Palliative Care Nursing Development in the Middle East and Northeast Africa: Lessons From Oman

Jeannine M. Brant1 · Manal Al-Zadjali2 · Faiqa Al-Sinawi3 · Tayreez Mushani4 · Susan Maloney-Newton5 · Ann M. Berger6 · Regina Fink7

Accepted: 28 May 2021 / Published online: 15 June 2021 © American Association for Cancer Education 2021

Abstract
Nurses are on the frontline of palliative care, and in some countries, are the only contact for patients and families facing life-threatening illness. The Oman Cancer Association in the Sultanate of Oman, in collaboration with the Middle Eastern Cancer Consortium and the Oncology Nursing Society, led a palliative care initiative over the past decade to better integrate palliative care into the health care system. Components of this initiative include integrating palliative care into the health care curricula and providing palliative care education to over 400 nurses and other health care professionals within Oman. The four-part education series includes the following courses: (1) Foundations of Palliative Care, (2) Advanced Concepts in Palliative Care, (3) Palliative Care Leadership, and (4) Palliative Care Research. Additional participants from 17 different countries in the Middle East and northern Africa also attended the training. Twenty of the trainees who were considered palliative care leaders in their countries then participated in a Train the Trainer course. This group trained the last cohort of health care professionals in Oman and then took learned concepts and strategies back to their respective countries in order to provide country-wide education and build palliative care capacity in the region. Outcomes include the development of palliative care units, quality improvement projects that improved care, and advocacy projects to increase opioid availability within some countries. The collaborative continues its work and connections through social medial, email, and virtual collaboration. Other countries can use this model to permeate palliative care within their regions.

Keywords Palliative care · Cancer · Global health · Education · Train-the-trainer

The goal of palliative care is to improve quality of life for patients with serious and often chronic, life-limiting illness regardless of disease extent or need for additional therapies [1, 2]. Palliative care emphasizes high-quality pain and symptom assessment and management, while incorporating psychosocial and spiritual care focusing on patient/family needs, values, preferences, and cultural beliefs. Palliative care is a philosophy of care that may be delivered by nurses and other health care professionals provided they are educated and skilled through appropriate learning opportunities; it also may be provided by tertiary palliative care specialists to patients with complex problems [3]. It is an important subspecialty that has taken hold in many developed countries over the past three decades; however, a need exists to provide palliative care to all persons globally.

The 2015 Quality of Death Index studied palliative care across the world ranking many Middle Eastern and East African countries at the bottom of the scale [4]. In regard to pain relief, an important component of palliative care, the Global Atlas of Palliative Care suggests access to opioid medications is a substantial problem worldwide [5]. Numerous countries (~80%) are not able to provide optimal pain...
relief for patients at the end of life since they utilize little to no opioids to manage pain. Lastly, access to palliative care is a human right that needs to be formally acknowledged by all countries with a plan for the provision of comprehensive palliative care by appropriately educated nurses and other health care professionals [6].

Nurses are on the frontline of palliative care. More than any other health care professionals, nurses devote the most time caring for patients and family caregivers who are coping with the trials of serious, life-limiting illnesses [7, 8]. Nurses may even be the only contact for patients and families and are in a powerful position to advocate for opioid use and provide patient and family education to dispel myths surrounding opioid use. Additionally, while physicians are in the position to prescribe opioids in many countries, many low- to middle-income countries (LMICs) lack the critical mass of physicians and nurses are the frontline providers of palliative care. In some cases, palliative care is delivered solely by nurses who have been given prescriptive authority in their respective countries (e.g., Uganda) [9]. The role of the nurse also includes advocating for health care policies that impact the delivery of palliative care and the availability of opioids and other essential components of care, providing leadership in community palliative care formation, and in conducting palliative care research [10]. This paper describes an innovative palliative care nursing education program that has been developed, implemented, and sustained in Oman and expanded throughout the Middle East and North Africa. Examples are provided that illustrate tangible outcomes of this collaboration.

