

Supporting a Nursing Program in a Low-Income Country: A Collaborative Project

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Abstract

Background: Healthcare professionals' number in Haiti is reported to be 5,400: 2.8 per 1000, or 1.8 nurses and one physician per 10,000 people. There is a need for well-trained professional nurses to care for the population and educate incoming nursing professionals. The City University of New York's (CUNY) involvement in a project to strengthen the nursing school at the Université Publique d'Artibonite aux Gonaives (UPAG), is an essential initiative that can help improve Haiti's health care system.

Methods : Members of the CUNY faculty team traveled to Haiti to conduct the initial needs assessment. They met with students and faculty at UPAG. A program was designed to respond to the need's assessment findings. CUNY faculty for the UPAG project were selected from a core member of CUNY Chancellor's Haiti Initiative team. It included educational sessions for senior students and an opportunity for UPAG nursing faculty to participate in a professional development program.

Conclusion: The project fulfilled the needs for faculty and students' supports. However, there is still more work to be done. To this end, two UPAG nursing faculty participated in a Master's in Nursing program at Regis University and CUNY faculty continued to support students through a mentorship program.

Keywords: *Cultural, CUNY, Haiti, Faculty, Nursing Education, Students*

Introduction

Most of Haiti's health facilities are in Port-au-Prince and the surrounding area; few health facilities have been established in the rural and provincial regions¹. Furthermore, the number of healthcare professionals in Haiti is limited to a total of 5,400: 2.8 per 1000, or 1.8 nurses and one physician per 10,000 people². This number is alarming as nurses have been reported to play an important role in improving health around the globe^{3,4} and in Haiti the healthcare system depends heavily on nurses⁵. There is a need for well-trained professional nurses to care for the population and educate incoming nursing professionals. Haiti additionally needs well-trained, auxiliary health or community health care workers to provide primary care and health education. The City University of New York's (CUNY) involvement in a project to strengthen the nursing school at the Université

Publique d'Artibonite aux Gonaives (UPAG), and an additional project to train community health workers in the Les Cayes area, at the Université Publique du Sud aux Cayes (UPSAC) are essential initiatives that can help improve Haiti's health care system, decentralize and revitalize health care outside of Port-au-Prince^{2,5}.

Data from the 2013 report from the Enquête Mortalité, Morbidité et Utilisation des services (EMMUS) indicated that in Haiti, 59 infants per 1000 die before their first birthday, and 31 per 1000 of those who survived their first birthday die before the age of five⁶, compared to 14.6/1000 that die before their first birthday in Jamaica¹. Throughout Haiti, anemia is rampant; chronic malnutrition among pregnant women is over 22%. The cholera outbreak of 2010 resulted in the deaths of 8,300 Haitians, and 650,000 cholera survivors¹. Thus, the creation of UPAG constituted an event of great

importance in the socio-economic and cultural life of Haiti in general, and of the department of Artibonite and the city of Gonaïves in particular. Gonaïves is the fourth largest city in Haiti, with a population of approximately 300,000 according to the 2011 census. The university fills a gap in higher education and addresses the lack of qualified institutions of higher education in the geographical regions⁶. The School of Nursing is one of UPAG's three higher education schools. As the overall goal of CUNY's Haitian Initiative was to improve the capacity of the regional public universities, it was appropriate for CUNY to become involved in a project that would increase the ability of the Gonaïves nursing school to educate its nursing students so that they can be better equipped to improve healthcare in Haiti.

The School of Nursing has 14 faculty members who are considered full time. However, due to inconsistencies in payment⁵, most have other employments which take them away from the primary job of teaching. The School of Nursing facilities were cement classrooms that were often too small. Classes are held, Monday-Friday, from seven in the morning to six in the evening. Saturdays are reserved for completing lectures, appointments, or special projects. Total student enrollment in the nursing program is about 250, with 65 students per class. Enrollment at UPAG is based on competitive yearly examination organized by the Higher Council (Rectorate) for the School of Administration and the School of Education, or by the Ministry of Public Health via the Direction of Formation and Perfection in Sanitary Care (DFPSS) for the School of Nursing. The school of nursing only grants a diploma at this time. The existence of UPAG represents a turning point in the life of the population.

