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A Pilot Study of Palliative Care Provider Self-competence and Priorities for Education in Kenya

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This study explored palliative care provider self-competence and priorities for future education in an inpatient hospice setting in Kenya. Self-competence scores for clinical skills and patient and family communication skills were hypothesized to differ according to provider type. A descriptive, cross-sectional study design was piloted at Kimbilio Hospice, a 26-bed rural, inpatient facility in Kenya. A quantitative survey instrument entitled, "Self assessment of clinical competency and concerns in end-of-life care," was administered to participants. Survey responses were collected from 5 clinical staff, 11 caregivers, and 8 support staff. Data were analyzed using Kruskal-Wallis test to compare between mean scores. Statistically significant differences were found in 5 self-competence variables: performing a basic pain assessment, use of oral opioid analgesics, assessment and management of nausea/vomiting and constipation, and discussing an end-of-life prognosis with a patient's family member ($P < .05$). Sixteen participants (66%) selected pediatric palliative care as their top priority for future education. The findings support the hypothesis that palliative care providers have varying levels of self-competence.

Improving education to build palliative care competencies in adult and pediatric palliative care in sub-Saharan Africa is recommended.

KEY WORDS

hospice, international, Kenya, palliative care, rural

Access to palliative care in developing countries is a global health challenge. In sub-Saharan Africa, palliative care research and practice have been rapidly developing since 2007, when the Venice Declaration and the World Health Organization (WHO) proposed strategies to develop and improve the quality of palliative care education and service provision in developing nations.¹ However, access to palliative care services is complicated by resource constraints and a health care worker shortage that prevents the delivery of high-quality services to underserved patients.² Given that one in 200 individuals in Africa needs palliative care annually, palliative care must be expanded to alleviate the suffering of patients with life-threatening illnesses.³ This task requires the implementation of robust, comprehensive palliative care services throughout sub-Saharan Africa based on the needs of patients, providers, and communities. While research in sub-Saharan Africa has appropriately focused on palliative care patients,⁴⁻⁷ few studies have investigated palliative care providers' experiences thus far.²

In Kenya, momentum is building to expand the provision of high-quality palliative care. Through the Kenya Hospices and Palliative Care Association, which coordinates the efforts of public, private, and nongovernmental organizations, 30 000 patients received palliative care services through 70 service providers in 2012.⁸ In 2008, Kenya Hospices and Palliative Care Association collaborated with the End-of-Life Nursing Education Consortium from the United States to train 49 nurses, physicians, social workers, and nursing faculty in palliative care topics, resulting in the improvement of palliative care content in bachelor of science nursing curricula.⁹ While advocacy and collaboration facilitate the growth of palliative care infrastructure in Kenya, poor access to care remains a formidable challenge. Moreover,

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a dearth of information exists about Kenyan palliative care providers, whose perspectives are crucial for the development of evidence-based palliative care services in this country.^{1,10,11}

Nurses have more contact with palliative care patients than other health care workers in sub-Saharan Africa and globally; thus, it is imperative to improve nurses' competency in providing services to patients with life-threatening illnesses.^{12,13} However, nurses have insufficient professional training to provide end-of-life care in sub-Saharan Africa because of a lack of education. As a result of the gap between professional education and clinical practice, the WHO has recommended that palliative care become a core component of training and continuing professional education for nurses.^{14,15} Some palliative care studies have assessed patient needs and preferences in sub-Saharan Africa, but few have assessed provider preferences and priorities for education.¹ Ugandan health care professionals identified pediatric palliative care as an important area for expanded education and emphasized that pediatric communication, pain management, and psychological issues were the top three priorities.¹⁶ Recommendations to improve palliative care education for health care providers include interdisciplinary team building, advocacy, reliable supply chains for opioids and other pain medications, and palliative care curricula for nursing and medical education.¹⁷ Research is needed to assess priorities for education and training among palliative care providers and hospice staff.

One framework that can be used to evaluate palliative care provider perspectives and needs is based on the shared theory of self-competence proposed by Desbiens et al.¹⁸ This concept combines Bandura's¹⁹ Social Cognitive Theory with Orem's Self-care Model and examines both nursing and patient concepts in palliative care, which impact the therapeutic relationship between nurses and patients with life-threatening illnesses. Whereas a functional definition of competence is the actual capability of an individual to utilize various subskills (eg, cognitive skills), knowledge, values, and attitudes into an action that serves a specific purpose,¹⁸ self-competence denotes an individual's perception of his or her competence. Desbiens' shared theory argues that nurses with higher self-competence provide better care than do nurses with lower self-competence.^{18,20} As a theoretical concept yet to be studied, self-competence explores the relationship between palliative care provider competence and the quality of palliative care services. In developing countries such as Kenya, assessing and improving provider self-competence have the potential to identify areas for improvement and bolster palliative care services. Based on the principles of this shared theory, a survey instrument assessing palliative care provider self-competence was selected to address the study aims.

