FAIRE UNE DIFFÉRENCE : UTILISER LA LISTE DE VÉRIFICATION POUR UNE CHIRURGIE SÉCURITAIRE AFIN D'INITIER LA FORMATION CONTINUE DES INFIRMIÈRES EN SOINS PÉRIOPÉRATOIRES DES MILIEUX À FAIBLE REVENU

Auteure : *Genelle Leifso, IA, M.Sc.Inf. a en quelque sorte pris sa retraite en septembre 2011 afin de pouvoir dire « oui » aux occasions présentées dans cet article qui s'offraient à elle à l'international. Elle maintient sa crédibilité clinique en continuant à travailler, de façon régulière, au sein de plusieurs cadres périopératoires et continue à participer à l'éducation de la future génération d'infirmières et d'infirmiers en soins périopératoires du Canada à titre de membre contractuel du corps enseignant pour le programme spécialisé en soins périopératoires de l'Institut de technologie de la C.-B. Elle est membre de la Canadian Association of International Nursing, de la BC History of Nursing Association, de la Perioperative Registered Nurses Association of BC, de Sigma Theta Tau International et siège au conseil d'administration du Canadian Network for International Surgery.*

Les normes de l'AIISOC relatives à cet article figurent dans la publication Normes de l'AIISOC pour la pratique des soins infirmiers périopératoires (11e édition) de l'Association des infirmiers et infirmières de salles d'opération du Canada (AIISOC) d'avril 2013, section 1, pp. 29 à 32 et section 3, p. 157, normes 3.2.6 et 3.3.1.

RÉSUMÉ :

La priorité donnée à la sécurité du patient et aux messages de communication tirés de la Liste de vérification d'une chirurgie sécuritaire de l'OMS (2008) sont largement acceptés. Dans plusieurs régions à faible revenu (tel que défini par la Banque mondiale et accepté par l'Organisation mondiale de la Santé), les infirmières en soins périopératoires ne possèdent que peu ou pas de formation officielle; la formation continue et en cours d'emploi sont pratiquement inconnues et aucune « culture de la sécurité » articulée n'existe.[1,2,3]

En 2009, le Canadian Network for International Surgery (CNIS) a testé un cours en soins périopératoires de deux jours à Addis-Abeba, en Éthiopie, dans lequel on exploitait les cours magistraux, les études de cas, les séances sur les compétences et les exercices de jeux de rôle basés sur le plan et les protocoles de la liste de vérification Les chirurgies sécuritaires sauvent des vies. Des instructeurs canadiens (ayant obtenu leur certification après avoir suivi le cours à l'intention des instructeurs parrainé par le Canadian Network for International Surgery) sont depuis ce temps revenus et ont enseigné à d'autres endroits en Éthiopie et en Ouganda. Parmi les participants au cours, nous retrouvons des infirmières en soins périopératoires, des anesthésistes et des résidents novices en chirurgie – reflétant le travail d'équipe interdisciplinaire qui est essentiel aux soins périopératoires sécuritaires apportés au patient. Les discussions animées du cours sont axées sur des questions dans le domaine du travail et de la pratique afin de permettre une évaluation et une planification appropriées des initiatives pédagogiques futures. Les participants remplissent des questionnaires avant et après le cours, qui évaluent leurs connaissances de base et leurs connaissances après le cours, puis un suivi est effectué quatre mois après la fin du cours.

Cet article explique le besoin qu'il y a à apporter de l'aide pour le développement des connaissances et des compétences en soins infirmiers dans les milieux à faible revenu. Il propose également le point de vue de l'auteure ainsi que son expérience à répondre à ce besoin. On y décrit son expérience à titre d'animatrice dans le projet pilote et pour le développement subséquent du cours. L'objectif de cet article est de discuter des façons dont les autres infirmières en soins périopératoires peuvent travailler pour faire une différence positive sur la pratique professionnelle et les soins apportés au patient dans les régions à faible revenu.

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KEYWORDS: SAFE SURGERY CHECKLIST, PERIOPERATIVE NURSING EDUCATION, AFRICAN PERIOPERATIVE NURSING, INTERNATIONAL NURSING, LOW ECONOMIC/LOW INCOME HOSPITAL SETTINGS.

