doi:10.5737/1181912x2031129134

## Schering Plough Lecture 2009

# The twinning experience: Meaning of an educational program for nurses in Kenya

**by Sherrol Palmer-Wickham, Kathy Beattie, Angela Boudreau and Margaret Fitch**

## Introduction

The International Society of Nurses in Cancer Care (ISNCC) has, as part of its mission, the goal of fostering the growth of oncology nursing in parts of the world where cancer nursing is not perceived as a specialty. The idea of "twinning" high-resource countries with middle/low-resource countries was proposed, as a potential strategy to the ISNCC Board for achieving this goal. The Odette Cancer Centre Nursing Division from Sunnybrook Health Sciences Centre stepped forward and indicated it would be a "test case" for this new twinning or partnership program. Based on several conversations between M. Fitch when she was President of ISNCC and D. Makumi, Aga Khan University Hospital in Nairobi, Kenya, an agreement was reached to work together. A proposal was then developed for submission to the International Union Against Cancer (UICC) to hold an oncology nursing workshop on chemotherapy administration in Nairobi. This was a first step in our twinning experience. This article describes the experiences of the four nurses from Odette Cancer Centre (who prepared and offered the program) and the nurses in Kenya (who helped to plan and participated in the program) in working collaboratively as "twins."

Both the World Health Organization (WHO) and the International Union Against Cancer (UICC) are predicting a significant increase in the incidence of cancer around the world unless action is taken to implement what is known about cancer control (**www.who.int**; **www.uicc.org**). The incidence of cancer is expected to increase by 50% by the year 2020. At least 70% of this burden of new cancer cases will be born by the middle/low-resource countries—countries that are least prepared and able to deal with the increased demand. Although African countries are planning and beginning to build cancer centres when they are able to do so, access by nurses to appropriate cancer nursing education remains a significant challenge.

In Kenya, nurse leaders are working to foster the growth of cancer nursing, as a specialty. One such leader is David Makumi Kinyanjui. David is the Manager of the oncology nursing program at the Aga Khan University Hospital in Nairobi. His vision for training in cancer nursing was the impetus for the submission of the proposal to UICC and the subsequent offering of the workshop about chemotherapy. The proposal outlined a working collaboration between nurses in Kenya and in Canada. Canadian/Odette Cancer Centre colleagues produced the curriculum and materials for a five-day workshop in tandem with Kenyan colleagues by communicating through email and teleconference. Upon arrival in Nairobi and learning more from our Kenyan colleagues, we found we began changing the focus of our teaching. The direct exposure to colleagues and their working situation in Kenya challenged us to adjust and adapt our assumptions, expectations and approaches, despite the fact we had tried to be sensitive to the cultural differences between our two settings before we travelled to Africa. This article is the story of our learning and the meaning of the program to the nurses in Kenya.

## Facts about Kenya: An understanding of the context before we left

Kenya is a country with a population greater than Canada's, a land mass 1/20 the size of ours, and 50% of the population living below the poverty line (i.e., $1 USD per day) (see Table 1). Kenya is a country of 225,000 square miles and a population of 35 million people. Regarded as the "Jewel of East Africa", the country has some of Africa's finest beaches, magnificent wildlife and scenery, and an incredibly sophisticated tourism infrastructure. One-tenth of the land in Kenya is designated as national parks and reserves. The more than 50 parks and reserves cover all habitats from desert to mountain forest, savannah to marine.

