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RUNNING HEAD: A Model for an Academic-Community Partnership

**Disaster Response after Hurricane Katrina: A Model for an Academic-Community
Partnership in Mississippi**

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Abstract

Team Reach Out Biloxi is a nursing student-initiated service-learning project with the goal of providing ongoing assistance to the victims of Hurricane Katrina. On six different occasions from 2005 to 2008, Purdue nursing students integrated their leadership skills with application of public health knowledge, compassion, and concern as they worked in partnership with the Gulfport region Coastal Family Health Clinics. This paper reviews the service-learning framework, course planning, and implementation of a three-year post-hurricane disaster project.

Key words: disaster response, nursing education, community partnership

Introduction

Team Reach Out Biloxi, a Purdue University School of Nursing (SON) service-learning project, is a student-sponsored aid and recovery effort focused on assisting the Gulf Coast region after the destruction caused by Hurricane Katrina in August 2005. Katrina, a Category Four hurricane, devastated 90 miles of coastline, displaced 1 million residents, and received nationwide media coverage. In the months after the hurricane, Purdue students from several schools within the university volunteered their time, talents, and educational skills in an effort to assist with the recovery process. Purdue School of Nursing students and their faculty went further, making a three-year commitment that included six visits to the region. Over the course of this time, nursing students utilized their baccalaureate nursing education and clinical skills to show their care and compassion to the Gulf region's vulnerable and displaced residents.

Service learning is a structured, reciprocal learning experience. It includes a community or communities with a need and students with a need for learning (Bailey, Carpenter, and Harrington, 2002; Poirrier, 2001). The collaborative relationship benefits both the community and students. Communities benefit when institutions of learning participate in service learning because of the knowledge and creativity available to academia. Students benefit when exposed to real-life dilemmas and first-hand experience of joint team efforts. When communities and students unite, new and different sets of eyes and hands facilitate problem-solving and restoration activities. The Team Reach Out Biloxi service-learning partnership between the Purdue SON and Coastal Family Health Clinics, a major healthcare provider to the Gulfport region, was just such a project.

Process

For four days and nights in August 2005, Hurricane Katrina ravaged the U.S. Gulf Coast from New Orleans to Florida. Within days of the storm, Purdue Nursing students began initiatives to participate in the area's restoration.

The conceptual framework used to model the operations of the Team Reach Out Biloxi project was the International Community Assessment Model (ICAM) (Novak, 2007). ICAM was chosen as the project's framework because of its focus on disaster intervention. Components include the identification of key stakeholders, informal and formal leaders, community needs, both real and perceived, and potential community partners.

From the outset, Team Reach Out Biloxi was student-initiated, with faculty support. In the weeks following Katrina, five SON students partnered with Purdue's Hotel and Tourism Management students to organize a benefit concert, held on Purdue's campus, featuring local musicians and restaurants. The Greater Lafayette community supported the project when the local bands donated their music, restaurant entrepreneurs donated popular menu items, and local residents attended.

Concurrently, in September 2005, the head of the SON contacted the Dean of Alcorn State University SON located in Natchez, Mississippi, with the intent of initiating a collaborative partnership. Because the expected recovery for the region was to take many years, the Purdue SON had a two-fold interest in this collaboration. The first goal was to provide a way for displaced students from Alcorn State to continue their nursing education at Purdue University. This included academic placement, tuition, and housing. The second goal was to partner with the region's largest healthcare provider, Coastal

Family Health Clinics and provide students with a unique learning opportunity while also filling a gap in services.

Once the two service-learning partners were identified and committed to the project, a community assessment was conducted during the Fall 2005 semester. In the days and months after Katrina, much of the media focus centered on New Orleans and the failed levees. The state of Mississippi received limited media coverage, even though it had also sustained devastating damage and for this reason became the focus of this project. The coast of Mississippi was chosen for this project because it was considered ground-zero for Katrina (Southeast News, 2008).

An extensive assessment was done by the head of Purdue SON in the region of Mississippi severely damaged by the storm. Many Mississippi communities were visited, including Ocean Springs, Biloxi, and Gulfport, as well as other low-lying coastal towns. Team members performed a windshield assessment and a walking tour, and attended a meeting with the Alcorn State University nursing dean and Coastal Family Health Clinics' medical director and CEO. The Purdue SON students and faculty worked with the Mississippi stakeholders and communities to determine the immediate needs and what role the Purdue nursing students would play. With the completion of the community assessment, the SON made a three-year commitment to work with Coastal Family Health community clinics of the Mississippi Gulf Coast.

The Team Reach Out Biloxi service-learning project provided senior nursing students enrolled in either Leadership or Public Health courses the opportunity to participate in disaster recovery over time. Leadership students utilized skills necessary for planning a group endeavor, such as travel arrangements, housing, and food. Senior students from the

Public Health courses also met course objectives related to community and windshield assessments, communicable disease, and disaster recovery public health issues. All students assisted in writing for university-sponsored grants and volunteered within the Coastal Health Clinics. While in the clinics, students used their nursing skills and the nursing process, and built relationships with staff and clinic clients.