### Palliative Care in Oman

Early efforts to integrate palliative care in Oman were sporadic and limited. While palliative care content was incorporated into the health professional education curricula, a formal palliative care training program was lacking. In 2011, the Oman Cancer Association (OCA), through support from the Ministry of Health (MOH), collaborated with the Middle Eastern Cancer Consortium (MECC) and the Oncology Nursing Society (ONS) to unite health care professionals from many Middle Eastern countries to build palliative care

#### Table 1 Efforts to promote palliative care in Oman

| Date      | Palliative care in Oman                                                                 |
|-----------|----------------------------------------------------------------------------------------|
| 2011      | The first course on Foundations of Palliative Care was initiated in Oman. The course was coordinated by MECC and taught by nurses from the Oncology Nursing Society. Attendees were from Oman, Cyprus, Egypt, Israel, Jordan, Iraq, Palestine, Turkey, Pakistan, United Arab Emirates, and Yemen |
| 2012      | Advanced Palliative Care Courses were conducted
          | Same attendees from 2011
          | Royal Hospital in Muscat, Oman sent two staff nurses to California, USA for a training program in palliative care. Nurses trained in palliative care implemented their action plans. |
| 2013      | Foundations and Advanced Palliative Care Courses were conducted for a second cohort of nurses |
| 2014      | Nurse leaders attended the Middle Eastern Cancer Consortium Cancer Conference in collaboration with NCI in Ankara, Turkey
          | BSc (Hons) Community Health Nursing students organized a scientific day to promote palliative care among health care workers and organized an outreach program to educate the public about palliative care
          | Palliative care was approved by the Sultanate of Oman Ministry of Health resorting it administratively under primary health care
          | Palliative care was provided as an outpatient service in the National Oncology Center, Royal Hospital. The clinic focused primarily on pain and symptom management. A doctor and a nurse were assigned to the clinic seeing palliative care patients 1 day each week |
| 2015      | Another group of Omani nurses were trained on Foundations of Palliative Care by OCA and MOH in collaboration with MECC and ONS
          | Attendees expanded to include Afghanistan, Iran, Qatar, Kenya, Tanzania, and Zambia
          | The 7th Muscat international oncology conference was attended by 450 health care professionals |
| 2016      | Nurses were trained in Advanced Palliative Care by OCA and MOH in collaboration with MECC and ONS
          | The 8th Muscat international oncology conference was attended by 400 health care professionals
          | Primary health care physicians were trained in palliative care
          | Nurses who attended the palliative care courses were trained in palliative care leadership and research in palliative care
          | OCA organized a leadership conference for health care professionals
          | OCA in collaboration with the MOH and University of Nebraska implemented the first research to publication workshop for health care professionals
          | OCA organized a palliative care workshop for journalists
          | OCA organized a palliative care awareness course for volunteers
          | Two palliative care training workshops were conducted in Royal Hospital |
| 2017      | OCA organized a spiritual care course for participants from the Middle Eastern and East African region
          | OCA organized a Train the Trainer Course, which was delivered by ONS for Omani and international nurse leaders who then provided the Foundations of Palliative Care Course
          | OCA organized a second Train the Trainer Course the Advanced Palliative Care, Leadership, and Research Courses |
capacity. Palliative care education was offered to nurses and other health care professionals in the region. Since then, the OCA has exerted great effort in training nurses and other health care professionals in palliative care with the support of its partners (Table 1) [11].

The authors of this paper met during this collaboration and have led this collaboration over the past decade. Professor Michael Silbermann, the Executive Director of the MECC, initially brought thismb group together and organized the early training efforts. Dr. Al-Zadjali and Ms. Al-Sinawi served as the nursing leaders from Oman, and Ms. Maloney-Newton was a nurse educator from the ONS in the USA since the beginning of the initiative in 2012. Drs. Brant and Fink were brought into the collaborative in 2013 through the Oncology Nursing Society, and Dr. Brant was appointed as leader of the ONS team shortly thereafter. Both Drs. Brant and Fink were appointed to a National Cancer Institute (NCI) committee that represented Palliative Care in the Middle East. Ms. Mushani, a nursing leader and assistant professor in Kenya, entered the collaborative in 2015 when the educational reach expanded into northern Africa. And Dr. Berger taught research course components at a training in 2017. In addition to the meetings in Oman, the authors from this paper and other nurse leaders from this collaborative engaged in education and strategy meetings virtually and in Istanbul and Ankara, Turkey. This nursing collaborative continues to share experiences through social media and through virtual meetings.

**Landscape of Oman**

The Sultanate of Oman is a Middle Eastern Country located in the southeast coast of the Arabian Peninsula. Oman is approximately 309,500 km² (i.e., 120,000 mi²) in size with a population around 4.5 million including foreigners and residents. The majority of the population in Oman is young, between 15 and 64 years of age (40% of the population), with a life expectancy of 75 and 79 years for males and females respectively [12]. Oman is an ethnically diverse country and most of the people in the country are Muslim [13]. According to The World Economic Forum, Oman is considered the 9th safest country to live in around the world [14].

The safety of Oman as well as the OCA’s well-developed relationships with international partners, governmental and non-governmental organizations has created an environment that supports palliative care education throughout the East Mediterranean region.