**Table 1. Population indicators: Contrasting Kenya and Canada (2009)**

| Indices | Kenya | Canada |
|---|---|---|
| Population | 39,002,772 | 33,487,208 |
| Median Age | 18.7 yrs | 40.4 yrs |
| Infant Births | 36.64/1000 | 10.28/1000 |
| Life expectancy at birth | 57.86 yrs | 81.23 yrs |
| 0–14<br>15–64<br>65+ | 42.3<br>55.1<br>2.6 | 16.1<br>68.7<br>15.2 |
| Infant Mortality | 54.7/l000 live births | 5.04/1000 live births |
| Death (crude) | 9.72/1000 | 7.74/1000 |
| Urbanization | 22% of total<br>4% change annually | 80% of total<br>1% change annually |
| Fertility rate | 4.56 children/woman | 1.58 children/woman |
| Literacy (15+ who can read/write) | 85.1% (male 90.6%; female 79.7%) | 99% (male 99%; female 99%) |
| Education Expenditures | 6.9% of GDP | 5.2% of GDP |
| Ethnic Groups | Kikuyu 22%<br>Luhya 14%<br>Luo 13% | British Isles origin 28%<br>French origin 23%<br>Other European 15% |
| Religion | Protestant 45%<br>Roman Catholic 33%<br>Muslim 10% | Roman Catholic 42.6%<br>Protestant 23.3%<br>Other Christian 4.4%<br>Muslim 1.9% |


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doi:10.5737/1181912x203129134

Although tourism is the country's largest earner of foreign exchange, agriculture is the bedrock of the economy with about 76% of the population living off the land. The main cash crops are coffee, tea, sisal, pyrethrum (perennial plants with daisy-like appearance and white petals used for making natural insecticides), and pineapples. To a lesser extent, fruit, cotton, tobacco, sugar cane, and flowers are also cash crops.

Kenya has a fascinatingly diverse population with 42 different tribes. Each has its own language and culture. The major tribes include the Kikuya, the Luyia, and the Luo. Perhaps the most well known are the tall red-clad Masai, who still lead a traditional seminomadic lifestyle of cattle herding along Kenya's southern border. The unique Swahili culture, a mixture of African and Asian, can be found along the balmy coast. Kiswahili (Swahili) is the official language of the country, but English is widely spoken.

When asked, few people say they are Kenyans first and foremost. Their identity comes from their tribe and their loyalty belongs first and foremost to their wives and children, and to brothers and sisters of the same mother. After that, comes a duty to siblings by other mothers (many people are still polygamous), to the extended family and, finally, to the clan and tribe. The tribal elders and chiefs act as judge, jury, intermediary, and guide. Their word is law and they are treated with enormous respect.

The religions in the country include 45% Protestant, 33% Roman Catholic, and 10% Muslim. Many people combine aspects of traditional religions with Christianity. In many parts of the country there is still a profound belief in magic. The local "witchdoctor"/herbalist will be consulted about curses and often, firstly, about other ailments. The physical ailments are handed over to Western medicine with increasing frequency.

Kenyan women, from all tribes, carry the vast majority of the workload. In addition to the care of the house, care of the family, cooking, cleaning, fetching water and firewood, they do some of the farming and house building. They are respected at home but, traditionally, have little say in public affairs. Few women have the opportunity for any but the most basic education, although a few have made it on to the first rung of the career ladder. If a woman returns or is sent back to her family, her husband may remarry, but she is unlikely to and will get no further support either for herself or her children.

There is an ever-growing trend of people moving from the countryside to the cities. As drought persists, farming is at risk and families cannot exist. However, moving to the city also has its drawbacks. At present, 1.5 million of the 3 million inhabitants of Nairobi live in slum conditions surrounding the city. Without running water, or electricity, whole families of 10 or 12 may exist in a one-room dwelling. Food is cooked over open charcoal fires. The main dish is ugali, a thick maize meal porridge normally eaten with a vegetable or meat gravy.

The major health challenge for the country is infectious diseases. At present, 66.2% of the country's mortality is a result of communicable diseases. The second leading cause is cardiovascular disease at 17%. Table 2 highlights the most common infectious diseases. HIV/AIDS is endemic, especially among the sexually active population. Table 2 also presents information contrasting salient societal indicators. In light of these pressures, it is difficult to have cancer seen as a priority for the Health Ministry and there is currently no national cancer policy or plan.