The purposes of this study were to (1) assess palliative care self-competence in both clinical care and patient and

family interactions and (2) assess provider priorities for education among palliative care providers and hospice staff in the Rift Valley Province in Kenya. We hypothesized that self-competence would differ between 3 groups of palliative care providers (clinical staff, support staff, and caregivers) in the inpatient setting of Kimbilio Hospice.

METHODS

A descriptive cross-sectional pilot study was conducted to assess palliative care provider self-competence in both clinical care and patient and family interactions and priorities for education.

Setting

Kimbilio Hospice is a rural, palliative care facility located approximately 200 miles north of Nairobi, Kenya.²¹ This 26-bed hospice was opened in 2010 through Living Room International (LRI), a Kenyan nongovernmental organization, to provide quality palliative care services to adults and children living with life-threatening illnesses. Kimbilio Hospice (Kiswahili for "refuge") provides inpatient hospice services to patients who have been referred from local hospitals or clinics or who have been diagnosed with life-threatening illnesses. A total of 229 patients were admitted to Kimbilio Hospice in 2013, including 94 men and 135 women, a majority of whom are younger than 60 years (70%), and 82 of whom died at the hospice.²¹ The most common illnesses that children and adults at Kimbilio present with are HIV/AIDS (59%) and cancer (40%), along with failure to thrive, malnutrition, and tuberculosis.²¹ The interdisciplinary team of palliative care providers and staff includes 3 registered nurses, 2 clinical officers (a similar role to physicians), a chaplain, 3 social workers, 3 community health workers, 2 physical therapists, 12 nursing assistants (called caregivers), and other support staff including cooks and administrators. Kimbilio Hospice provides holistic services including pain and symptom management, physical therapy, spiritual and social support, nutritional support, HIV medication management, wound care, and bereavement support. In addition, Kimbilio Hospice has access to oral morphine to provide effective pain management to their patients, along with other adjuvant analgesics.

Sample

The research team from the University of California, San Francisco (UCSF), School of Nursing, met with the LRI management team in December 2013 to discuss the study and the recruitment of eligible Kimbilio Hospice clinical and support staff. All hospice staff providing palliative care services ($n = 25$) were invited to participate in the study. Study inclusion criteria were as follows: adult (≥ 18 years old), hospice staff who provide palliative care services at



Kimbilio Hospice based on scope of practice and job descriptions, able to give informed consent, and able to speak English fluently. The participants were grouped into clinical staff (including nurses and clinical officers), support staff (including social workers, chaplains, physical therapists, and community health workers), and caregivers (those who provide assistance with activities of daily living in a role similar to certified nursing assistants in the United States). Demographic data collected included gender, number of years worked in palliative care, role at Kimbilio Hospice, and whether the participant had received formal training in palliative care outside of LRI.

The Committee on Human Research at UCSF reviewed and approved the study. Although an ethics review board does not exist at LRI, the management team was involved in the design of the study and approved the final version of the survey. Informed written consent was obtained from each participant prior to the survey.

Data Collection

Surveys were conducted with each individual participant in a private room between December 2013 and January 2014. The WHO definition of palliative care was read to each participant.¹⁴ The investigator read the questions out loud in order for participants of all literacy levels to participate and to ensure accuracy. Likert scale responses were recorded by the investigator on the survey instrument prior to being submitted for analysis.

Instruments

Researchers completed the “Self-assessment of Clinical Competency and Concerns in End-of-Life Care” survey with each participant. The survey instrument was adapted from a questionnaire, “A Survey of Competencies and Concerns in End-of-Life Care for Physician Trainees,” developed by Weissman et al.²² The questionnaire was originally administered to medical students and residents in the United States to assess competency and ethical concerns and to design future palliative care educational programs. In the original survey, 4 palliative care topics were assessed: (1) competencies and comfort in end-of-life communication topics, (2) management of end-of-life medical issues, (3) comfort with treatment withdrawal, and (4) ethical concerns in common end-of-life scenarios.²² The instrument has not been formally validated with an original audience, and psychometrics have not been reported (personal email communication, Dr Weissman, April 7, 2014). However, the survey is used in palliative care education across the country, and permission was granted to use the survey in this article following the survey administration. The authors adapted the above topics from this instrument because to their knowledge instruments did not exist that survey

palliative care providers in developing countries or sub-Saharan Africa.