MAKING A DIFFERENCE: USING THE SAFE SURGERY CHECKLIST TO INITIATE CONTINUING EDUCATION FOR PERIOPERATIVE NURSES IN LOW-INCOME SETTINGS

Author: *Genelle Leifso RN, MSN 'sort of retired', in September 2011, so that she could say 'yes' to the international opportunities described in this article. She maintains her clinical credibility by continuing to work, on a casual basis, in several perioperative settings and remaining involved in educating the next generation of Canadian perioperative nurses as contract Faculty for the BC Institute of Technology Perioperative Specialty Nursing Program. She is a member of the Canadian Association of International Nursing, BC History of Nursing Association, Perioperative Registered Nurses Association of BC, Sigma Theta Tau International and serves on the Board of the Canadian Network for International Surgery.*

This article explains the need for aiding in the expansion of perioperative nursing knowledge and skill in low-income settings and provides the author's personal perspective and experience in responding to this need.

ABSTRACT:

The WHO *Safe Surgery Checklist* (2008) patient safety focus and communication prompts are widely accepted. In many low-income regions (as defined by the World Bank and accepted by the World Health Organization) perioperative nurses have little or no formal training; continuing and in-service education are virtually unknown; nor does an articulated "culture of safety" exist.[1,2,3]

In 2009 the Canadian Network for International Surgery (CNIS) piloted a two-day perioperative nursing course, in Addis Ababa, Ethiopia, using lectures, case studies, skills sessions, and role-play exercises based on the SSSL Checklist outline and protocols. Canadian instructors (who are certified after taking the Canadian Network for International Surgery-sponsored Instructor's Course) have since returned and taught at additional sites in Ethiopia and Uganda. Course participants now include perioperative nurses, anaesthetists, and junior surgical residents – mirroring the interdisciplinary teamwork that is crucial to safe perioperative patient care. The course's facilitated discussions focus on workplace and practice issues in order to allow for appropriate evaluation and planning of future educational initiatives. Participants complete pre- and post-course questionnaires, which evaluate baseline and post-course knowledge, and further follow-up is completed four months after course completion.

This article explains the need for aiding in the expansion of perioperative nursing knowledge and skill in low-income settings and provides the author's personal perspective and experience in responding to this need. Her experience as facilitator in a pilot project and subsequent course development is described. The objective is to discuss ways that other perioperative nurses can work to make a positive difference on professional practice and patient care in low-income regions.

INTRODUCTION:

As a post-graduate student, I had the honour of meeting, on several occasions, Helen Mussallem (1915 - 2012), a Canadian nursing icon who was the first Canadian nurse to receive a PhD. She

Practicing the SSL Checklist in Gondar, Ethopia

was passionate about the need to improve nursing education in Canada. During one visit I asked her how she reflected on her nursing practice. I expected she would share some scholarly approach but she, in fact, told me, "At the end of each day I ask myself, what did I do today that made a difference?"

I thought a lot about her words. Some days I felt I made a difference and some days I did not feel that way. I had the same mixed emotions when reflecting on the humanitarian surgical "missions" in which I had participated. I found myself unsettled by the lack of interaction with local perioperative/theatre nurses and impact on their everyday nursing practice during these trips. It brought to mind the Chinese proverb "Give a man a fish and you feed him for a day. Teach a man to fish and you feed him for a lifetime."

I was searching for another way to make a difference to professional practice and patient care in these low-income environments. Low-income environments are defined, by the World Bank and accepted by the World Health Organization, as countries where the per capita gross national income is $1,035 "international dollars" annually or less. International dollars are a designation used by the World Bank to evaluate one's purchasing power in that country in relation to that of a U.S. dollar in the United States.[1,4] While humanitarian aid in these settings is important, and worthwhile, I came to personally believe that providing **development** assistance was essential for sustainable change.

The Need:

The Canadian Network for International Surgery (CNIS), founded in 1995, is a non-governmental, non-profit organization that sends volunteer Canadian surgeons and obstetricians to Africa. Their goal is safer surgery, obstetrics, and communities in Africa (as well as other low-income settings, like Haiti and Guyana) and their mandate is to share skills with colleagues in these locations who are then able to pass the knowledge on to medical students and other healthcare trainees.