Cancer incidence is growing in this country, as it is in other parts of Africa. Cancer deaths accounted for 4.7% of the overall mortality in 2005 while they are projected to account for eight per cent by the year 2030. Table 3 presents the most common causes of cancer death. Cervical cancer in women and esophagus cancer in men are the most common causes. Cancer is diagnosed at Stage 3 and 4 for the majority of cancer patients.

Health services are developed in the main cities with both public and private facilities. However, cancer care is only available in the cities (the capital and, to some extent, three other cities), mainly in hospitals and a few private clinics. There is minimal cancer care in the rural areas. However, there are some palliative care services in some rural areas. Patients seeking health care in large cities or towns will receive a diagnosis on site and then be referred for treatment. More than 75% of patients in the country will not get a diagnosis on site and will be referred elsewhere for both diagnosis and treatment. Because of distances, infrastructure challenges and poverty, the majority of these patients do not bother to follow up on referrals.

All oncologists in Kenya are based in Nairobi (the capital city) and, for the most part, see all types of cancer patients. There are two centres (one private and one public) in Nairobi that offer radiation

**Table 2. Economic indices contrasting Kenya–Canada**

| Economic Indices | Kenya | Canada |
|---|---|---|
| Purchasing Power Parity | 61.5 billion | 1.3 trillion |
| GDP—per capita | $1,600 | $39,100 |
| Labour force | Agriculture 75%<br>Industry & Service 25% | Agriculture 2%<br>Manufacturing 13%<br>Construction 6%<br>Services 76% |
| Unemployment rate (2008 est.) | 40% | 6.2% |
| Population below poverty line | 50% | 10.8% (Canada does not have an official poverty line. This is cut-off low income calculation.) |
| HIV/AIDS adult prevalence rate | 6.7% | 0.4% |
| Living with HIV/AIDS | 1.2 million | 73,000 |
| Degree of Risk–Infectious Disease | High | Nothing listed |
| Food/ water borne | Bacterial and protozoal diarrhea, hepatitis A, & typhoid fever | |
| Vector borne | Malaria<br>Rift Valley fever | |
| Water contact | Schistosmiasis | |
| Animal contact | Rabies | |

**Table 3. Common causes of cancer deaths in Kenya (age standardized death rates per 100,000)**

| Men | | Women | |
|---|---|---|---|
| Esophagus | 35% | Cervix | 26% |
| Prostate | 22% | Breast | 13% |
| Stomach | 17% | Stomach | 10% |
| Liver | 15% | Lymphoma | 10% |
| Lymphoma | 15% | Liver | 9% |
| Colon | 8% | Ovary | 8% |

doi:10.5737/1181912x2031129134

treatment (cobalt machines) for the country with an additional four linear accelerators scheduled for opening in late 2010. Chemotherapy procedures vary from hospital to hospital in terms of who mixes the chemotherapy, where it is mixed, and under what conditions. Private hospitals tend to have pharmacists mix the drugs once the prescription is written. Doctors do the mixing themselves in a majority of institutions. Most hospitals—especially in public settings—do not have biological safety cabinets and it is not unusual to have the chemotherapy prepared in the ward. Ninety per cent of the chemotherapy is given via peripheral lines (central lines are widely used in ICU/ward settings for general medical non-oncology patients). Port A Cath/medi-port VAD are available in private hospitals—most patients are not able to afford them. Most of the common chemotherapy protocols are delivered (i.e., CHOP, R-CHOP, FOLFOX, FOLFIRI, ABVD, CAF, CEF, CMF, AC, ECF). In terms of supportive medications, the following are available: GCSF, neupogen and related products, granisetron, ondasetron, motilium, dihydrocodeine, morphine and NSAIDS. Unfortunately, morphine is not well used due to opiod phobia.

Inadequate resources, both financial and human, plague the health care system. There is no social medical care. Private insurance coverage exists for about 10% of the population. The majority of Kenyans seek subsidized health care in the overcrowded, poorly equipped, underfunded public hospitals.