Section I of the survey measured palliative care provider self-competence. In this section, domain I assessed clinical care (questions 1-12), describing all tasks performed by clinical personnel (eg, assessment and management of nausea). Domain II assessed patient and family interactions (questions 13-21), describing tasks that could be performed by clinical and nonclinical personnel (eg, conducting a family conference). A Likert scale was used to assess self-competence (1 = need further basic instruction, 2 = competent to perform with minimal supervision and coaching, 3 = competent to perform with team consultation, 4 = competent to perform independently). A “not applicable to my role” answer choice was included based on consultation with LRI staff because not all items tested were within the job descriptions or scope of practice of all study participants.

In section II, participants were asked to rate their priorities for 10 palliative care education and training topics using a Likert scale (1 = not at all a priority, 2 = somewhat a priority, 3 = a priority, 4 = definitely a priority). Once participants had completed the questions, they were asked to highlight their top 3 priority topics for future education and training. A section eliciting providers’ priorities for future education was added to the original survey based on conversations with the LRI staff team. In this article, the results on ethical concerns in common end-of-life scenarios are not reported.

In order to adapt Weissman and colleagues’²² survey to a rural inpatient hospice setting in Kenya, the LRI management team reviewed and piloted survey drafts so that questions were contextually appropriate. For instance, the word “physician” was removed from the survey and replaced with “palliative care providers and staff” because no physicians work at Kimbilio Hospice. After the survey was piloted, the original survey response choice of 3, “competent to perform with minimal supervision,” was replaced with “competent to perform with team consultation,” because Kimbilio Hospice staff are instructed to perform many tasks through team consultation. Questions about pediatric palliative care were added to sections I and II because many pediatric patients are seen at the hospice, and the management team viewed pediatric skills as vital. The topic in the original survey that covered comfort with treatment withdrawal was incorporated into section I on self-competence. Prior to the survey administration, the researchers agreed upon a set of standardized definitions of complex terms or phrases (eg, urosepsis), so that participants could understand the terms and reliability of the data could be maintained. Measurement reliability over time and over raters was stable, as the surveys were read verbatim in each participant interview by each researcher.



Statistical Analysis

For the analysis, the responses of providers were aggregated based on the groups of clinical staff, support staff, and caregivers. The means and SDs were determined for each question in each domain. Composite self-competence scores were calculated for the categories of clinical care (total possible score ranged from 12-48) and patient and family interactions (total possible score ranged from 9-36) in section I. Self-competence score differences among the 3 groups of palliative care providers were assessed using the nonparametric Kruskal-Wallis 1-way analysis of variance. An $\alpha < .05$ was used to determine statistical significance in all statistical tests. In section II, the percentage of participants selecting each category as one of their top 3 priorities for future education was calculated for each variable.

FINDINGS

Demographic Data

The sample included 24 palliative care providers and staff out of the 25 eligible participants at Kimbilio Hospice (Table 1). One caregiver did not speak English and was therefore excluded. Participants included 5 clinical staff (21%), 8 support staff (33%), and 11 caregivers (46%). The majority of participants were female (54%) with 7 female caregivers, 4 female clinical staff, and 2 female support staff. The majority of participants reported formal training (eg, nursing school, certificate programs, other programs, or training outside Kimbilio Hospice) in palliative care (58%), including 80% of clinical staff, 63% of caregivers, and 38% of support staff. The median amount of time that staff had worked in palliative care was 2 to 3 years: clinical staff (0-1 years), support staff (2-3 years), and caregivers (3-4 years). Only 4 participants reported working in palliative care less than 1 year, all of whom were clinical staff.

Self-competence Scores

Mean self-competence scores grouped by provider type for domains I and II in section I are shown in Table 2. Across all provider types, the total mean self-competence score for clinical care was 2.9 (SD, 0.84), and the total mean self-competence score for patient and family interactions was also 2.9 (SD, 0.94) on a scale of 1 to 4. The mean self-

competence composite score (total possible range, 12-48) in the clinical care category across all providers was 26.4 (SD, 11.1). The mean self-competence composite score in the patient and family interactions category (total possible range, 9-36) was 22.3 (SD, 6.7). Clinical care mean self-competence scores were higher for clinical staff as compared with caregivers or support staff. The mean self-competence scores for patient and family interactions were the same for clinical and support staff and only slightly lower for caregivers.

