseling

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Project Purpose

We intend to develop a website to facilitate the recruitment of African-Americans and Latinos into the field of genetic counseling. Our website will be similar in intent to a current website managed by the Association of American Medical Colleges (AAMC). This website, *Aspiring Docs* (aamc.org/students/aspiring/) was created in 2006 for the purpose of diversity recruitment into medical schools. On a conference call this past April, the current managers of *Aspiring Docs*, Janelle Peters and Tami Levin, kindly shared information regarding the genesis and evolution of their website and provided insight and practical advice concerning the challenges and successes they've experienced. Based on this model, we intend to create a website that will inspire, guide and provide practical information to students of African-American and Latino descent who are interested in the field of genetic counseling.

Introduction

The lack of diversity in the health care professions is a well-recognized and long-standing problem. Of the health care professions, genetic counseling in particular is notable for the lack of diversity in its ranks (Mittman *et al.*, 2008). While the general population of the United States has increasingly become more ethnically and culturally diverse, there has not been a concurrent increase in diversity among health professionals (Kumaravel *et al.*, 2011; ACP, 2010). However, a growing body of literature supports the importance of diversifying health professions. Greater diversity among health professionals is associated with increased access to care, greater patient choice and satisfaction, and better patient-provider interactions (Kopesky *et al.*, 2011).

The disparity in representation between genetic counselors and their patients has significant impact on patient care. Research shows that racial and ethnic minorities receive lower quality health care even when access to insurance, income levels, disease severity and site of treatment are controlled for (Mittman, 2008; ACP, 2010). Among the many reasons for this disparity, there are three that have significance to genetic counselors: communication difficulties between patients and providers, cultural barriers, and provider stereotypes.

A study by the Robert Wood Johnson Foundation in 2001 found that non-English speaking Latino patients do not access medical care due to language barriers. Moreover, the ability of a genetic counselor to communicate effectively with patients is crucial to developing rapport in a session and is at the heart of the provision of effective genetic counseling. Cultural differences between a genetic counselor and the patient can also be a barrier to effective genetic counseling, due to mutual stereotypical beliefs about different cultures. Significantly, it has been reported that African-American and Latino patients are more likely to seek out ethnically concordant health care providers (Keith *et al.*, 1985; Komaromy *et al.*, 1996; Moy & Bartman, 1995; Xu *et al.*, 1997) and to be more satisfied with the services provided by ethnically concordant providers (Brown *et al.*, 2005; Saha *et al.*, 1999; Cooper *et al.*, 2006). In summary, increasing the diversity of the genetic counseling profession can improve patient care, increase the number of patients from minority populations who avail themselves of needed genetic services, and improve the cultural competency of the genetic counseling industry as a whole.

Despite a long history of efforts to increase the ethnic and racial diversity of the genetic counseling field (Mittman *et al.*, 2008), the proportion of individuals from minority groups practicing has decreased in past years. The NSGC Professional Status Survey (PSS) conducted in 2014 reports only 1.7% of those surveyed as Hispanic or Latino and 1% as Black or African-American (NSGC PSS, 2014). The

2012 PSS reported Latinos and African-Americans making up 2.1% and 1.1% respectively, and the 2010 PSS reported 2.6% and 1.2% respectively (NSGC PSS, 2012, 2010). This is evidence that as the field grows, the majority of new trainees are not from these two underrepresented groups, further diluting the already small proportion of Latino and African-American genetic counselors. In contrast, the population of Latinos and of African-Americans in the United States in 2011 was 16.7% and 13.1% respectively, and they are the two fastest growing minority groups in the country (census.gov).

In addition to the difficulty in recruiting under-represented minority (URM) students, retention of these students can also be a challenge. URM students that enter training programs report experiencing barriers that negatively impact their educational experience (Shoonveld *et al.*, 2007). For example, they can feel isolated, a sense of identity loss, and the pressure to represent their minority group when they are one of few or the only URM student in a small program cohort (Shoonveld *et al.*, 2007). If current trends continue as the NSGC grows larger, cultural disparities will also continue to grow, further hampering our efforts to retain this needed community of genetic counselors once we've recruited them. For this reason, an intervention to enhance our ethnic diversity is needed urgently.