Emphasis on oncology nursing and palliative care is just emerging. The nursing association sees oncology nurses as needing to have a wide scope of practice in order to work in outpatient, inpatient, and community settings. Nurses must be providers of holistic care, as well as a coordinator, consultant, counsellor, educator, researcher, leader and manager, and advocate for follow-up care. There is currently little opportunity for formal education in oncology nursing. Most preparation occurs in hospice or clinical settings, as part of institutional orientation/preparation of staff, and nurses have to leave the country for graduate study in the specialty. Plans are underway to build opportunities for oncology nursing study and a network of practitioners in cancer nursing is being started. There have been two national symposia held to date. At present, no oncology certification or licensure is available or required. Clearly, there is a need for more education to meet the growing demand for cancer care and nursing service.

## Hospital care in Kenya: Learning once we arrived

Nairobi is the size of Toronto, but does not have mass transit or expressways. There is one major street leading in and out of the city. Walking (often on unpaved pathways at the side of the street) and mutattos form the backbone of the transit system in Kenya. Mutattos are 13-person passenger vans that are licensed to individuals and travel certain routes delivering people throughout the city (often they carry many more than 13 individuals). Our hosts at Aga Khan Hospital provided a driver and car for us to travel to and from our hotel for the classes and our hospital visits. The driver made certain we were transported safely in the traffic congestion.

We learned there isn't publicly funded health care in Kenya. Some employees have health care coverage, but still pay for a portion of service when care is received. The remainder of health care in Kenya is pay per service. For many patients this can translate into "pay as you go" care. Individuals have to wait for treatment until they are able to pay for it, or they receive only what amount they can pay for at one time.

To help us understand the nursing challenges and differences from North American hospitals, our hosts at Aga Khan University Hospital chose three hospitals for us to visit. The three hospitals included: Kenyatta—publicly funded, Aga Khan University Hospital—privately funded, and the Kijabe Mission Hospital—mission funded.

Our first hospital visit in Nairobi was on Thursday morning the day after our arrival in Kenya. Our driver took us through the busy morning traffic to Kenyatta. On arrival, the tourist in all of us took over and we started to take pictures of this huge hospital and grounds. We were quickly approached by guards and told we could not take pictures in or around the hospital. We learned later that this was the result of poor press a year or two before. Kenyatta is a white stuccoed older cement block, large and rambling facility. Repairs are needed and it suffers from the challenges of trying to maintain and keep the building clean with limited resources. Rosalind, the charge nurse for radiation oncology at Kenyatta, was our escort during the visit to this public hospital. Prior to touring this facility, we learned the hospital has a bed count of 1,800, but a patient capacity of 2,500. Patients often share beds while others sleep on a floor mat underneath the beds. We waited to meet with the chief nursing officer and her deputy to receive approval and permission to tour the hospital. This was our first lesson in the hierarchy and protocol of Kenyatta.

This hospital has the only publicly funded radiation machines in Kenya. Rosalind and the staff of the radiation department were very proud to show us their two Cobalt machines with duct-taped doors included. The radiation machines work around the clock and, because of the constant demand and age, they break down frequently. Repairs can take weeks. Patients and families can walk for days and weeks to arrive at Kenyatta and receive treatment. Families may end up sleeping on the hospital lawns. The two areas that were most memorable were the pediatric oncology ward and the outpatient chemotherapy clinic.

The pediatric unit was primarily an open concept and had facility for 14 to16 children. Personal Protective Equipment (PPE) for the staff meant protecting themselves from chemo with sleeveless cloth aprons. There was a medication room in which medications were mixed, hand-written charts for compatibility and a locked medication fridge. Observing the number of children with amputations sitting in wheelchairs and those with enucleations told us the high incidence of infectious disease, retinoblastoma, and sarcomas. The surgical interventions were a result of later stage of diagnosis. This sad fact was confirmed the next day when we learned the majority of patients are end stage when diagnosed and treatment is started. We noticed especially one young, withdrawn and very sad-looking little boy who, staff explained, was waiting for his mother to visit. Nursing staff explained

**Kenya oncology nursing workshop at Aga Khan University Hospital, April 20–24, 2009.**

doi:10.5737/1181912x203129134

that parents sometimes make the decision to leave children in the hospital throughout the course of their chemotherapy treatment because the parents know the young patients will be cared for. Caring for an ill child at home can be very difficult and travelling back and forth may be so difficult and costly that it is an impossibility. Often, there are other children at home who need attention. We left colouring books, crayons, pens and pencils for these children and each of the children's units we visited.