For the 5 clinical staff, the highest mean self-competence scores were the use of oral opioid analgesics (mean, 4.0), performing a basic pain assessment, and the assessment and management of nausea and vomiting, diarrhea, and constipation (all with mean of 3.8). The 3 lowest mean self-competence scores were discussing inpatient hospice referral, the use of intravenous/injectable opioid analgesics, and the assessment of pain in the pediatric patient (all with mean of 2.8). Clinical staff answered clinical care category questions with a response of 3 or 4 (3 = competent to perform with team consultation, 4 = competent to perform independently) 92% of the time, compared with 75% of the time for support staff and 70% for caregivers. In the patient and family interactions category, clinical staff responded with a 3 or 4 response 91% of the time, compared with 89% of the time for support staff and 66% for caregivers. All clinical staff responded to the questions in both clinical care and patient and family interactions categories by choosing from the 1- to 4-point Likert scale and did not select "not applicable to my role" for any question. Of 8 support staff, "not applicable to my role" was answered 43 times of 96 possible responses (45%) in the clinical care category and 19 times of 72 possible responses (26%) in the patient and family interactions category. Of 11 caregivers, "not applicable to my role" was answered 31 times of 132 possible responses (23%) in the clinical care category and 17 times of 99 possible responses (16%) in the patient and family interactions category.

There were statistically significant differences between palliative care provider types in 5 of the 21 self-competence variables: performing a basic pain assessment (Kruskal-Wallis $H(2) = 7.220, P = .027$), use of oral opioid analgesics ($H(2) = 8.366, P = .015$), assessment and management of nausea and vomiting ($H(2) = 7.730, P = .021$), assessment

TABLE 1 Participant Demographics

	Total	Clinical Staff	Support Staff	Caregivers
No. of participants (% of sample)	24	5 (21)	8 (33)	11 (49)
No. (%) female	54%	7 (29)	4 (17)	2 (8)
Formal palliative care training, %	58	80	63	38
Median time in palliative care, y	2-3	0-1	2-3	3-4



TABLE 2 Mean Self-competence Scores by Palliative Care Provider Type, Domains I and II

Self-competency Question	Clinical Staff	Support Staff	Caregivers
Conducting a basic pain assessment	3.8 (0.45) ^a	3.7 (0.52) ^a	2.7 (0.95)
Use of oral opioid analgesics	4.0 (0.00) ^a	2.0 (0) ^a	2.3 (1.16) ^a
Use of intravenous opioid analgesics	2.8 (0.84)	NA	1.75 (0.96)
Use of adjuvant analgesics	3.4 (0.55)	NA	2.2 (1.10)
Pain in the unresponsive, demented, or confused patient, assessment	3.2 (0.55)	2.9 (0.38)	2.7 (1.00)
Pain in the pediatric patient, assessment	2.8 (0.45)	3.2 (0.41)	2.6 (1.03)
Terminal delirium, assessment and management	3.2 (0.45)	2.8 (0.41)	2.6 (0.67)
Terminal dyspnea, assessment and management	3.4 (0.55)	2.8 (0.75)	2.5 (0.97)
Nausea and vomiting, assessment and management	3.8 (0.45) ^a	2.8 (0.41) ^a	2.4 (1.07) ^a
Diarrhea, assessment and management	3.8 (0.45)	2.5 (0.58)	2.5 (1.13)
Constipation, assessment and management	3.8 (0.45) ^a	2.5 (1.29) ^a	2.2 (1.25) ^a
Fatigue, assessment and management	3.2 (0.84)	3.4 (0.79)	2.8 (0.79)
Conducting a family conference	3.2 (0.45)	3.1 (0.38)	2.9 (0.83)
Giving bad news to a patient or family member	3.0 (0.00)	3.0 (1.10)	2.4 (1.13)
Discussing inpatient hospice referral	2.8 (0.84)	3.3 (0.46)	2.6 (1.17)
Discussing a shift in treatment approach	3.0 (0.00)	3.00 (0.82)	2.0 (0.93)
Discussing treatment withdrawal	3.2 (0.84)	NA	2.4 (1.19)
Assessing patient decision-making capacity	3.2 (0.84)	3.4 (0.79)	2.7 (0.79)
Assessment and management of adult patient grief	3.6 (0.55)	3.5 (0.55)	2.7 (0.90)
Assessment and management of pediatric patient grief	3.0 (0.00)	2.7 (0.52)	2.5 (0.82)
Discussing an end-of-life prognosis with a patient's family member ^a	3.6 (0.55) ^a	3.3 (0.52) ^a	2.6 (0.52) ^a