Partners

The key partner of the project was the Coastal Family Health Clinics (CFHC) which serves Jackson, Harrison, and Hancock counties. CFHC operates 30 clinics on the Mississippi Gulf Coast and is the largest provider of primary healthcare. Founded in 1978, CFHC's purpose is to provide quality healthcare and social services to all people regardless of socioeconomic status with the understanding that the term "health" is an inclusive one that seeks to improve the quality of life of the whole community.

Hurricane Katrina caused extensive damage at several of the CFHC facilities, including the clinics in Gulf Port, Moss Point, and Bay St Louis. "When Katrina hit the region in August 2005, Coastal was serving a population of over 30,000 patients. Katrina destroyed two of Coastal's seven permanent and school-based locations, its entire IT and billing system, two mobile healthcare units, and significantly damaged the buildings and/or destroyed the contents of almost all other locations. It also initially displaced 60 of Coastal's 175-strong staff" (Coastal Family Health Clinics, pg. 1, 2007).

Team Reach Out Biloxi

Eight Purdue nursing students and two faculty members traveled 12 hours in vans to reach the Gulf Coast during March 2006, seven months after Katrina. The damage to the region could never be captured by photos, and students were unprepared for the visual

evidence of the loss incurred to property, and the human loss, both quality of life and by death. The ravaging of the environment by the coastal waters, swirling winds, and heavy rains was evident in the shattered homes and structures as seen by personal belongings hanging in trees or scattered along the coastline. During subsequent student trips, rebuilding efforts would lessen the visual image of the storm's effects, but the human stories recounted by those who survived continued to be heart-rending.

During this initial trip, senior nursing students from the Purdue Nursing Leadership class and six Alcorn State nursing students participated and partnered with Coastal Family Health Clinics. These students distributed donations of canned goods, toiletries, clothing, and bedding to families living in FEMA trailers. During this trip, students also partnered with Christians Organized for Relief Efforts (CORE) and other Purdue volunteers to work on the renovation of homes and churches.

The next trip took place 2 months later in May 2006. Five different nursing students participated in this trip during an independent study class and again partnered with Coastal Family Health Clinics and with CORE to aid in rebuilding efforts. During this trip, students were able to work with Coastal Family Health Clinic staff members who were eager to share their first-hand experience. These discussions seemed to be very therapeutic for the Mississippi residents. Patients and staff members began to increasingly describe signs and symptoms of post-traumatic stress syndrome (e.g. insomnia, fatigue, depression) as they came to the realization that their lives were forever changed (Coastal Family Health Clinic, 2007; Vest and Valadez, 2006). Purdue students and faculty were also able to evaluate and recommend triage for the CORE volunteers who came to the region when health needs or injuries arose.

Six months later, the third trip occurred in November 2006, 13 months into recovery. Eight new students participated as part of a Public Health class and again partnered with Coastal Family Health Clinics. During this trip, students collected personal care items which they were able to distribute at a local clinic for the homeless. Students were also able to participate in an HIV clinic and witnessed providers giving patients test results, a first-time experience for most students.

The fourth trip occurred in March 2007. Six senior students from the Nursing Leadership class participated and partnered with Coastal Family Health Clinics. Before the trip, students collected food and medical supplies from local neighborhoods. The medical supplies were donated to CFHC and the food was given to a Biloxi food pantry. During this trip, students worked closely with the staff and patients at the CFHC, who began to describe themselves as survivors who were strengthened by the tragedy.

The fifth and final trip occurred in spring 2008, 2 years later. Students again worked with their well-established partners and colleagues, although by this time, damage had become less apparent as communities progressed through the healing process. Students toured the Gulf Coast and travelled to New Orleans for one afternoon to observe the restoration process. During this trip, students roomed at the Salvation Army volunteer station.

Discussion

Students were given the opportunity to work alongside the clinic staff in seven of the 30 Coastal Family Health Clinics and were able to experience common ailments and concerns found in family practice patients, made worse by Hurricane Katrina when clinics were closed, records were lost, and medicines were not available. Clinic clients

experienced depression and anxiety at record levels because of the storm. The top five presenting concerns seen by students and staff included upper and lower respiratory infection, acute gastroenteritis, dermatitis, and physical trauma/injury secondary to renovation work.

During the course of the project, nursing students were able to build ongoing supportive relationships with community residents by actually working in homes during the process of restoration. One particular resident, an older adult man who had to tread water for eight hours to survive the storm surge, maintained contact with students throughout the duration of the visits. One nursing student was able to rally a local high school in her hometown to collect and donate much-needed supplies for hygiene and winter to be donated to the clinic's homeless clients. Nursing students and faculty were also resources for health practices while staying at a large volunteer camp that housed out-of-state volunteers who came to the region to rebuild homes.

Student Responses

Students who have participated in these trips reported that they enjoyed being in the clinics and having the opportunity to utilize their skills. Clinic staff stated that the students "hit the ground running" and were truly helpful. This may be one of the most important reasons for these continued trips.