In the chemo unit, a large ward-like room had pharmacists mixing chemotherapy on a table, wearing PPE of gown, masks and gloves. In the same room, doctors wearing gowns, mask and gloves injected red chemotherapy (most likely Adriamycin) into an intravenous site in the dorsum of the patients' arms without a free-flowing intravenous. In the adjoining room that looked like a receiving area, patients sat on wooden benches to receive infusions. One lady with an amputation hopped over to one of the two available beds to lie down after her chemo dose (retching as she lay down). Rosalind shared with us that nurses who have had the opportunity to be trained and learn specialized skills in other countries were often not able to use their skills and have their expertise recognized in some hospitals upon their return. We met palliative nurses who struggled with patients' inability to purchase drugs and the education still needed to support appropriate narcotic ordering. As we toured a palliative ward, we met patients and their families who often stay to take care of them. We also saw a biological safety cabinet in one of the rooms. It had been there for five to 10 years but, unfortunately, no one could remember it ever working or being used. Throughout our tour and interactions with staff members, the staff was welcoming and the patients and families were proud of their nurses and hospital.

Our second hospital visit was to the Aga Khan University Hospital, a privately funded institution, supported by the Ismaili Muslim organization. This 280-bed facility was the most westernized of the hospitals we visited. It is a red brick building with several additions, the latest of which is a cardiac and oncology centre that will include four radiation bunkers, opening in 2010. Private funding allows floors that provide basic level accommodations and those that provide executive suites with all the levels in between. The executive suites allow for private accommodation for both patient and family member. There is a business centre on the unit for patients to continue their daily business. Aga Khan provides chemo in an ambulatory chemo clinic. Mixing of chemo was done by trained pharmacy staff with an outside vented Class II biological safety cabinet. Still, despite the level of resources available, nurses have challenges providing care to patients. Sometimes they have to wait until patients can afford the cost of the drugs to give chemo. One story we heard was of an 11-year-old boy who died in the time nurses sought financial support to have him admitted to hospital. Resources for ostomy teaching and related patient supplies are limited. Diagnostic imaging machine repairs have been delayed with South Africa being the main contact for repairs. Aga Khan is developing relationships with other countries to support the development of independence in medical imaging.

To see our third facility, we travelled north of Nairobi in a van belonging to the Kenyan Nursing Union Association to the Kijabe Mission Hospital. Kijabe is a small town and sits on a fertile slope of Africa's Great Rift Valley. The Kijabe Mission Hospital is funded by donations. The facility itself is open (you can feel the breeze blowing through), and was well kept with lovely grounds. It has a school of nursing, eye clinic and a separate children's hospital on site that specializes in surgical repair of birth defects. Visiting doctors travel to this hospital in Kenya bringing with them North American and British medical treatment practices. The hospital laundry had sheets hanging to dry on the clotheslines the day we visited. Naomi, our host and guide, worked as a palliative care nurse, part of the newly established palliative care team. At Kijabe, ordering morphine and other narcotics was accepted as appropriate when required by patients. There are separate wards for men and women. When we told the nurses that in Canada we have separate rooms for men and women, but do not separate the genders by ward, they looked sceptical. Patients' families come and do clothes washing for the patients and, if there are children, they often stay on the grounds. Public education groups meet for antismoking, HIV, and new mothers support. Patients may travel to Nairobi (an hour south of Kijabe) for radiation and chemo treatment. We learned about a young boy on oxygen who had returned after receiving treatment at Kenyatta, but the staff was unclear what treatment had been given. They were not using transfer of care documents or notes from hospital to hospital to communicate exactly what care had been received. This made planning care and anticipating patient's needs very difficult for the nursing staff.