The perioperative environment is, however, one where skilled teamwork is essential. The CNIS recognized that nurses working within these surgical teams, in low-income settings are often lacking the basic skills and training that are considered standard in higher-income regions. This is because perioperative nurses in many low-income settings have little or no formal training. A 2005 issue paper, prepared for the International Council of Nurses, reported that only three African countries had formal post-basic perioperative nursing training programs – South Africa, Ghana, and Nigeria.[2] Of course, some degree of exposure to perioperative nursing practice and principles may take place during the basic nursing education provided by individual hospitals or programs. In such situations, however, evaluation of educational standards is difficult to achieve.

Following a 2007 CNIS-sponsored forum in Vancouver, that explored this need, discussions occurred with a core group of Vancouver perioperative nurses who had attended the event and with CNIS leaders. Later, following the introduction of the World Health Organization's "Safe Surgery Saves Lives (SSSL)" initiative in 2008, it was suggested that a perioperative nursing workshop, using the WHO Checklist, would help introduce African participants to a culture of safety within their operating rooms (OR). It would also allow for the gathering of information about local African perioperative practice problems and help identify potential local leaders to be involved in future educational initiatives.

Skilled communication and effective teamwork are key to providing safe patient care in the OR.[5,6] The WHO Checklist provides a tool whereby all surgical team members engage in a conversation, focused on providing safe perioperative patient care, while addressing key concerns related directly and specifically to the care of the individual patient.[7] But as a casual observer in a low-income setting OR, it was my perception that that these were hierarchical, patriarchal practice environments where collaboration between the perioperative nurse and the rest of the surgical team is uncommon.

The Pilot:

The 2009 pilot project (consisting of two workshops) took place at the Black Lion Hospital, a 560-bed university teaching hospital in Addis Ababa, Ethiopia, where a CNIS-funded surgical lab is located. Working with four Ethiopian nurses (a nurse anaesthetist, an OR head nurse, a staff nurse, and the CNIS skills lab manager), the two-day Safe Surgery Saves Lives (SSSL) Nursing Workshop, based on the Checklist components, incorporated lectures, case studies, skill sessions, role-play exercises, and group discussion.

In preparing the workshop material we were aware that, in Ethiopia, formal training for perioperative nurses did not exist. In addition it seemed that continuing and in-service education for perioperative nurses were virtually unknown. This personal perspective, based on observational experiences and close attention to conference speakers engaged in global surgery, was verified through consultation with professional colleagues (both surgeons and nurses) engaged in surgery in low-income settings. Further support for this perspective came from the perioperative nurses in the Addis Ababa pilot project.

Nor was there a "culture of safety" practiced at the Black Lion Hospital (which would be evidenced by compliance with the safety parameters identified in the Checklist). While hospitals and professional organizations have endorsed the use of the WHO Safe Surgery Checklist this doesn't mean that its practice has been embraced by all local surgeons or practiced consistently by the surgical teams.8

I communicated and consulted with these local nurses who compiled and presented the majority of the workshop content – with organizational support and funding provided by the CNIS. The workshops were presented successively which allowed the presenters an opportunity to test their presentations during the initial workshop and refine their materials for the second one.

As a perioperative nursing educator, my role was that of a content expert. I provided assistance and feedback in developing, and later improving, the presentations, offered encouragement to the local nursing leaders who were presenting, assisted with case study development, and

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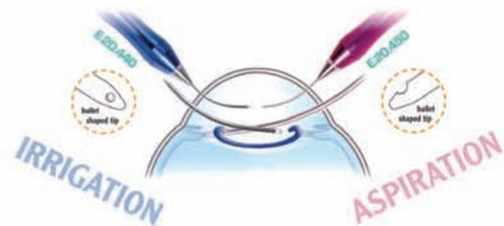