Many studies have been done both on the barriers to URM students entering genetic counseling and health care professions, and the development of different recruitment materials to encourage diversity in genetic counseling over the years (Mittman *et al.*, 2008). However, there has still not been an observable change in the demographics of this field. Experimentation in recruitment methods, based on past research within the genetic counseling industry and other similar industries, is the necessary next step in addressing these barriers.

Background

Through a review of the literature, we have identified key differences in the career decision-making process of URM students compared to those of Caucasian background, as well as specific barriers to entering the field of genetic counseling for URM students. These insights will be used to help create web content for a targeted audience that highlights the benefits of a career in genetic counseling. For example, African-American students tend to choose a career path earlier than their Caucasian counterparts, generally late in high school or early in college (Schneider *et al.*, 2009). Higher proportions of African-American students are interested in a career in genetic counseling upon reading a description of the field compared to Caucasian students (Schneider *et al.*, 2009). Also, career values and goals of particular importance to URM students include giving back to their community and helping others (Kumaravel *et al.*, 2011).

Research studying barriers to recruiting URM students to genetic counseling and other health professions has found several factors and barriers that impact recruitment efforts (Oh *et al.* 2005; Andersen *et al.*, 2007; Schneider *et al.*, 2009; Nivet *et al.* 2008). Early awareness of genetic counseling as a career is important in recruiting students, especially among ethnically diverse applicants (Schneider *et al.*, 2009). Yet, genetic counseling is largely unknown to minority groups, and information on the career is not readily available (Shoonveld *et al.*, 2007; Kumaravel *et al.*, 2011). One study found that high school career counselors at demographically diverse schools often don't know about genetic counseling as a career, and if they do, they don't recommend it to students because they don't feel confident in their knowledge of the field (Kumaravel *et al.*, 2011). In addition, many URM students come from families in which parents are unable to provide the social or emotional support important for the attainment of a higher educational degree, due to a lack of higher education (Oh *et al.* 2005). This results in URM students obtaining career information and guidance primarily through personal contact with and mentorship from health professionals or from the Internet (Kumaravel *et al.*, 2011; Barfield *et al.*, 2012;

Nivet *et al.* 2008). This is in contrast to Caucasian students who often have career guidance from parents or other family members. Economic barriers are also significant as financial difficulties can make a degree in higher education seem unattainable (Rios-Ellis et al, 2005).

Program Plan

We will utilize this information to develop a website tailored to the recruitment of African-Americans and Latinos to the field of genetic counseling. This will be done with two approaches: one informational and one targeted.

Informational

For the informational approach, the website will contain information about genetic counseling as a career, guidance on how to apply to programs, how to find volunteer or shadowing experiences, scholarships and financial aid, how to find a mentor, and other useful tools to help one prepare academically to enter this career. Some of this content will be newly generated based on the above insights from our research. The rest will serve as an amalgamation of information that can currently be found on several websites (i.e., NSGC, ABGC, and the graduate school programs), but may be difficult to access for individuals not familiar with post-secondary education, or phrased in a way that is not developmentally or culturally appropriate for our target audience. Because many URM students are one of the first in their families to enter college, this informative aspect of the website is essential. This also serves as a resource for high school and college career counselors, who play a vital role in the career decision-making process of URM students, and are a long-term target of this website (Kumaravel et al, 2011).

Targeted

For the targeted approach, we will highlight aspects of the genetic counseling career that the literature has identified as important to URM students in choosing a career (e.g., having a positive impact on a community, flexible schedules, job security). We will also include a biographical section with stories about genetic counselors from diverse backgrounds. These biographical stories will focus on how they chose this career and accomplished their career goal, what kind of work they do, what they enjoy most about their career, and advice that they have for interested students. We plan to highlight two of these biographies by conducting video interviews with the genetic counselors and having the videos on the website.