Evaluation

Overall, 33 Purdue Nursing students and five faculty members participated in Team Reach Out. The visual loss became less apparent as time went on and each student cohort had a different Katrina experience. Students and faculty were able to observe changes and improvements in the growth and development of the survivors and the

slowly improving infrastructure of Mississippi Gulf Coast. For faculty, seeing the initial trauma and observing student responses was very poignant.

As a component of the project evaluation, Team Reach Out Biloxi wanted to assess the understanding of the critical components of effective service-learning. At the end of the last trip both students and providers were asked to complete an anonymous survey regarding service learning. (INSERT TABLE 1).

Table 1 includes responses from students who participated in the last trip, and from Coastal Family Health Clinic service providers. Students and clinic staff had similar responses for many questions; however, there were differing views between students and providers with respect to student learning. Since the students did much of the planning in their senior Leadership Course, they perceived more barriers to service learning than the providers did. Both the students and the providers were willing to participate in service learning again, however, some of the students were not able to see the reciprocity of service learning as clearly as the providers did. This may be because the sixth cohort took part in the final trip, when the recovery process was well underway. If early trips had been surveyed, we could compare and contrast these responses.

The providers responded that the students were addressing community needs quite well. Unfortunately, the students did not perceive this. This information would be important to incorporate in future service-learning trips to ensure that students more clearly see where they are making a difference. Once again, these responses may be reflective of the timing of this trip.

Students and providers were also asked to define service-based learning. Table 2 reviews their responses. (INSERT TABLE 2 HERE). Based on their responses, it

appears that the students had a fairly good grasp on the definition of service-based learning. Providers were not as solid in their response, probably due to the fact that they were not as active in planning the process nor had they experienced the service-learning didactic coursework. However, the provider respondents had a favorable view of service learning.

Summary

This project is in line with the mission of the SON, which is “to serve the citizens of Indiana, the nation, and the world through discovery that expands the realm of nursing knowledge, learning through the dissemination and preservation of knowledge that prepares graduates for...leadership in their work settings, engagement through the application of nursing science in local to global healthcare settings, and advocacy through participation in healthcare legislation and policy that respect diverse client populations.” Community partnerships with universities play a significant role in addressing local problems and revitalizing our nation's communities. These partnerships make future generations aware of these issues by integrating partnership activities into their academic studies and student activities. This service-learning experience combines community service with preparation and reflection that is both discipline-specific, interdisciplinary, and linked to course objectives. Students are able to provide community service in response to community-identified needs and concerns and learn about the context in which service is provided, the connection between their service and their academic coursework, and their roles as global citizens. Since service-learning can be an empowering process, communities can also be strengthened through this collaboration.

This collaborative process provided unique learning opportunities while meeting critical needs of the community.

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Tables

Table 1. Student and Provider Responses of Service-Learning Questionnaire

Purdue University School of Nursing Service-Learning Questionnaire Strongly Agree (5), Agree (4), Undecided (3), Disagree (2), Strongly Disagree (1)		Student Average (n=8)	Provider Average (n=7)
1.	Service-learning at Purdue University School of Nursing may be a catalyst for:		
a.	assisting societal needs.	4.9	4.7
b.	student learning.	4.9	4.7
c.	building relationships with community service organizations.	4.9	4.6
d.	engagement opportunities.	4.9	4.7
2.	I encountered significant barriers to completing this service-learning activity.	4	2.6
3.	Service-learning should only be integrated into senior course leadership.	2.9	2.9
4.	Service-learning enables a positive change through leadership.	4.6	4
5.	I was reluctant to participate in community and civic service-learning activities.	1.8	1.9
6.	Service-learning is a community-building and democracy-building activity.	4.3	4.4
7.	I plan to continue Service-Learning activities in the immediate future.	4.4	3.9
8.	This experience embraced the concepts of reciprocity between learning and the community being served.	3.5	4.7
9.	This experience allowed students to engage in activities that addressed community needs.	2	4.9

Table 2. Student and Provider Responses of Definition of Service- Learning

Student Responses (N=6):
Service learning is a way to work so that not only the community benefits, but students become better rounded by experiencing a new population. Both parties benefit.
Learning through helping others. Letting those in need guide our learning experiences.
Providing a needed service for a community and learning something at the same time.
Using resources I possess to meet others' needs.
A combined effort on both parts helping each other to achieve a goal.
Service learning is something by which skilled individuals go and address a community in need of help.
Provider Responses (N=7):
A very good tool.
Service learning is an exchange of thoughts, ideas, and feelings about how education participants (students) see the real world and exchange their thoughts, ideas, and feelings with those who provide direct practice/service.
A very good learning tool. Service learning was my favorite part of nursing school.
By engaging your skills in the community to better it.
Learning at community health centers.
Becoming aware of the needs of a certain population groups through meeting the needs of that group.
Knowledge gained by assisting needy persons with tasks they themselves are unable and/or unavailable to accomplish at the time the service is rendered.