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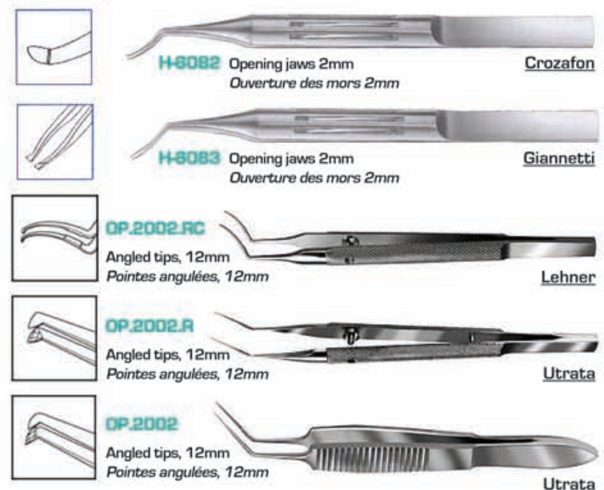

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Practicing "Before Induction" role play exercise in Addis Ababa, Ethiopia

suggested strategies to foster interactive learning. The local nurses and the nurse-anaesthetist also invited me to offer practical examples to the group and to share comments based on my own perioperative practice experiences. My goal was to help them focus on the basic principles that are the key to safe patient care in any practice context. As an example, recognizing and practicing asepsis and sterile technique are fundamental to any surgery. And so we spent time focused on the correct way to perform a surgical scrub and how to don sterile gowns and gloves using the closed-gloving method.

I debriefed with the presenters at the end of each day and worked with them to review the anonymous participant evaluations after each workshop. 59 theatre nurses and anaesthetists, in total, attended the two workshops and their evaluations were overwhelmingly positive. From an educator's perspective the attention, enthusiasm and participation of those in attendance was thrilling. They were particularly engaged during role-playing activities, participated eagerly in the discussions, and seemed to enjoy presenting their perspectives to the larger group when further discussion took place.

As a result of that experience I generated a lengthy post-workshop report. The Ethiopian nurses (with the assistance of Dr. Lett, the International Director of CNIS) used the report to develop a "14-Point Action Plan" targeting the following practices:

1. Surgical scrubbing;
2. Patient temperature monitoring;
3. Patient identification;
4. Surgical count and documentation;
5. Preoperative antibiotic prophylaxis;
6. Preoperative hair removal (shaving);
7. Surgical masks – types and use;
8. OR ventilation;
9. OR environmental cleaning;
10. Surgical site infection (SSI) monitoring;
11. Decontamination & sterilization - packs/instruments;
12. Surgical sponge use – non-radiopaque;
13. Instrument maintenance & repair; and
14. Implementation of SSSL Checklist.

It had become apparent to me that basic elements of perioperative nursing and "best practices" were not clearly understood, nor did the nurses recognize why these practices are considered so important. This is not surprising given the fact that there had been no formal training to prepare perioperative nurses. New nurses may have had some guidance in theatre practices, provided by a local surgeon, or the new staff may have learned their surgical skills simply by shadowing someone with more experience. Such exposure can be disorganized or inconsistent depending on the clinical preceptor. I was told that this workshop was the first continuing education or professional development that many of these nurses had received since completing their nursing education (anywhere from six weeks to 30 years previously).

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The Black Lion Hospital was not unique in this regard. Based on my subsequent experience at other sites in Ethiopia and Uganda where the SSSL Course has since been taught, these issues seem common in low-income settings.

The 14-point Action Plan was presented to the Black Lion Hospital's Chief of Surgery several months after the workshop. The Action Plan has not, however, been shared or implemented in the four years since it was presented. In spite of the fact that the pilot workshop had been presented to the majority of the Black Lion Hospital OR nursing and anaesthetist staff, no long-term change took place. Canadian nurses, involved with subsequent projects at the Black Lion Hospital, have confirmed this to me.

The Strategy:

Everyone involved in the pilot felt the dissemination of knowledge was very important. In order to share our experiences and recommendations my Ethiopian colleague, who had been involved in presenting a workshop, submitted an abstract, on this pilot project, to the local Surgical Society meeting but it was not selected. I also, on behalf of those involved in the pilot project, submitted similar abstracts in 2010 and was able to present at the Ethel John's Research Day in Vancouver and at the Bethune Round Table in Calgary (Canada's only conference dedicated to international surgery). Surgeons from Africa were present (including one from the Black Lion Hospital). They listened attentively and, in subsequent conversations, told me that they supported the recommendations.

