Quality Improvement at Kamuzu Central Hospital
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Introduction
A two-part learning experience, the Global Health Initiative included a week of research classes at the School of Medicine in Blantyre, Malawi. Under the tutelage of Dr. Steven Meshnick, Malawi and UNC students were grouped together to write a grant proposal to address a Malawi Public Health problem.

In the second phase of the initiative, students executed a research project. This quality improvement (QI) project was carried out in the Malawi health care system at Kamuzu Central Hospital (KCH) in Lilongwe, Malawi. A Plan-Do-Study-Act (PDSA) model was taught to the staff and used to carry out a wound care improvement project.

Research Classes
In the first week of the Global Health Initiative, the research group identified the top Malawi problems then addressed male presence at delivery and discussed problems with decisions and maternal support. A survey intervention was proposed to probe for cultural, environmental, and administrative issues surrounding the problem.

QI Project
Background
Kamuzu Central Hospital provides a rich atmosphere for nurses to study quality improvement. The Malawi work force is compromised by a shortage of nurses, limited funding, fragile infrastructure, and a labor-intensive patient population. This study was based on Berwick’s statement that to create great health we must create great systems of care. [1] To achieve results, there must be a way to improve the current way of thinking or acting. [2] It uses the Plan-Do-Study-Act method to produce results. The goal of this project was to teach and undertake a PDSA for one small improvement.

Diagram 1: PDSA Cycle [2]

Materials and Methods

Approval
Barriers to entry were an unplanned element in the study. Nine levels of approval were expected from the hospital and school. To expedite the project, Dr. Chrissie Kaponda at the Kamuzu School of Nursing issued a letter of recommendation.

Setting:
The PDSA took place on a 64+ bed Orthopedic/ Trauma surgical unit at KCH. Five nurses, two nursing assistants and a wound care technician staffed the unit each week. Bedside family caregivers provided most physical care. Student nurses performed many tasks and were responsible for a project to improve nursing care.

Teaching:
Staff and students were shown a PowerPoint presentation on the PDSA quality improvement process. Diagram 1.

Problem Identification:
Diagram two shows identified system problems. Although documentation and task reassignment are special areas of concern; the staff chose wound care for the PDSA cycle.

Diagram 2: Areas of need

Results
First PDSA
Plan: Research problems.
Do: Survey staff as to problem of choice.
Study: Evaluate the solutions used in wounds.
Act: Present alternatives to all the staff.

Second PDSA
Plan: Research the use of lactated ringers, chlorhexidine, and normal saline. Make saline in unit sterilizing equipment.
Do: Obtain salt and equipment. Use saline for wound care.
Study: Difficulty in making saline delayed wound care. Chlorhexidine used.
Act: Wound care counts--26 patients first day, 15 patients the second dau used chlorhexidine, one with normal saline.

Future PDSA
Plan: Staff will make normal saline when out of stock.

Conclusion
KCH has many areas of need that can be effectively addressed with a PDSA quality improvement model. The nursing staff of the Orthopedics/Trauma unit and the Kamuzu School of Nursing now demonstrate basic knowledge and application of the model. They have generated a list of problems for nursing students and staff to tackle.

References


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