Abbreviation: NA, "not applicable to my role" answered by all participants in the group.
^aKruskal-Wallis test <.05.

and management of constipation ($H(2) = 7.034, P = .030$), and discussing an end-of-life prognosis with a patient's family member ($H(2) = 7.794, P = .020$). For all of these variables, clinical staff was more likely to report higher self-competence than support staff and caregivers. The 16 remaining self-competence variables were not found to be significantly different based on palliative care provider type. Post hoc analysis was not performed because of small sample size.

Priorities for Education

The majority of participants rated all future education categories as either "a priority" (3 on the Likert scale) or "definitely a priority" (4 on the Likert scale), with a total mean

score of 3.4 of a total possible range of 1 to 4 (SD, 0.83). Sixteen providers (67%) selected pediatric palliative care as their top priority for education, 14 (58%) chose pain assessment and management, 11 (46%) chose spirituality in end-of-life care, 10 (42%) chose hospice care (the who, why, when, and where), and 6 (25%) chose end-of-life communication skills (Table 3). None of the providers chose assessment and management of nausea and vomiting as a top priority.

DISCUSSION

This pilot study is the first to elicit palliative care provider self-competence for nonphysician palliative care staff in

**TABLE 3** Top 3 Priorities for Future Education

Education Topic	Score
Pediatric palliative care	16
Pain assessment and management	14
Spirituality in end-of-life care	11
Hospice care: the who, when, why, and where	10
End-of-life communication skills	6
Terminal delirium, assessment and management	5
Intravenous hydration and nonoral feedings	4
End-of-life ethics	3
Fatigue, assessment and management	3
Constipation, assessment and management	2
Terminal dyspnea, assessment and management	1
Nausea/vomiting, assessment and management	0

Kenya. The results support the hypothesis that self-competence scores differ according to palliative care provider type. Some of these differences were expected given the scope of practice of nurses and clinical officers compared with that of nonclinical staff. For instance, for clinical skills such as performing a basic pain assessment and the assessment and management of constipation, one would expect that clinical staff have higher self-competence compared with nonlicensed caregivers. However, clinical staff surprisingly did not show higher self-competence in the use of parenteral opioid analgesics; use of adjuvant analgesics; assessment of pain in the nonresponsive or confused patient; or the assessment and management of pediatric pain, terminal delirium, terminal dyspnea, or fatigue when compared with other staff. All the previously mentioned clinical skills are crucial for symptom management and end-of-life care, although adjuvant analgesics (eg, tricyclics, steroids, anti-convulsants) and parenteral analgesics are rarely used at Kimbilio Hospice, and hospice skills are different from those required in inpatient settings. However, this finding identifies topics for future education, as these skills are within providers' scope of practice. On the other hand, nonclinical staff felt competent performing some clinical skills that are outside their profession's scope of practice, which warrants further investigation and clarification. Finally, support staff disclosed significantly higher self-competence in performing a basic pain assessment and discussing an end-of-life prognosis with a patient's family member than caregivers. This finding may be expected, because support staff reported more years of formal training than did care-

givers. However, caregivers and support staff both spend extended time with patients and their caregivers, and therefore caregivers can be empowered through additional training to improve these skills.

As reported in the Results, clinical staff responded with a 3 ("competent to perform with team consultation") or 4 ("competent to perform independently") for more than 90% of survey questions in both clinical care and patient and family interactions. The survey response choice of 3, "competent to perform with team consultation," was created for this pilot study to replace "competent to perform with minimal supervision," because at Kimbilio Hospice, palliative care staff often make decisions collaboratively rather than independently with supervision.²³ Support staff and caregivers also had high rates of answering a 3 to 4 in domains I and II, with many caregivers selecting response 3 in both categories. However, a caregiver's interpretation of the assessment and management of diarrhea with team consultation is most likely different from how a support staff or clinical staff would interpret that same team interaction, for example. This raises the question of whether palliative care self-competence should be evaluated based on independent skills versus on the successful collaboration and shared decision making of an interdisciplinary team. Even so, the clinical implications of high self-competence are encouraging, because health care providers who trust their professional competencies will act more competently, leading to higher performance, goals, and perseverance in challenging clinical scenarios.¹⁸ In the rural setting of Kimbilio Hospice, staff perceptions of their competence are critical for decision making, quality of care, and patient outcomes. During night shifts for instance, when only 1 clinical staff works at the hospice at a time, self-competence is critically important for patient care.