Surgeons from various other hospitals in Ethiopia and from other parts of Africa

began to request this course following the Bethune Round Table exposure. It was my belief that the Ethiopian nurse leaders lacked the "expert" knowledge, confidence, and support to carry this initiative forward and advocate for practice improvements associated with the WHO Safe Surgery Checklist. For the project to move ahead it required preparation and support from those Canadian perioperative nurses who were willing to aid in empowering and building local capacity in Africa.

During 2010 I prepared the SSSL course materials for prospective Canadian instructors, providing resources that would enable expert Canadian perioperative nurses to skillfully deliver this course content (in which all principles taught are supported by the current ORNAC Standards) in a low-income setting. These resources, that include an instructor's manual and CD with PowerPoint presentations augmenting each lecture, are introduced, explained, and used in practice sessions during the interactive SSSL Instructors Courses. Certification through the Instructors Course is required to use and teach CNIS-sponsored curriculum. I also prepared an accompanying student manual for distribution to SSSL course participants. These tools enabled use of the "train-the-trainer" model that CNIS has successfully employed to deliver other structured courses in a variety of settings.

Although the course now looks quite different from the original pilot project, I very strongly acknowledge, to this day, the Ethiopian nurses who contributed to that endeavour. Today, In addition to explaining the importance of each of the Checklist components during the course, specific skills associated with safe patient care are also taught. These include cricoid pressure application and assisting with laryngeal maneuvering; surgical scrub, gowning, and closed gloving; performing a surgical count; and surgical specimen care.

The first (of five) Instructor's Course was held in Vancouver in October 2010. New instructors are, in keeping with CNIS practice, mentored while teaching for the first time in a low-income setting. SSSL courses are, in addition, only taught at the invitation of a local patron – commonly the head of the hospital's department of surgery.

And so, a participant from the first Instructor's Course came to Ethiopia with me in February 2011. We then taught three courses at the teaching hospitals in Gondar and Hawassa, both similar university-affiliated referral hospitals.

Gondar University Referral Hospital has 400 beds, four ORs, and conducts more than 6,000 surgeries and 2,000 deliveries annually. It is a teaching hospital that was built in the 1950s and now serves a population of five million people as the referral centre for four outlying district hospitals.

While Hawassa University Referral Hospital is a much newer facility, built in 2003, it also has a 400 bed capacity and four ORs. It is also a teaching hospital and is the major referral hospital for 13 district hospitals in the southern region of Ethiopia with a population of around 17 million people.

The Canadian instructors, prior to teaching the course at a site, are given a tour by the local head nurse or matron and allowed to observe surgical practices. This tour provides relevant contextual information and confirms that patient safety in these ORs can be improved. In Gondar and Hawassa, for example, some unsafe practices that were observed included patients not identified; surgical site marking not performed; and pulse oximetry not used for every patient undergoing surgery. The sterilization process and maintenance of instruments, anaesthetic equipment, and supplies also needed improvement.

Using the SSSL materials, the course was presented to a total of 54 theatre nurses and anaesthetists at the two facilities. The experiences at these hospitals was considered a replication project that, when evaluated, validated our original conclusions. We were able to confirm, as had been learned during the pilot project, that the Checklist could be used as the basis for perioperative nursing continuing

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education and provide a starting point for introducing participants to the idea of a culture of safety in their ORs.

But, "doing" the checklist doesn't mean that patient safety is assured. Fundamental problems became evident as the discussions explored local challenges (personnel and environmental issues) that did not support safe perioperative practice.

Hawassa, for example, had only one BP cuff, pulse oximeter, and suction for four ORs. Anaesthetists reported circulating this equipment between the ORs (trying to have it available during induction and emergence). In Gondar there was suction and BP cuffs in each theatre but only two oximeters for four ORs. The anaesthetists gave priority to paediatric and critically ill patients. These solutions, while creative, are fraught with potential disaster. The patient where no one expects difficulty can quickly run in to problems. This was critical information, for the instructors, as it not only helped to identify further educational needs and course requirements, but also allowed them to advocate for adequate supplies of these essential, basic monitoring tools being a priority over obtaining more sophisticated surgical equipment or supplies.

During the courses, potential perioperative nursing leaders were also identified, based on their observed ability to absorb, understand, and re-frame the material within the discussion groups, as potential champions for moving the practice issues forward. It was believed that these leaders could help with ongoing dissemination of this information and the delivery of future educational initiatives. We also learned that limiting the number of attendees to 20-24 per course was essential in order to support engagement and participation throughout the course.

