Going Forward: After three years, MentorNet has proven to be a valuable initiative for supporting Canadian SYPs to become leaders in global health. Moving forward, MentorNet aims to continue fostering mentorship relationships that are beneficial to both mentors and SYPs

Funding: None.

Abstract #: *01ETC021*

Identifying gaps in clinical nursing and midwifery research in African countries: Making a way forward with sustainable mentorship

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Program/Project Purpose: Worldwide, nurses comprise the largest proportion of health care professionals and are the backbone of health care systems. To address the large global health disparities, the development of a robust nursing profession needs to be a critical goal in countries and regions with minimal human resources for health and huge disease burden. The African region bears 25% of the disease burden and only 1% of healthcare workers. Many gains have been made in nursing/midwifery clinical practice, such as nurse-initiated and managed care in sub Saharan African countries, and in competency-based nursing education to increase the quantity, quality and relevance of new graduates. Increasing the depth and quality of nursing research is central to validating outcomes of nursing care provided. This requires research expertise to collect and critically analyze data and identify priorities and gaps for improved clinical practice.

Structure/Method/Design: In collaboration with Columbia Global Center/Africa, the Forum of University Nursing Deans of South Africa (FUNDISA), the University of Malawi/Kamuzu College of Nursing, and the University of Nairobi School of Nursing, the Columbia University School of Nursing is helping to build a cross-regional core group of nurse and midwifery leaders and researchers in Sub-Saharan African countries. Methods include conducting a scoping review, an environmental scan, Delphi survey and network analysis.

Outcomes & Evaluation: An initial scoping review of all published research in African countries by nurses regarding clinical practice was conducted in fall 2014 as well as a survey to determine what networks exist formally and informally amongst nurses/midwives involved in clinical research. The collaborative group is also developing a database of nurse and midwife leaders involved in regional research and program evaluation; performing an environmental scan; conducting a Delphi survey to develop consensus on research agenda; and carrying-out a network analysis. This will culminate in a regional research summit in June 2015 to reach consensus on gaps in knowledge and priorities for nursing and midwifery research to address essential population health needs. The group will also develop an implementation plan to support nursing and midwifery research with mentorship strategy.

Going Forward: We are engaged in the development of sustained networks of nurse and midwifery researchers in Sub-Saharan Africa as a central component to strengthen the impact of nurses and midwives at frontline clinical arena. This will be adapted and replicated with Columbia Global Center/Jordan and nursing researchers in its region. Strengthening and expanding research under the leadership of nurses and midwives engaged on the ground will improve clinical care and communities' health at this critical time.

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Abstract #: *01ETC022*

Nutrition education for newly arrived refugees in Tucson, Arizona: Mixed methods evaluation as education

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Program/Project Purpose: The International Rescue Committee (IRC) of Tucson, Arizona aims to prevent food insecurity by targeting newly arrived refugees through nutrition education focusing on food availability and access. Refugees face challenges of a low income, a different food environment and learning another language that increase a refugee's chances of experiencing food insecurity. The Nutrition Education program is a three month program with three knowledge modules at 2 weeks, 6 weeks and 8 weeks led by an IRC intern, accompanied by an interpreter. The objectives were to develop, coordinate and evaluate the IRC's Nutrition Education program.

Structure/Method/Design: The development of the program included reviewing other food security programs currently utilized with refugees, conducting interviews and observations, as well as involving refugee participants to assist in developing the Nutrition Education Program with a focus on maintaining culturally appropriate foods. The evaluation utilized a mixed methods approach of pre and post surveys with refugee clients, participant observations, semi-structured interviews with key IRC employees, focus groups with refugee clients and interpreters that participated in the Nutrition Education program from January to August 2013. Data were collected to measure knowledge retention of healthy vs. unhealthy food, food safety, hygiene and proper storage, as well as participant satisfaction of the program.

Outcomes & Evaluation: Nutrition Education Curriculum to decrease food insecurity was developed, pilot tested and implemented for 6 months prior to the evaluation. Survey results show an increase in having enough food to last for three days and knowledge regarding nutrition labels. Refugee and interpreter focus groups indicate positive perceptions of the Nutrition Education program, a need for pre-teaching certain topics before going to the grocery store, and to explain SNAP and WIC benefits in more detail.

Going Forward: Recommendations have been made to improve the curriculum, including assessing prior knowledge before teaching each module, pre-teaching specific concepts before going to the grocery store and developing a WIC specific module as well as incorporating language appropriate handouts. To continue this program and have it be sustainable the evaluator suggests that the implementers of the program should be shifted from IRC interns/volunteers to CHWs (Community Health Workers) that are currently employed by the IRC. The CHWs are previous refugees themselves and would provide a better cultural liaison than the intermittent IRC interns.

Funding: IRC funded the interpreters for their time contributed to this project.