## Symposium for cancer nurses: Another opportunity to learn

We had started planning the chemotherapy workshop, as part of the twinning grant project, when the local planning group thought holding a day symposium around the same timeframe would provide an opportunity to incorporate the group from Canada. This provided mutual benefits to all, as we continued to learn more about

**Aga Khan planning group: David, convener and nurse educator, Elizabeth, chemo/breast health nurse, Diana, nurse educator, Serafino, clinical instructor—medical/surgical, Francesca, chemo/breast nurse, Taz, program administrator, and Loyce, nurse educator.**

**Odette nursing team: Angela Boudreau, Kathy Beattie, Sherrol Palmer-Wickham and Margaret Fitch.**

doi:10.5737/1181912x2031129134

the people and the health care professionals in Africa, and they were exposed to us, as lecturers. (We learned later this exposure led a sizable number of nurses to decide to attend the five-day workshop—in actuality to show up unregistered on Monday morning.)

The symposium had the theme, "*Building capacity to deal with the challenges of cancer in Kenya.*" The 130 attendees were primarily nurses from various parts of Kenya, but included several from neighbouring countries. The attendees also included the Dean of the Aga Khan University Advanced Nursing Studies, several nursing faculty members, representatives from the Professional Nursing and Palliative Care Associations and other professions, such as radiation therapists in training. The agenda was organized to help attendees learn about the growing epidemic of cancer around the world, challenges in providing culturally sensitive cancer care in Canada, caring for children with cancer, sexuality in cancer, cervical cancer developments, the role of nurses in outreach programs in rural Kenya, development of a palliative care curriculum, palliative care challenges in an acute care hospital, and challenges in the end of life in an intensive care unit. The participants were vocal throughout the day about issues such as the lack of communication, challenges in obtaining cancer and treatment information, and the great need for both patient and professional education in cancer care. Some shared candid stories of their own personal experiences. One participant stated:

*"My husband had cancer, but they didn't tell us what type and I didn't think about asking anything about it, even though I am a nurse."*

In telling her story, another participant discussed terminology used by the surgeon to talk about her treatment. When she heard, "hacking off my breast," she elected to decline surgery for her cancer. Her breasts were so integral to her position and image, as a woman. Others told of women not wanting others to know about their cancer because it influenced the marriageability status of their daughters.

The symposium gave us a beginning appreciation of the people, the health care professionals and their situation. We also had a new and growing appreciation of their daily challenges.

**Table 4. Program for five-day chemotherapy workshop**

| |
|---|
| **Day 1**<br>· Introduction to the Cancer Problem<br>· Overview of Cancer Control Principles<br>· Impact of Cancer |
| **Day 2**<br>· Principles of Oncology Nursing<br>· Introduction To Chemotherapy<br>· Principles of Oncology Nursing |
| **Day 3**<br>· Chemotherapy & Biotherapy Pharmacology<br>· Protocols—putting it all together<br>· Patient Assessment<br>· Patient/Family Education |
| **Day 4**<br>· Side Effects<br>· Monitoring Framework<br>· Monitoring Criteria<br>· Toxicity Management |
| **Day 5**<br>· Vascular Access<br>· Safe Handling<br>· Practice Change<br>· Pre/Post-Test Review<br>· Certificate presentation |

## The chemotherapy course: An experience in being flexible

The workshop entitled *"Update of nurses' knowledge and skill: Focus on chemotherapy"* was conducted over five days. It was developed to provide a knowledge base specifically related to chemotherapy. Elements from college certificate programs and core texts, along with supporting evidence from current literature were used as its basis. The focus was on chemotherapy administration and care of patients undergoing this treatment modality, but it was set within the larger context of cancer control and cancer nursing. The content was organized so that each subsequent content area built on the previous one, allowing an understanding of the complexity of cancer care and chemotherapy to evolve over the five days. Table 4 provides an overview of the content themes.