**Global Partnerships**

Palliative care educational needs are not unique to the Middle East. The World Health Organization (WHO) estimates that at present, palliative care services are only received by 14% of the people who need them with the greatest needs being in low- and middle-income countries such as those of sub-Saharan Africa [15]. The African continent faces the most severe global shortage of health care providers, and estimates needing 4.2 million health care workers to amend the shortfall [16, 17]. Two East African countries, Kenya and Tanzania, reflect the current African situation.

Challenges in the provision of palliative care in Kenya and Tanzania include a lack of adequate health human resources, poor infrastructure, limited access to essential medications, insufficient number of trained palliative care providers, and a lack of palliative care education. Health systems face additional educational challenges including the high cost of utilizing and consulting with expert faculty to teach palliative care concepts or sending local professionals to distant sites for training [16, 17].

The current model of the OCA-ONS partnership is therefore a timely and welcome initiative to meet this challenge. Through this initiative, nurse educators from Kenya and Tanzania were invited to participate in training offered to nurses from Oman and other Middle Eastern countries. The model enabled participants to receive four palliative care courses over 1 year delivered by international oncology and palliative care nursing experts. In addition, participants networked with other regional and international professionals, made new contacts, discussed challenges, exchanged ideas, and received much needed mentorship.

This level of engagement is not always available to participants in their host countries. Episodic workshops delivered by visiting professionals seldom result in long-term sustainability and solid program development. The OCA-ONS initiative with its focus on long-term capacity building enables participants to access training in a stepwise fashion, implement small changes in the workplace, identify issues, and then receive guidance and feedback at future sessions. In this way, they are able to implement more permanent changes in the delivery of palliative care around the region.

The other, perhaps unintended benefit of this partnership is the opportunity for participants to set up networks to exchange knowledge and ideas, establish joint projects, and derive contextually relevant solutions to common challenges. This partnership is an example of how organizations and individuals with a shared vision can partner to impact the lives of patients across several countries, some of which face grave challenges in the provision of palliative care. Ongoing virtual communication has fostered relationships and attainment of goals set during the training.

**Palliative Care Curriculum**

Nearly 400 nurses and other health care professionals from Oman and 11 countries throughout the Middle East and Eastern Africa have successfully completed palliative
A leadership development plan is also crafted for personal Board. Table 3 includes a list of proposed research studies.

Cancer registries are another essential sustainable effort to collect data that demonstrate useful and reliable information specific to the population of cancer patients who receive palliative care. The creation of a data bank is an important first step in improving cancer care in Middle Eastern countries [21]. If data are collected reliably, summarized, and analyzed by qualified researchers, the information obtained will demonstrate the short-term outcomes and identify

### Sustainability

Essential to the long-term goal of partnerships between high-income countries and low- to middle-income countries (LMIC) to improve cancer care includes development of a sustainable program [19]. The TTT program which was previously discussed is one sustainability effort. Additionally, programs should include training nurses to deliver palliative care as their full-time practice, which does not always happen in the region. Nurses are often assigned to a variety of units; therefore, they lack specialization in any one area.