Abstract #: *01ETC023*

Evaluating the effects of organizational and educational interventions on adherence to clinical practice guidelines in a low resource primary care setting in Kenya

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Background: In Kenya, adherence to internationally recognized clinical quality guidelines remains low in inpatient settings (Mwaniki

et al., BMC Health Services Res 2014), with a dearth of literature on adherence to best practices for outpatient encounters. Both private and public outpatient clinics utilize clinical officers (COs), non-physician healthcare providers that complete three years of clinical training and a one-year internship, to deliver health services. Interventions to increase midlevel care providers' adherence to clinical quality guidelines could lead to substantial improvements in the standard of primary care. The aim of this study was to better understand factors that influence the uptake and adherence to clinical quality guidelines by midlevel care providers.

Methods: The study was carried out in three Penda Health outpatient clinics around Nairobi, Kenya. Penda Health is a chain of private outpatient clinics that delivers comprehensive primary care services to low and middle income Kenyans using midlevel care providers, servicing approximately 2,000 unique patient visits per month. In 2014, we developed 17 clinical quality guidelines based on internationally recognized best practices across four health areas: urinary tract infections, vaginal discharge, tonsillitis and childhood diarrhea. COs received interventions to increase adherence to these guidelines, including: 1) An online educational module assigned to each provider; A mandatory 2 hour educational and training session; 3) System changes; and 4) Monthly feedback with each provider. This quasi-experimental, longitudinal study took advantage of this new protocol set-up at Penda to track adherence and performance to Penda clinical quality measures (CQMs). Relevant data were Abstracted from patient medical charts to develop CQMs. Demographic and professional information was also collected on each provider. Penda employs temporary COs that are not permanent Penda staff, and were not subject to the study treatments. The locums, therefore, acted as a natural control group. Multivariable logistic regression and interrupted time series analysis are being used to determine whether the intervention had a significant effect on adherence, and, if so, at what point in time this effect occurred.

Findings: Preliminary analyses indicate a significant increase in adherence to CQMs over the study period, with full-time Penda COs exhibiting a higher odds of adhering to guidelines than locums. Final results, and a discussion on the factors that prove to be the strongest predictors of adherence, as well as a formative evaluation of the interventions themselves, will be presented.

Interpretation: Simple interventions related to clinical education, CQMs, and organizational process changes can improve adherence to clinical quality guidelines in a resource-limited setting.

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Abstract #: *01ETC024*

New medical schools in Africa – challenges and opportunities CONSAMS and the value of working in consortia

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Program/Project Purpose: Context Africa bears 24% of the world burden of disease but has only 3% of the global health work force. Health worker capacitation to cope with this burden of disease is therefore a priority. This goal is best achieved by establishing new medical schools to graduate more healthcare workers. By some estimates over hundred new medical schools will open in Africa over the next decade. Whether these new schools will be capable of sustaining themselves remains uncertain Program/Project Period CONSAMS —the Consortium of New Southern African Medical Schools — represents such a consortium. Currently comprised of 5 new southern African medical schools of less than 5 years since opening (in Namibia, Zambia, Mozambique, Lesotho and Botswana and two Northern partner schools at Vanderbilt University in the USA and Oulu University in Finland). Why the program/project is in place, in one or two sentences A seminal Lancet report of 2010 (Frenk et al.) suggested that resource-constrained medical schools can best achieve sustainable capacitation by collaborating within "networks, alliances and consortia" to share ideas, faculty, resources and innovative programs. Aim We describe here some of the challenges and opportunities facing new schools in Africa and present a case for the value of working together in consortia like CONSAMS

Structure/Method/Design: Program/Project Goals, Desired Outcomes Through joint meetings and numerous regional exchanges between partner schools CONSAMS has implemented several successful context-appropriate educational strategies and programs aimed at health care strengthening and health worker capacitation. Participants and Stakeholders: How were they selected, recruited? Partners were brought into CONSAMS as medical schools known to be less than 5 years old since opening and through shared interests and determination to meet challenges and opportunities. Capacity Building / Sustainability: What is the plan, structure in place to encourage viability? The Consortium is sustained through regular meetings, through south-south and north-south sharing of faculty, programs and innovations. Other new African medical schools are being invited to join.

Outcomes & Evaluation: To date, what are the successes and outcomes achieved? Opportunities identified and achieved include: (1) Development of innovative context-based medical curricula; (2) Sharing of limited resources and pedagogical innovations with partner schools; (3) Faculty and student exchanges between schools; (4) Development of regional accreditation standards; (5) Submission of Consortia-wide funding applications

Going Forward: What are the ongoing challenges? Challenges identified for new medical schools in Africa include: (1) Curricula unsuited for the African context — either outdated or obliviously imported from Western medical organizations; (2) Faculty shortages, lack of faculty development and continuing medical education (CME) programs; (3) Lack of postgraduate training programs; (3) Uncertainties about sustainable government funding and strategic planning for medical school development; (5) Inequitable student admissions policies favoring affluent urban applicants over disadvantaged rural applicants that fail to promote physician retention. Are there any unmet goals? To effectively achieve health worker capacitation in Africa scores of new medical schools are being established throughout the continent. The success of these new schools is not guaranteed as they face many challenges.

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Abstract #: *01ETC025*

Mitigating the digital divide: Access, attitudes, and training in information and communication technologies among medical students at University of Zimbabwe College of Health Sciences, Harare, Zimbabwe

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