Embedded throughout the content was an emphasis on the role of the nurse in the areas of cancer control, patient assessment, patient education, side effect management, and personal protection. One session designed to explore the nursing challenges in Kenya allowed participants to discuss their daily practices and the issues they faced in providing nursing for cancer patients. They talked extensively about the myths and fears regarding cancer and chemotherapy, the late stage of cancer at diagnosis, and the realities of limited resources, poverty and poor nutrition.

The course was planned for 30 participants on the original proposal. However, 70 participants arrived on the first day. Needless to say, we were astounded. Our colleagues assured us this was not unusual in Kenya and quickly took steps to accommodate the extra people. In the end, 67 stayed with us and received a course certificate for participation and attendance on the fifth and final day. Participants came from a range of public and private health care facilities in Nairobi and beyond. They included staff providing direct patient care, managers, educators and clinical specialists.

Multiple strategies were used in the delivery of the program (see Table 5). We had been told to emphasize group work and case studies and found that this was highly successful. On the first day, the question and answer period was so successful it became a central feature of each session. The participants were highly engaged in generating questions, as well as providing answers when appropriate. The use of participant expertise in the audience in answering questions allowed us to acknowledge the existing expertise in the group. It also facilitated our achieving the goal of fostering networking. Nurses learned from one another and began to see where there were common experiences. We observed the new knowledge acquired through each session and the evolving understanding applied in the case studies. It was amazing to clearly see new knowledge applied, as participants started to expand in their group discussions to include each new area learned.

The overall program, the first of its kind in Kenya, was evaluated to determine its usefulness with a summative evaluation on the last day. However, multiple evaluation strategies were used throughout the five days. Individual sessions were evaluated in writing on a daily basis. The planning group sat together at the end of each day

**Table 5. Education strategies utilized in chemotherapy workshop**

| Education Strategies |
|---|
| Knowledge quiz (pre/post) |
| Question and Answer Sessions |
| Group Work—problem solving/case studies |
| Daily written evaluation |
| Lecture |
| Demonstration |
| Sharing local experiences/expertise |
| Self-reflection of local dissemination of information learned |

doi:10.5737/1181912x203129134

to review the evaluations, as well as review the local planning group perceptions or thoughts about the day. We used these sessions to make any adjustments to the next program components. The local nurses helped us create realistic scenarios (case studies) for discussions and role playing.

One of the sessions on the last day was a group discussion reflecting on how the participants could apply their knowledge to their practice or local work environment. This group discussion provided an opportunity to engage participants in thinking about what they had learned and about practical applications of their new-found knowledge. The local committee planned to make contact with participants several months later to determine if they had been able to make any changes to their practice, as a result of the workshop. Finally, our Canadian team originally felt that using a pre/post test might seem intimidating. However, during our first face-to-face meeting with the local planning committee members, prior to commencing the program, they thought it would be valuable. The pre test was given on the morning of the first day and the post test on the morning of the last day. The scores for each question were tabulated and we reviewed the results together, as a total group. This review fully engaged the participants (cheering en masse at high scores!) and reinforced for them that learning had taken place. There was an overwhelming sense of accomplishment. This strategy proved highly successful with the participants in providing positive feedback prior to the end of the workshop. As a teaching team, it was delightful to witness the evolution in knowledge taking place during case discussions and presentations, as participants progressed through the week.