Nursing education in Haiti is greatly affected by the lack of resources^{5,7}. Although UPAG is affordable, it provides few amenities. It lacks a cafeteria, student lounge, or place to study. As it is so often the case in Haiti, the use of resources is compromised by the limited number of updated books, computers and Internet access. UPAG offers a professional license in Education, Business Administration, and Nursing.

Materials and Methods

Assessing the Needs

Members of the CUNY team traveled to Haiti to conduct the initial needs assessment at UPAG. CUNY faculty met with sixteen 4th-year students who were in their tuberculosis (TB) rotation. An additional 39 nursing students were out of town in a psychiatric rotation in Port-au-Prince. The students who were present discussed their reasons for selecting to study at UPAG. All students were aware that the UPAG nursing program was an additional year, compared to others. They chose UPAG for safety reasons (they felt Port-au-Prince was too dangerous), the lack of nursing programs in their home communities and a desire to experience life in a different community.

In the afternoon, CUNY faculty visited a class of 47 third year students and accompanied them on a clinical tour led by an interdisciplinary team. CUNY faculty observed role-modeling by the nurse in charge and found that although students had advanced skills and knowledge, they needed further experience in medical/surgical and in health assessments. They additionally identified that:

- The daily census dictates students' assignments.
- Students are supervised in clinical rotations by unit charge nurse.
- Students provide complete care for patients and perform all skills.
- Students provide group health education. An interdisciplinary team approach is used, with close collaboration with nursing personnel (monitrice to auxilliaire).
- Nurse Auxilliaires serve almost the same function as nurses.
- Because of poor resources, health care personnel, and students sometimes contribute to buy medications for patients.
- There was a need for greater supervision.

In addition, to the above, the needs assessment revealed five important characteristics:

- Devotion of professors in spite of low or no pay
- High level of support from professors
- Close guidance from the director of the program
- The students had a caring attitude toward patients
- The students were involved in the community

Moreover, students faced numerous challenges, such as:

- Scarcity of trained professors
- Difficulty of obtaining transportation to clinical sites
- Limited equipment and supplies in the lab
- Limited number of up-to-date textbooks and reference books
- Few specialty services in the teaching hospital, Hopital Bon Secours

Furthermore, the CUNY team learned that after graduation, students' job prospects in Gonaives are poor. The main employer, Hopital, Bon Secours, is small with approximately one hundred beds. The hospital provides the following services: outpatient maternal health, malnutrition care, inpatient medical, surgical, obstetrics, operating room, and pediatric care. Six out of the 16 students interviewed have post- graduation aspirations and will seek specialization. One student who aspires to be an educator is a government employee whose education was being funded by her employer.

Students reported that the professors were receptive to their needs, and that the program Director listened and was available to students. However, communication may sometimes be hindered because of the expectation that they speak in French. The CUNY needs assessment team also met with the fundamental nursing faculty. They discussed the scarcity of supplies for teaching, demonstration, and practice; moreover, they shared their teaching methods, which included lectures, role-playing, and Power-Point presentations.

From this initial need assessment, the CUNY team made the following recommendations

- Facilitate the attendance of two faculty members to Regis University in Boston, Massachusetts.
- Request French textbooks from Elsevier publishers.
- Obtain a list of needed supplies from Director of Nursing Program.
- Track students' post-graduation in their professional journey
- Offer professional development, i.e. training, interview skills, interdisciplinary collaboration
- Improve the visibility of males in the profession and integrate more males in the program

Implementation

The Program was designed to respond to the need's assessment, with particular regard to the need for more teachers, more instruction in medical/surgical, and English conversation. CUNY faculty for the UPAG project were selected from a core member of CUNY Chancellor's Haitian Initiative team which included CUNY doctoral nursing students and CUNY faculty. The program faculty were selected for their teaching expertise, fluency in Kreyol, and familiarity with Haiti.