Service delivery issues, such as a shortage of qualified nursing staff, need to be identified as a health system constraint and addressed in LMICs. For continuity, a long-term relationship among OCA, ONS, and other partners is essential, and a 5-year agreed-upon plan is necessary to solidify the efforts [20]. Relationships are also key in maintaining long-term relationships, and encouragingly, the group maintains contact ongoing through its group WhatsApp chat. Cancer registries are another essential sustainable effort to collect data that demonstrate useful and reliable information specific to the population of cancer patients who receive palliative care. The creation of a data bank is an important first step in improving cancer care in Middle Eastern countries [21]. If data are collected reliably, summarized, and analyzed by qualified researchers, the information obtained will demonstrate the short-term outcomes and identify
| Liberating structure                  | Rational for use                                                                 | Steps                                                                 |
|--------------------------------------|----------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| Impromptu networking                 | • Get people up and moving                                                       | • Everyone gets up and finds someone they don’t know                  |
| • Used for participant introductions | • Acquaint with others you don’t know                                            | • Pairs introduce one another                                         |
|                                     | • Keep them thinking about the week                                              | • 2 questions: (1) What do you hope to get from this workshop?        |
|                                     |                                                                                  | 20 What do you hope to contribute to this workshop?                   |
|                                     |                                                                                  | • 2 min per person—3 rounds                                          |
| Conversation café                    | • Engage everyone in making sense of profound challenges                         | • Get into small groups                                               |
| • To discuss opportunities and challenges of palliative care | • Encourages everyone to express themselves                                     | • A talking object is passed from person to person                    |
|                                     | • Distributes conversation                                                       | • Round 1: Each person shares one strength and one challenge in their setting in regard to palliative care—1 min per person |
|                                     |                                                                                  | • Round 2: Reflections after listening to everyone—1 min per person    |
|                                     |                                                                                  | • Round 3: Open conversation 15 min without object                     |
|                                     |                                                                                  | • Round 4: Take aways—1 min per person                                |
|                                     |                                                                                  | • Map of room drawn and taped to wall                                 |
|                                     |                                                                                  | • Participants invited to propose a topic to discuss with others—write it on a sticky note and stake a place in the room, e.g., curriculum development, pain management, pediatrics |
|                                     |                                                                                  | • Once 4–5 topics proposed, individuals can wander to a group          |
|                                     |                                                                                  | • Lead must stay with group but others can wander in and out:         |
|                                     |                                                                                  | • Bee (pollinates and moves ideas) or butterfly (goes group to group for various interests) |
| Open space                           | • Participants control the agenda                                                | • Participants invited to propose a topic to discuss with others—write it on a sticky note and stake a place in the room, e.g., curriculum development, pain management, pediatrics |
| • To develop a palliative care quality improvement project | • Allows individuals to begin teaming with others in their area of interest   | • Map of room drawn and taped to wall                                 |
|                                     | • Allows leaders to emerge                                                       | • Blank sticky notes in middle of room                                |
|                                     | • Everyone who joins the group cares about the challenge at hand                 | • Participants invited to propose a topic to discuss with others—write it on a sticky note and stake a place in the room, e.g., curriculum development, pain management, pediatrics |
| Fishbowl                             | • Share knowledge gained from experience                                         | • 3–4 of us in the inner circle to talk about the good, bad, and ugly of establishing palliative care in the hospital and community |
| • To illustrate successes and challenges of establishing palliative care services | • Uses expertise of those who have established a palliative care program     | • Converse and share stories without engaging outer circle for 10–15 min |
|                                     | • Allows participants to ask questions and engage                                | • Outer circle gets together in groups of 4 to list 3 questions—or could just have open questions |
|                                     | • Participants can jot down take aways for their palliative care plans           | • Inner circle answers questions and interacts with outer circle       |
| Improv                               | • Everyone included as players or observers                                      | • Allow 1–2 empty seats for others to enter in and ask questions      |
| • To demonstrate positive and negative communication skills | • Only so much about communication can only be taught in a textbook—it has to be role modeled | • Volunteers recruited to be a patient and family member—they write the scenario, e.g., patient has high anxiety (but can’t be told she has cancer) but daughter trying to support |
|                                     | • Allows them to create their own context for the situation, and our team responds/ communicates | • Play out the scene according to cultural context                     |
|                                     |                                                                                  | • Allow others to respond of what went well and what could have been different |
| Liberating structure                  | Rational for use                                                                 | Steps                                                                                   |
|---------------------------------------|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Appreciative interviews               | • To discuss successes and strategies for improved psychosocial care              | • Get into pairs                                                                       |
|                                       | • Discovers and builds on the root causes of success                             | • One person interviews another: (1) Please tell a story about a time when you provided good psychosocial care. (2) What do you think made this good psychosocial care possible. 3 min |
|                                       | • Acknowledges each individual for their contribution to psychosocial care        | • Switch—3 min                                                                         |
|                                       | • Allows participants to share ideas that can be incorporated into the palliative care plans | • Get in groups of 4                                                                    |
|                                       | • Discovers and builds on the root causes of success                             | • Interviewer tells partner’s story—3 min × 4                                           |
|                                       | • Acknowledges each individual for their contribution to psychosocial care        | • Collect group insights—write on flip charts the patterns for success                   |
|                                       | • Allows participants to share ideas that can be incorporated into the palliative care plans |                                                                                         |
| Crowd sourcing                        | • For developing a Palliative Care Plan                                         | • Everyone gets an index card                                                           |
|                                       | • Rapidly generates a group’s most powerful actionable ideas                      | • Everyone is asked, “What big idea do you have to integrate palliative care into your setting?” or “What first step will you take to start palliative care in your setting?” |
|                                       | • Everyone participates by writing down ideas                                    | • Cards are collected and shuffled                                                       |
|                                       | • Ideas are anonymous                                                            | • Participants wander and get into pairs to discuss what is on their card and rate from 1–5 (5 is high) |
|                                       | • Participants vote on most resonating ideas                                     | • Couple exchanges cards and scores                                                      |
|                                       | • Everyone participates by writing down ideas                                    | • Everyone exchanges cards                                                             |
|                                       | • Ideas are anonymous                                                            | • 5 rounds so each card has 10 scores                                                  |
|                                       | • Participants vote on most resonating ideas                                     | • Last person adds the scores—discuss top 10 ideas                                      |
|                                       | • Everyone participates by writing down ideas                                    | • End by asking—“What caught your attention?”                                           |
| 1–2–4–ALL                             | • Used to discuss pain cases                                                    | • Participants get into their breakout groups                                           |
|                                       | • Distributes group participation                                               | • Each group is given a case study                                                     |
|                                       | • Allows for individual reflection, small group interaction, and then a larger exchange of ideas | • Individuals reflect on the study for 5 min and write down thoughts                    |
|                                       | • Distributes group participation                                               | • Groups of 2 share thoughts                                                           |
|                                       | • Allows for individual reflection, small group interaction, and then a larger exchange of ideas | • Groups of 4—or could convene the whole group to share thoughts and come up with a plan |
|                                       | • Distributes group participation                                               | • Plan is written on the flip chart                                                     |
|                                       | • Allows for individual reflection, small group interaction, and then a larger exchange of ideas | • ALL—each group presents their case and plan to the larger group                      |
| Celebrity interviews                  | • To integrate spiritual Concepts into Palliative Care Services and engaging Islamic Spiritual Leaders as experts | • One person from each country chosen by leaders ahead of time; option: give them questions the night before |
|                                       | • Explores big challenges with those knowledgeable in the area                   | • The three celebrities are seated in chairs at the front of the room                   |
|                                       | • Allows participant leaders to share experiences on integrating spirituality into care | • Interviewer introduces topic to be discussed and conducts the interviews: (1) What inspired you in this work? (2) How do you manage stress in your work? (3) What role does spirituality have in your work? (4) How do you integrate spirituality into your patient care? |
|                                       | • Relies on their beliefs and customs                                           | • Audience asks questions after the interviews                                         |
|                                       | • Stories emerge that bring concepts to life                                    |                                                                                         |
For sustainability, registries need to be streamlined for efficiency [22]. Additionally, ongoing involvement in the World Health Organization (WHO) palliative care program is important to make progress in cancer prevention and control in the region [23].