## Meaning for the Kenyan nurses

When we planned the workshop, we anticipated the Kenya nurses would appreciate the information and the materials we had to share. However, the nurses expressed that there was deeper meaning for them in what they had gained over the course of the five days. Some of their comments included:

*"It was an eye opener to the cancer problem."*

*"Congratulations. We really appreciate the program and you have achieved the goals and objectives. For my side, I did appreciate it and would like to ask you to come to my country (Rwanda) and to do the same program."*

*"The methods of teaching the knowledge from the educators and the power to continue in oncology."*

*"It was well coordinated, well-researched and presented by highly knowledgeable ladies."*

*"Please bring more forums like this to other parts of Kenya."*

*"Make it annual….and two weeks next time."*

*"Very educative; a lot of knowledge."*

Some Kenyan nurses had experiences with cancer patients in their practices. They were able to share stories about care issues and concerns and how they solved problems. But, mostly, they asked questions. Every day, 20 to 30 questions were asked verbally and in writing—during breaks, lunches and after class! They asked about chemotherapy, general oncology nursing, causes of specific cancers, treatments and herbal remedies, customs in Canada and safe handling practices. They asked about practices in Kenya related to herbal remedies, use of marijuana and their influence on treatment and cancer outcome. Their thirst for knowledge and capacity for focused learning was inspiring.

Some shared feelings indicating what the workshop meant to them personally:

*"You made me proud to be a nurse."*

*"I hope to progress and make oncology my specialty."*

*"People were also able to exchange ideas on what happens in their set up."*

*"Keep up the good work and pass on the knowledge to others, as you did to us. God bless you mightily, as you continue with your noble job."*

*"It is a dream, will love to make it a reality."*

They had hopes for the future, specifically what this information would do for their organizations.

*"I wish the communication between us and the Canadian nurses would be promoted further in order to share challenges Kenya/Canada are having."*

*"I have improved my knowledge so much and many things to be changed in my place of work, though not directly through department meetings."*

## Meaning for us

When we started this project, we hoped to be culturally sensitive, to be aware of social norms and customs, and to share our knowledge. However, we were overwhelmed by the thirst for knowledge and reaching out to us. Answering the range of daily questions required a strategy to ensure we provided prompt responses and, yet, had enough time to address all of the questions. The participation in small group exercises and large group discussion was intense. When the participants were very engaged in discussion and sharing their experiences with each other, it was hard to stop the conversations and move on to the next topic! We consistently had to adjust our plan and time allocation. It was a good lesson in being flexible.

We were very pleased to hear that one of the participants, a professor from the Aga Khan University, found our method of sharing the teaching responsibilities, as a team, was not only quite effective, but also quite novel in their environment. It was insightful to hear this feedback about something we had taken for granted. We are used to working with each other as a team, acknowledging and respecting each others' expertise. It was not unusual for us to have one doing the presentation and all of the rest participate in the discussing and sharing stories during the session.

We were overcome by the kindness and gratitude everyone showed to us. The last day of the workshop was very touching; all participants wore traditional dress to the workshop. After the course certificates were presented, all participants sang and danced with us and presented us with our own "traditional" robes to wear. It is difficult to find words to truly express the feelings and emotions we felt at this point—such a sense of community and belonging, buoyed up by song, spirit, and just being together.

## Final comments

As an African Canadian, Sherrol felt this opportunity to go to Africa and give to the nurses in Kenya, was a dream come true. *"This was an emotionally overwhelming experience and my tears of gratitude flowed freely on the last day. I underestimated the impact of this experience on my life. We all did!"* [Sherrol Palmer-Wickham]

*This was truly an experience of a lifetime. I went with the aim of sharing knowledge, skills and information. I realized very soon that even in a well equipped hospital when patients have to pay for treatments and interventions (such as PICC lines), there are often delays.* [Kathie Beattie]

*I have the deepest respect for our Kenyan colleagues for their commitment, courage and caring in the midst of the monumental challenges they face each day. Being with them, hearing their stories, changes your perspective.* [Margaret Fitch]

*The people, like the land, are awe inspiring. It was an honour to participate in the project.* [Angela Boudreau]

Our colleagues in Kenya are in the early stages of having oncology nursing recognized as a specialty. They are determined and have a passion for oncology nursing. This small group of committed nurses will ensure that recognition of oncology nursing and its value happens. As one of the Kenyan nurses said, "If you think you are too small to make a difference, think about the difference a mosquito can make."