When I expressed curiosity about how long an initiative like this might be needed in any particular practice setting, Dr. Lett informed me that, on average, only 30% of those who receive additional education or training are in the same practice setting three years later. They most often become economic migrants (seeking better opportunities, either within their own country or beyond its borders, and a better life for themselves and their families).[2] Therefore, it seemed that providing these Ethiopian perioperative nurses with ongoing support and encouragement would be necessary to facilitate change in their practice settings.

Mulago Hospital Nurses and Theatre Attendants who completed the SSSL Course, October, 2013.

Photo by/par N. O'Hare

A theatre nurse, in Uganda, is now teaching the surgical scrub, gown and closed glove technique she learned in the SSSL Course to nursing students preparing to visit the OR.

I maintained personal contact with the nurse leaders identified to work on the Addis Ababa pilot project and learned that within one year all of them had left the Black Lion Hospital, taking their knowledge and skill to other settings. When I returned to Gondar, in 2012, only three nurses of the 24 who had taken the course the previous year were still working in the main OR. When I asked what had happened to the other nurses I was told by those remaining that the other nurses left due to salary, workload, and quality-of-work/life issues. In addition, perioperative nurses are regularly reassigned to other hospital wards. Hospital administrators explained to me that Ethiopian nurses were "generalists" (not like the Canadian "specialists"). This offered an excellent opportunity to explain the need for nursing expertise in the complex perioperative care environment and to suggest that encouraging their nurses to use their increased knowledge and allowing them to remain in the OR could support safer and more efficient patient care during surgery.

As a perioperative nurse educator and nursing advocate, I have insisted that most of the course participants are nurses because of the disparity that exists in continuing education opportunities. Even a casual observer can see that many more opportunities exist for continuing education and professional development, both at home and abroad, for surgeons and anaesthetists than for nurses. Foreign surgeons travel for conferences or residencies while nurses rarely have this opportunity.

Still I recognize that providing safe perioperative care is a team effort. While the concept of "team training" is embraced in Canada, it is new to low-income settings like Ethiopia. When we deliver the course to an interdisciplinary group – comprising nurses, anaesthetists, and surgeons – I have learned that the opportunity to understand other perspectives and to practice appropriate communication is facilitated. Surgeons, residents, nurses, and anaesthetists must all embrace the importance of a culture of safety and be willing to recognize problems and work toward solutions. Team training can help this happen.[5]

As the course continues to be taught we welcome additional opportunities to share knowledge. These have included presenting morning sessions to surgical and orthopaedic residents on the Safe Surgery Checklist (and its supporting evidence), reviewing principles of asepsis with Ugandan 3rd year orthopaedic officer students, and teaching closed gloving to orthopaedic residents.

Course participants are also encouraged to share their knowledge. In an environment where nurses complain that they are not respected this encouragement can be professionally empowering. A theatre nurse, in Uganda, is now teaching the surgical scrub, gown and closed glove technique she learned in the SSSL Course to nursing students preparing to visit the OR. She uses information from the course manual to support this teaching.

As of October 2014 Canadian instructors will have taught nine SSSL Courses in Ethiopia and Uganda. It continues to evolve because of ongoing and increasingly rigorous evaluation. The inclusion of post-course coaching days was our first response to course participants' evaluation feedback. Participants now also complete pre- and post-course knowledge tests so that their level of understanding can be assessed immediately. Any misconceptions participants may have, as they put that knowledge into practice, is clarified during our coaching days.

After the Course:

During the course, participants collaboratively compile a list of low-cost or no-cost changes to their practice and environment that they are able to immediately initiate. This list is then presented to the head nurse who posts it in their unit to serve as a reminder of these goals. More recently participants have been asked to select two items on their list as the first priorities for change. Focusing on a few practice changes can be easier than considering many changes at once.

As a result we have learned that, following completion of the course, the perioperative nurses consider their practice to be more informed, patient-focused, and collaborative.