Development

Our project will consist of writing the material of the website and hosting it on a subscription-based paid web development server. This will allow us to tailor the website to our audience's needs and eliminate advertising that would detract from the web content. Genetic counselor biographies will be generated by emailing a questionnaire to NSGC members on their listserv and personal outreach by our project participants. Completed questionnaires will be edited and rewritten into a biographical story by non-fiction graduate writing student(s) at Sarah Lawrence College to ensure consistency of style and quality between biographies, as well as to allow us to devote more quality time to creating the remainder of the web content. Sarah Lawrence College theater students will film and edit the video interviews. This website will be preliminarily completed and published online by the fall of 2014 (September-October).

Evaluation

After web development, the pilot website will be evaluated for content and appearance by students at local New York area high schools with a diverse student body. Our target audience will be students within two years of graduation with an expressed interest in science. Surveys will be administered by

the research partners of this project, and done on site at 10 schools. Participants will be given food as a gratuity for their time and honest feedback. These surveys are to be administered between October 2014 and December 2015, with a goal of capturing responses from approximately 250 students (25 per school).

As school counselors are known to be an important part of the career decision-making process for URM students, we also plan to advertise our website and conduct a survey through the American School Counselor Association (schoolcounselor.org/) email mailing list. Rental of their mailing list allows us to reach thousands of counselors across the country and target counselors specifically in high schools in particular geographic areas and with specific demographics. These surveys will be conducted anonymously, utilizing the online survey provider Survey Monkey (surveymonkey.com). This allows us to create custom surveys and has the capacity for thousands of survey responses through paid membership. Survey Monkey will also allow us to embed a survey within our website so that all web viewers may have the opportunity to evaluate the website. We can use this function to elicit evaluations from the genetic counseling community as well.

Analysis of the evaluations by students, school counselors, and web users will be used to make changes to the content and design of the website with the goal of creating a tool that is useful and informative to our intended audience. By the end of our one year project we aim to have developed an informational and motivating recruitment website that can be the framework from which more expansive web-based tools are created. For example, should this website prove a useful tool for recruitment of URMs into genetic counseling, we plan to add additional features, such as the inclusion of information specific to other URMs within the genetic counseling industry. The website could be the hub of a genetic counselor matching program, by which individuals or career counselors interested in the field are matched with a current genetic counselor mentor or partner. Additionally, it could also be used as an informational resource for any genetic counselor who chooses to present at a “career day” or “job fair” at high schools and/or colleges around the country, so they have an online portal to which they can direct their audience following their presentation.

Budget

\$300 - One year of Survey Monkey’s Gold Plan, allowing for unlimited survey responses and custom creation of surveys for both student and school counselor research participants.

\$620 - Access to 5,000 school counselors through American School Counselor Association email list for marketing and survey administration purposes (Assuming a 5-10% response rate, we expect approximately 250-500 participants).

\$240 - Web development and hosting for one year (12 months).

\$40 - One year (12 months) of domain name registration services.

\$600 - Thirty (30) large cheese pizzas (approximately \$15-20 per pizza, tips and delivery additional) for high school student research participation (target: 250 student participants).

\$200 - Assorted beverages for high school student research participation (target: 250 student participants).

\$150 - Disposable serving products (plates, napkins, cups) for serving food and drink during high school survey administration.

\$700 - Writing services at a rate of \$0.07 per word for ten (10) genetic counselor biographies of approximately 1,000 words each (total 10,000 words).

\$200 - Copy-editing services of all web content to ensure high quality content and consistency of style.

\$1200 - Filming and editing services for two (2) video interviews with currently practicing URM genetic counselors to be put on the website.

\$750 - Reimbursement for travel expenses in the administration of high school surveys by the two research partners, including: fuel, tolls, parking, and train/bus tickets.

Total Funding Request: \$5,000

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