The CUNY Initiative held its first project in the summer of 2011. The project was about health assessments and pain management. Participants included 59 third year students. The approach was to teach differently from the traditional way, in which students sat at individual classroom desks and faced the teacher. CUNY faculty sat students into a circle to facilitate visibility and encourage participation. Session run Monday through Friday, from 7am to 5 or 6 pm, for two-weeks. Topics included:

- Communication techniques
- English as a second language to the nursing students
- Group Presentations- Based on English terminology and patient diagnoses

- Medical/Surgical nursing care and assessment.
- Diabetes
- Hypertension
- Post-operative Pain Management
- Assessment of pain in hospitalized patients-both Haitians and non-French and non-Kreyol- speaking patients.
- Disaster Nursing Care and Assessment
- Hands on practical experiences

- Care of the patient who was in an accident
- Wound care

In the second summer, the team developed a more comprehensive program that addressed both students and faculty needs. It included two weeks of student training and three days of faculty development. The students were eager to learn and participated to the fullest in the class activities. The classes were lively and interactive. Professors and students were dedicated to accomplishing the task at hand, which was to teach and to learn. Table 1, 2, and 3 delineate the two weeks of students and faculty workshop schedule.

Table 1 : Student Workshops Week One

Time	Mon	Tues	Wed	Thurs	Fri
800AM-900AM	Orientation Validation of educational needs	Integrating English in nursing and medical practices	Nursing and medical terminology hypertension and diabetes mellitus	Documentation	Watch video 2 episodes of Grey's Anatomy
900AM-950AM	Activities / Assignments	Cross cultural understanding; short reading passages; dialogue; role-play	Listen to audio recording of nursing terminology, read, and write nursing terminology;	Workbook exercises	Group discussion related to film watched
950AM-1000AM	Break	Break	Break	Break	Break
1000AM-1100AM	Small group work assignments (in class)	Small group work assignments (in class)	Discuss pictures and vocabulary related to nursing care; role-play	Small group work assignments (in class)	Review work covered during the week
1100AM-1200PM	Cont. above	Cont. above	Cont. above	Cont. above	Cont. above
1200PM-1240PM	Lunch	Lunch	Lunch	Lunch	Lunch
1240PM-130PM	Listening Reading Speaking	Listening Reading Speaking	Listening Reading Speaking	Presentations	Discuss outline for final project; distribution of assigned topics
130PM-200PM	Group discussion	Group discussion	Group discussion	Presentations	Cont. above
200PM-210PM	Break	Break	Break	Break	Break
210PM-300PM	Evaluation of day,	Evaluation of day	Evaluation of day	Jeopardy activity/ evaluation	Jeopardy Evaluation of session

Table 2: Student Workshops Week Two

Time	Mon	Tues	Wed	Thurs	Fri
800AM-915AM	View clinical skills videos: Fundamental to advance skills. Discussion demonstrations clinical skills	Practice of clinical practice skills: Injections	Emergency medical/nursing services	Final project presentations	Final project presentations Summation Course evaluation
915AM-1000AM	Discussion and practice of clinical skills	Activities / Assignments based on practiced skills and patient scenarios	Role play	Final project presentations	Final project presentations Summation Course evaluation
1000AM-1010AM	Break	Break	Break	Break	Break
1010AM-1130PM	Cont. skills practice Dressing changes	Cont. above/ case studies	Role play cont. Case studies	Final project presentations	Cont. of summation and course evaluation
1130PM-1210PM	Lunch	Lunch	Lunch	Lunch	Lunch and Closing Ceremony
1210PM-1:20PM	Review and discussion	Review and Jeopardy	Small group work on case studies	Review/ student oral evaluation	Closing Ceremony
1:20PM-3:10PM	Review/ Q & A	Cont. above	Cont. above	Review/ student oral evaluation	Closing Ceremony
2:100PM-2:20PM	Break	Break	Break	Break	
220PM-420PM	Evaluation of day: Group and individual evaluation	Evaluation of day, Group and individual evaluation	Review and evaluation of day	Review/ student oral evaluation	Closing Ceremony

Table 3: Faculty Development Week One

Time	Mon	Tues	Wed	Thurs	Fri
1200PM-1240PM	Lunch	Lunch	Lunch	Lunch	Lunch
1240PM-140PM	Introduction UPAG nursing faculty discuss method of teaching used: what works, what does not work?	Strategies to maintain interest and participation in class Transitions activities Wake up activities Emphasize main points	Presentation of developed case studies		
140PM-240PM	Overview of Bloom Taxonomy of cognitive domain and how it applies to nursing education	Must know strategies for any teaching situation Activity based Direct instructional Arts based Cooperative Independent learning Reflection	Strategies for the lab setting: Simulation, standardized patients, Case studies		
240PM-300PM	Break	Break	Break	Break	Break
300PM-400PM	Learners types Adapted teaching strategies for different types of learner types	Case studies: What is it How to develop How to use in class and lab setting Group work Homework assignment	Evaluation techniques Assignments: How to make assignments meaningful		
400PM-500PM	Adapted teaching strategies for different types of learner types	Strategies to increase students' clinical judgment	Evaluation		