A debriefing takes place, at the conclusion of each course, with the course instructors and OR leadership (e.g. head nurse, chief anaesthetist, chief surgeon/course patron, hospital director). Positive and negative feedback are shared and positive change that has taken place since the previous course is highlighted. A detailed report is then provided to the funding organization to outline important practice problems that were identified during the course. Our recommendations focus on initiatives that involve low or no cost.

Further evaluation is then sought through telephone interviews or paper-based surveys. Four-months after the course completion, local coordinators contact course participants in an effort to learn, in more detail, how the course content and skills have changed their practice and what challenges they are experiencing in using this knowledge and skill. They are also asked to describe additional nursing education they would like to receive. This information is reviewed by the course instructors and collated by the CNIS evaluation coordinator and then stored by the CNIS.

As a result we have learned that, following completion of the course, the perioperative nurses consider their practice to be more informed, patient-focused, and collaborative. They begin to see themselves as making a stronger contribution to the surgical team. Comments have included the following:

"After the training, our team spirit became stronger when it came to sharing ideas and discussing surgical complications."

"Patients are prepared in time and we bring the correct patient for surgery now."

"I am aware of what might happen if something is not done."

"I became much more concerned about anticipated events. All in all, we started to plan and prepare ourselves for each surgery."

"It has saved the life of a patient."

"Because the operation room was new, the training taught us a lot of skills that we didn't have before (e.g. closed gloving, gowning)."

There are always challenges, in any environment, as participants attempt to enact their new knowledge and skills. Having course participants articulate these problems allows course instructors to address the issues in future visits. For example, participants reported "Our autoclave continues to break down which makes SSSL procedures difficult to follow." In each site, where I have taught, the decontamination and sterilization process has been problematic. Some of the problems I have observed include:

- Surgical instruments assembled and sterilized with "locked" jaws;
- Items removed from sterile sets with lifting forceps, whose sterility cannot be confirmed;
- Instruments sterilized in asculap pans with broken or missing hinges and no filters (or cloth filters that have not been washed);
- "Sterile" instrument pans with debris present – evidence of not having been cleaned between sterilization cycles;
- Cloth wrappers with holes or rips used to wrap surgical supplies for sterilization;
- Improper loading of sterilizers;
- Incorrect use of indicator tape (e.g. using ETO tape for steam autoclaved supplies);
- Used surgical equipment disinfected before cleaning;
- Inconsistent use of personal protective equipment when decontaminating used surgical equipment;
- Cautery cords soaked in Cidex for 10 minutes before introducing them to the sterile field; and
- Wet packs and instruments used in the sterile surgical field.

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Photo by/par G. Leifso

SSSL Instructors Course, Ottawa, April 2013

Proper sterile processing is a basic, non-negotiable, practice essential.[9] Addressing the issues, with those responsible at the local level, is vital and has been part of our debrief process at each teaching site. In Uganda we were invited to discuss these concerns with the hospital's practice leaders. After all we, as visitors, can share knowledge and make suggestions but it remains up to the resident professionals to make the essential changes to improve practices in their environment.

Perhaps you recall how negative attitudes towards the Checklist process challenged its adoption in your hospital. I believe that a personal outlook that values each team member, and the professional contributions that they make during surgery, is key to changing attitudes. I remind our students that no surgeon works alone – surgeons require the support of the team, including the anaesthetist and perioperative nurse, in order to operate. Safe patient care is a team effort and if any participant isn't practicing safely then the team will have difficulty delivering the care we want for our patients and that we would want for ourselves.

Emergency situations pose another challenge. Many participants report that the Checklist is not followed during emergency procedures because of time and staffing shortages. But it is precisely when critical events are occurring that errors are more likely to happen and when the use of the Checklist is especially important.[10]

> *"We are never justified in doing an unsafe thing to be more efficient."*
>
> \- Dr. Doug Cochrane, personal communication, September 19, 2012.

Perhaps the most valuable evaluation occurs when instructors return to the site to teach both new staff and to provide "refreshers" to those who have already taken the course. Without this first hand assessment the lack of progress in Gondar could be very discouraging. But given the lack of staff retention and the abandonment of the physical environment (because a new hospital is under construction) it was still obvious that some of the skills we had taught were being practiced. New nurses, who had learned the skills from their peers, were closed-gloving and were trying to use the count sheet and Checklist. We found this to be very encouraging. Our return visit also allowed us to correct some practices (e.g. cavity closure counts were not being done) and offer explanations to support the changes we wanted them to make.