Omani, Middle Eastern, and East African nurse leaders are critical to the success of the partnership described in prior sections of this paper. That is the major reason why more than 400 nurses have attended the Palliative Care Nursing and Research and Leadership courses held in Oman in recent years. Each nurse or health care professional returned to their position with new knowledge, skills, and attitudes about palliative nursing care. When disseminating their learning with peers, they influence the current culture of nursing care and help prepare peers for practice changes that can be sustained.

Twenty nurse leaders also completed the TTT course and delivered a four-day Foundations in Palliative Care Course. Mentorship of emerging Omani nurse leaders will continue to occur following these activities, along with other programs to improve cancer and palliative nursing care. Expanding onsite and online programs and opportunities to train nurses to deliver palliative cancer care will positively influence sustainability efforts.

Significant challenges face the ongoing implementation and sustainability of palliative care in Oman and in Middle Eastern, and East African countries. Some of the challenges and suggested solutions are included in Table 4.

### Future Directions

Abundant opportunities exist for the future. The OCA-ONS model for palliative care can expand into new regions, including rural areas and sub-Saharan Africa. Primary palliative care should be made available to all persons, and must reach smaller hospitals, home care settings, and clinics throughout Oman and other regions.

In addition to educating nurses, other interdisciplinary team members will be invited to the educational and training opportunities including pharmacists, social workers, spiritual care advisors and chaplains, physicians, and other health care professionals. Interdisciplinary training can enhance teamwork and foster respect for each individual’s role on the palliative care team.

Increasing public awareness of palliative care is another important direction for the future. Patients and health care professionals alike continue to be confused about the definition of palliative care. Ensuring and clarifying that palliative care is not hospice or caring for patients exclusively at the end of life is essential, rather, an understanding should exist that palliative care is care for patients with serious, life-limiting illnesses and their family caregivers.
Finally, leaders should continue to work with governments, ministries of health, and palliative care associations to improve opioid availability for pain management [24, 25]. Other pharmaceuticals are also necessary to improve symptom management and alleviate suffering for patients along the disease trajectory.

Overall, the excitement of this work has permeated the region. While much has been accomplished, much more work remains. As a fourteenth century philosopher noted, “It is important not to allow ourselves to be put off by the magnitude of others’ suffering. The misery of millions is not a cause for pity. Rather it is a cause for compassion.” This compassion will continue to drive these efforts forward and make a positive impact on the quality of lives of patients with serious illness and their families. Under the foundation of MECC and within OCA’s current leadership, continents and people are united to make this dream a reality.

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