Clinical and support staff had similar mean composite self-competence scores over all the variables in the patient and family interactions category. The support staff included both licensed and unlicensed staff, as well as clinical and nonclinical personnel. Interestingly, support staff had a higher rate of 45% in answering "not applicable to my role" in the clinical care category compared with 22% among caregivers, suggesting that support staff might have higher role clarity than caregivers. Another interpretation could be that because caregivers have the most frequent contact with patients compared with clinical and support staff, they may try to advocate for their patients by providing care outside their formal job descriptions. Regardless, because the clinical staff response rate was 100% in both domains, the trends in their responses are the most reliable and useful for the understanding of palliative care provider self-competence based on this pilot study.

Across all provider types, the similar mean composite self-competence survey response scores in patient and family interactions and clinical care (mean, 2.9 in both categories)



suggest that the Kimbilio staff team as a whole has similar self-competence in both clinical and psychosocial aspects of patient care. It is within everyone's scope of practice to communicate with patients and families, whether independently or as a team, which is a strength of the Kimbilio Hospice palliative care providers. Clinical staff felt highly competent in many areas, with mean scores greater than 3 for all variables except for inpatient hospice referral, the use of intravenous/injectable opioid analgesics, and the assessment of pain in the pediatric patient.

The entire sample of palliative care providers at Kimbilio Hospice was invited to participate in this study. The providers who had less than 1 year of palliative care experience had higher self-competence than did those with more experience across all provider types. One possible explanation for this is that 4 clinical staff members who have had formal training in palliative care reported less than 1 year in the field yet had higher self-competence in general than did caregivers, who had a median of 3 to 4 years working in palliative care (Table 1). Self-competence in palliative care therefore could potentially be attributed to education and training rather than years of work experience. However, this phenomenon could also be influenced by hubris, making the case that validated indicators for true palliative care competence, along with self-competence, should be studied and described to ensure patient safety and outcomes. Providing high-quality, evidence-based palliative care to patients in an inpatient hospice setting requires a distinct set of skills and experiences compared with providing care at the bedside in a hospital setting. Effective methods of improving the competency of palliative care providers must be further investigated.

Pediatric pain assessment was a self-competence area in which all staff reported low competence, and pediatric palliative care was most frequently selected as a topic for future education and training. This finding was consistent with a previous study in which Ugandan health care providers identified communication with children as a top priority for palliative care education.¹⁶ Based on competency training interventions in the United States,²⁴ educational programs designed to improve knowledge and skills have the potential to build self-competence among palliative care providers in rural hospice or palliative care settings in East Africa. Policymakers and directors of palliative care institutions must consider competency training to strengthen the quality of patient care and minimize moral distress among providers. Future education and training programs at Kimbilio Hospice and at hospices throughout Kenya must focus on pain management, pediatric palliative care, and spiritual care, based on the results of this study and others.¹⁶

Limitations of this study include subject bias, particularly in section II, which assessed providers' priorities for future education and training. Although the intentions of

the study were made clear to the entire staff team and future education and training opportunities were not discussed or promised as a part of this project, participants may have responded to the questions based on expectations that the researchers would be able to fund future training at the hospice. Furthermore, many study participants answered "not applicable to my role" for 19% of the questions in section I, influencing the power of the statistical analysis and the generalizability of the results to the inpatient hospice staff. Given the nature of this small pilot study, however, it provides preliminary data to inform future studies. Although the results of the study are not generalizable beyond the setting of Kimbilio Hospice in Western Kenya, this study could be replicated by administering the survey at other hospices and palliative care services throughout Kenya and other sub-Saharan African countries. It could also be piloted in developed countries such as the United States as a comparison study to assess larger trends in palliative care provider competencies and training needs.

These results provide initial evidence that Kenyan palliative care providers and staff have varying levels of self-competence. Educational programs can be bolstered to build palliative care competencies and skills in clinical care and patient and family communication in Kenya. Continuing this research would be in line with the Declaration of Venice, which highlights the agenda for global palliative care research and education in developing countries by responding to the specific needs of patients within their geographical and socioeconomic and cultural contexts.¹

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