Continuing the relationship with the nurses in Africa helps us to reinforce the importance of the course content and our commitment to our less-advantaged colleagues. They see many people come once, and never again, so it is often when we return that they really begin to listen and form a relationship that can be transformative.

Continuing the Work:

Obtaining funding for independent perioperative nursing initiatives is difficult. I have realized that working collaboratively with Canadian surgeons, who were already going to low-income settings, might make it possible to provide further perioperative nursing education. UBC affiliated surgeons have been going to Mulago Hospital, a 1500 bed National Referral Hospital in Kampala, Uganda for more than four years. They have taken Canadian nurses but have been unable to offer organized continuing education for the Ugandan nurses. Without this structured approach there has been little ability to track improved practice initiatives or to communicate between teams about nursing issues.

In response to concerns identified by perioperative nurses accompanying the

Imagine the impact on perioperative practice if all of the visiting teams of experts "sang the same song" while working with the same Ugandan nurses.

2012 UBC trauma orthopedic (USTOP) team, collaboration with CNIS was proposed. The plan involved offering the SSSL course to Mulago Hospital nurses beginning with those working in the ORs where the USTOP teams work.

The proposal was accepted and 24 Ugandan nurses attended their first SSSL course in September 2012. CNIS certified instructors reviewed the practice environment and then taught the course, subsequently providing ongoing mentoring and coaching to the Uganda perioperative nurses, while working with Canadian surgeons (who also had a teaching focus). A team approach to safe perioperative patient care was modeled, including consistent implementation of the WHO 2009 Checklist,[7] during their two-week visit.

Imagine the impact on perioperative practice if all of the visiting teams of experts "sang the same song" while working with the same Ugandan nurses. UBC surgical teams plan to continue working with Ugandan professionals for three more years. The course will be offered to those who have not taken it and practice audits, shared by the returning teams, will provide data regarding practice changes occurring as a result of the course content.

Initial data suggests that this collaboration is proving beneficial in providing both education and practice support. For more information on this perioperative nursing initiative see the USTOP Nursing reports which can be accessed through links at http://ustop.orthopaedics.med.ubc.ca/trip-reports. The success of this venture may serve as a prototype for partnerships, with other Canadian university-based surgical groups, whereby CNIS nursing courses can be included when they are teaching in low-income settings.

I believe that partnerships within the Canadian perioperative and educational community are essential if we are going to efficiently and effectively assist our less-advantaged colleagues. This not only expands our sphere of influence as perioperative nurses, but also demonstrates the collaboration that is so important to perioperative nursing practice. As a perioperative educator engaging in development work it would be unacceptably patronizing to suggest that poor practice is "good enough" in low-income settings. In discussion with hospital leaders and front line nurses I often summarize my comments by saying "It is never right to do the wrong thing. If "best practice" is not possible yet, what can be done to begin moving in that direction?"

As a result of this work more than 200 nurses, anaesthetists, surgical residents and orthopaedic officers have, to date, received both knowledge and practical perioperative skills training. But this project is far from finished! The SSSL Course is simply the first step. Additional courses will be written in response to the needs identified. While teaching in Mulago Hospital, for example, instructors identified critical issues with sterile processing. Following discussions with the Chief of Surgery he requested that further education pertaining to sterilization be provided to their nurses. Seminars on Asepsis and Sterilization were, as a result, prepared and attended by more than 110 Ugandan nurses. A course on Sterilization (applicable to low-income practice environments) is being planned and will be written in collaboration with practice experts.

It all started with an idea. And with the support of perioperative nurses and other medical professionals who knows where it will end! If you are interested in getting involved in this professionally

ORNAC Standards pertaining to this article can be found in the Operating Room Nurses Association of Canada (ORNAC) (April 2013) Standards, Guidelines, and Position Statements for Perioperative Registered Nursing Practice (11th edition). Section 1, pg(s) 28 – 31 and Section 3, p.144, Standards 3.2.6 and 3.3.1.

expanding and rewarding experience you can find more information at www.cnis.ca. Support is also welcome through donations, proposal of new projects, or even becoming involved as an instructor. I believe this is how we can all make a difference!

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