Student Perspectives on Shaw in Jamaica-MoN, an International Collaboration for Undergraduate Research Training

M. Goldman¹, T. Dubroy¹, W. Aiken², S. McFarlane², N. Younger- Coleman², P. Dillard¹
¹Shaw University, Raleigh, North Carolina and ²The University of the West Indies, Kingston, Jamaica

Abstract

The “Shaw in Jamaica Minority Health International Research Training (MHIRT) of the National Center on Minority Health and Health Disparities (NCMHD) Project” is a five-year undergraduate training program that was established to allow students from Shaw University to spend a residential summer internship at the University of the West Indies (UWI) to develop a better understanding of the knowledge, attitudes and risk perceptions of Jamaican men with prostate cancer, towards the disease.

The aims of the Shaw in Jamaica MoN Project are:
1) to encourage undergraduates from health disparate populations to conduct international collaborative research;
2) to recruit undergraduates to careers in behavioral and epidemiological research;
3) to provide behavioral and research training to undergraduates on prostate cancer topics;
4) to conduct a research project that will further the elimination of racial health disparities among Jamaican men.

To achieve the aims, students were trained in Research Skills with a focus on Prostate Cancer Survey Research. Training included scientific writing, cancer biology, genetics of cancer development and screening tests; interview skills, instructions on responsible conduct of research & human subjects’ protection policies; data collection, entry and analysis. The students interviewed Prostate Cancer patients in the collaborative project. Shaw students were paired with Jamaican peers in order to collect data in the field. A diverse group of researchers, health care providers and academicians were involved in orientation and training.

The Program was evaluated at various levels, and the evaluations were statistically analyzed. The strengths and weaknesses were identified. Evaluation of the training Program by the trainees indicates they acquired significant understanding of the training topics (91%), and 86% plan to disseminate the knowledge in everyday work/study communities.

Student Recruitment

Undergraduate students were recruited from Shaw and other Universities in the local area. Students were required to have a major in the natural, social or behavioral sciences and a GPA of 3.0 to be eligible for consideration. An application package including references and a personal statement were required. Upon meeting eligibility requirements, applicants were interviewed by members of the Shaw in Jamaica local advisory committee. Candidates were ranked and the top 10-15 were selected to participate in the summer residential undergraduate research training program. In year 2 of the summer internship program 6 of the students selected were returning trainees from year 1.

In order to foster a collaborative climate, students were housed in undergraduate dorms at UWI. In addition to collaborating among fellow Shaw students, they were able to interact with UWI undergraduate students. This served a dual purpose, in addition to a social benefit, the interaction facilitated acclimation to the vernacular spoken in Jamaica which is at times difficult for foreign students to understand.

During this period each group was assigned a topic specific to Prostate Cancer and asked to develop and test the survey instrument followed by analysis and presentation of the data obtained. This provided a platform for the students to develop and nurture their research ideas with primary focus on Prostate Cancer Research. Topics selected for survey design and pilot testing were: Prostate cancer and its relationship to social demographic factors; Prostate Cancer and Lifestyle (Risk Behaviors); Prostate Cancer and co-morbid conditions; Diet and Prostate Cancer and Treatment of Prostate Cancer.

An integral part of the project lies in student participation in Experiential Learning Activities. These activities are designed to engender students in Jamaican culture and expose them to the Caribbean environment and way of life. The students will be transported to areas of interest around the island that include museums, hot springs, sustainable farms and geographical landmarks. Here REU participants will be able to interact with locals and gain an in-depth understanding of how is that cultural communication and practices affects the behavioral health of Jamaican men.

Student Orientation and Training

The training curriculum included research methodologies, socio-cultural factors, biomedical factors, clinical and laboratory-based analyses, as well as basic statistical analyses relating to Prostate Cancer Research/Survey.

Prior to the start of the program all the students were mandated to complete the NIH Human Subjects Protection Training, and oriented to research through discussions before departure to Jamaica. The initial training session focused on basic epidemiological research. The students were exposed to and participated in exercises in areas such as research design, samples size calculation, data analyses, basic statistical research ethics, survey design and testing among others.

The idea of team work was emphasized throughout the program as students were grouped and asked to work together in research teams, with peer-to-peer UWi student interaction. This created an opportunity for the students to get to know each other better and understand common challenges relating to personality and cultural differences experienced in established research teams.

Student Research

Shaw students conducted a cross-sectional regional study to measure the knowledge that Jamaican men who have been diagnosed with prostate cancer and were currently living in Jamaica have about Prostate Cancer; their attitudes related to Prostate Cancer screening and testing and their health seeking practices. Four hundred and thirty three patients were interviewed at public hospitals and private practices during the three year data collection period. Interviewer-administered questionnaires were collected from prostate cancer patients 40 years and older in Kingston, Montego Bay, and Mandeville. Study approval was granted by the Ethics Committee of the Ministry of Health. Statistical analyses of the survey data were performed.

Student Assessment and Program Evaluation

Five student assessments were incorporated in the training to evaluate their performance and progress throughout the training program. Assessments were presented in the form of a written or oral report. Each report was evaluated and assigned a score by the trainers. Individual Assessments and Group Assessments were performed. Students were ranked and the top 10 of those students passed on to their findings from the pilot test, prostate survey administration and prostate cancer case studies. Student’s scores were evaluated.

Program Evaluation by students

The students were asked to evaluate the training program, make recommendations on how the program can be improved, and identify areas that could be strengthened.

Overall, the summer training at UWI under the Shaw in Jamaica MoN Project supported 48 Shaw undergraduate students in gaining international experience that will enhance their learning and competitive disposition for graduate studies in minority health and health disparities fields. The Project provided significant learning in survey/epidemiological methodologies for the students beyond those available at Shaw University. This Project has established an international partnership for future exchanges not only in the area of prostate cancer research, but in health disparities fields in general.

The effective training strategy devised for the students promoted interaction of the Shaw undergraduate students with international students, some of whom served as peer-to-peer student motivators in the training strategy employed. During their summers in Jamaica, the trainees also interacted with UWI Faculty members, well acclaimed in academic areas impacting health. Evaluation of the training Program by the trainees indicate they acquired significant understanding of the bioscience, psychology and sociology of Prostate Cancer. As well as the cultural disposition of Jamaicans relative to Prostate Cancer.

Prostate Cancer is the leading cancer among men. It is on record that African American and Jamaican men of African descent have the highest prostate cancer incidence and mortality rates in the world. The collaboration established in this Project fosters an international partnership for future exchanges between Shaw and UWI in the area of prostate cancer research. Apart from the significant research experiences gained by the students beyond what is ordinarily available at Shaw University, the focus on prostate cancer will ensure that students become interested in this research area early in their careers, especially as the burden of prostate cancer and the health disparities compared to other groups are quite prevalent in both USA and Jamaica.

Summary

The Shaw in Jamaica-MoN undergraduate research training project provided students with significant research experiences in an international setting. Such research experiences are helpful in gaining admission to graduate research universities. The focus on behavioral studies related to prostate cancer will ensure that students become interested in social, behavioral and health disparities areas early in their careers, especially since the burden of prostate cancer and the health disparities are prevalent in both countries.

Conclusion

The Program was evaluated at various levels, and the evaluations were statistically analyzed. The strengths and weaknesses were identified. Evaluation of the training program by the trainees indicates they acquired significant understanding of the training topics (85%), and 86% plan to disseminate the knowledge in everyday work/study communities.

References


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