The project offered UPAG nursing faculty members an opportunity to participate in a professional development program. Faculty were exposed to alternative teaching methods that provided them with strategies for preparing students for the national licensure exam. The goal was for UPAG nursing faculty to become knowledgeable about ways to develop and integrate case studies in their classes, identify strategies for teaching different types of learners, and demonstrate activities that promote learning. The faculty program used evidence-based information to provide new skills

and knowledge to nursing faculty and enable them to identify new strategies that would strengthen their teaching skills.

Faculty members were receptive to the project, but their part-time jobs made them unavailable to participate. Several taught at other schools of nursing, and/or worked at local hospitals and community health settings. Of 14 nursing faculty members, four attended the first day of the workshop. Due to their other obligations, none of the faculty members were able to attend subsequent

workshops. The first meeting was very interactive. The UPAG nursing faculty discussed their method of teaching and reflected on what work or does not work. There were difficulties with using the prepared Power Point presentation, due to lack of projector. The printed slides were used to discuss the relationship of Bloom's Taxonomy to nursing education and appropriate strategies for teaching different types of learners.

Language of Instruction

The languages of instruction were French, Kreyòl and English. Translation had to be provided for non Kreyòl speaking CUNY professors. Teaching drug calculations in Kreyòl was a significant experience. Kreyòl is usually not the preferred language in teaching at the university level, although 100% of the population speak Kreyòl and Kreyòl is the only language that 85% of the population speak and understand. Students were encouraged to write their nursing history in Kreyòl. They conceded that they have not so far communicated with patients in any other language than Kreyòl. Attendees admitted that there is a need to have scientific materials, including nursing materials, developed in Kreyòl. The two days of drug calculation class consisted of calculation of oral, solids and liquid medications.

The following is an example of a drug calculation shared with the student:

Doktè a preskri 0,5mg digoxin, famasi a voye digoxin 250 microgram pa tablèt, konbyen tablèt ou dwe bay kliyan? Translation: A client is ordered 0.5 milligrams of Digoxin 250 microgram tablets are available. How many tablets will you give? Answer: 2 tablets.

Conclusion

This project was guided by initial encounters with students, faculty and the Director of the Gonaives nursing program. The project fulfilled the revealed needs for faculty development programs that would introduce the faculty to alternate instructional strategies and learning for planning, developing, and presenting components of core nursing related topics. In addition, it supported students in their expectations for access to a program with clear and attainable objectives, that would enable them to express themselves while learning and preparing them to meet the challenges of the Haiti's

healthcare system.

While we experienced some challenges students, faculty and the administration verbalized an appreciation for the educational resources and alternative teaching strategies presented. The students were especially satisfied with teaching strategies that were culturally significant for the Haitian population, promoted learning and were inclusive for all types of learners. Facilitating a culturally congruent nursing education program is paramount. Cultural competence has been cited as a significant contributor to balancing the gap in global health equity³. While many of our goals for the program were accomplished there is still more work to be done in providing support for the students, faculty and healthcare system in Haiti. This experience further identified a need for additional resources for both students and faculty to promote and elevate the profession of nursing in Haiti. As a result of the CUNY project, two nursing faculty members at UPAG participated in an educational program for a Master's in Nursing through Regis University. In addition, CUNY faculty continue to support students through a mentorship program. This fulfils the need for continuing education for nursing faculty identified by Louis and Moloney⁸. However, much more need to be done. As stated by Clark et al.2015^(p. 61) "Adequate recognition of the vital role of nursing in the health system and support for nursing continuing education at a national, organizational and institutional level is an important preceding factor for the successful development of programmes."

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Ethical Clearance: This is a case report based on the authors' experience. No ethical clearance needed.

Conflict of Interest: Nil

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