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Using a supportive care framework to understand and improve palliative care among cancer patients in Africa

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ABSTRACT

Objective: Cancer incidence and mortality are increasing in Africa, which is leading to greater demands for palliative care. There has been little progress in terms of research, pain management, and policies related to palliative care. Palliative care in Africa is scarce and scattered, with most African nations lacking the basic services. To address these needs, a guiding framework that identifies care needs and directs palliative care services could be utilized. Therefore, using the supportive care framework developed by Fitch (Fitch, 2009), we here review the literature on palliative care for patients diagnosed with cancer in Africa and make recommendations for improvement.

Method: The PubMed, Scopus, CINAHL, Web of Science, Embase, PsycINFO, Social Sciences Citation Index, and Medline databases were searched. Some 25 English articles on research from African countries published between 2004 and 2014 were selected and reviewed. The reviewed literature was analyzed and presented using the domains of the supportive care framework.

Results: Palliative care patients with cancer in Africa, their families, and caregivers experience increasing psychological, physical, social, spiritual, emotional, informational, and practical needs. Care needs are often inadequately addressed because of a lack of awareness as well as deficient and scattered palliative care services and resources. In addition, there is sparse research, education, and policies that address the dire situation in palliative care.

Significance of Results: Our review findings add to the existing body of knowledge demonstrating that palliative care patients with cancer in Africa experience disturbing care needs in all domains of the supportive care framework. To better assess and address these needs, holistic palliative care that is multidomain and multi-professional could be utilized. This approach needs to be individualized and to offer better access to services and information. In addition, research, education, and policies around palliative care for cancer patients in Africa could be more comprehensive if they were based on the domains of the supportive care framework.

KEYWORDS: Palliative care, Africa, Cancer, Supportive care framework

INTRODUCTION

Palliative care is interdisciplinary in nature and is offered to improve the quality of life for terminally ill patients and their family members. As an essential part of cancer care, palliative care provides relief of symptoms as well as spiritual and psychosocial support from the time of diagnosis through to the end of life (Tazi, 2011; Hui et al., 2013).

Cancer is an emerging noncommunicable disease in Africa. In 2012, 57% (8 million) of new cancer cases and 65% (5.3 million) of cancer deaths occurred in less-developed regions like Africa (GLOBOCAN, 2012). Cancer incidence and mortality are expected

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to increase, with over 7 million deaths likely to occur in countries that cannot afford healthcare (Vastag, 2006). As the number of persons affected by cancer in Africa increases, the need for evidence-based palliative care is more than ever warranted. Since 2005, when the World Health Assembly identified palliative care as a humanitarian need, and because of significant needs of people living with HIV/AIDS and cancer, there has been growth in palliative care services in Africa (Grant et al., 2011*b*; Mwangi-Powell et al., 2013; 2010). This expansion has involved increased adoption of cancer pain medication, more research on palliative care, and development of policies and strategic plans for palliative care (Mwangi-Powell & Dix, 2011). Despite this progress, provision of palliative care in Africa remains scattered and deficient (Harding & Higginson, 2005; Clark et al., 2007), and the immense gaps still exist.

Presently, palliative care in Africa is far from adequate, with less than 5% of those in need able to access it (Grant et al., 2011*b*). Palliative care patients, their families, and caregivers continue to experience poor quality of life and minimal physical, psychological, and informational support (Selman et al., 2011; Jack et al., 2011; Harding et al., 2011; Gysels et al., 2011). To address these inadequacies, a guiding framework that identifies needs and directs required services is warranted. One such framework is the supportive care framework formulated by Dr. Margaret Fitch and her colleagues, which is designed as a tool for cancer care professionals to conceptualize what type of assistance cancer patients require and how planning for service delivery might be approached (Fitch, 2009).

The supportive care framework is made up of psychological, physical, social, spiritual, emotional, practical, and informational domains (Fitch, 2008). The framework is based on concepts of cognitive appraisal, coping and adaptation, human needs, cancer-specific factors (such as unexpected life events), emotional distress, and the need for tailored interventions. In the present review, we thus assess, analyze, and highlight the palliative care needs of African patients diagnosed with cancer and make recommendations based on Fitch's supportive care framework (Fitch, 2008; 2009). The supportive care framework can be employed to understand and help provide better end-of-life health and well-being for cancer patients in Africa. The framework emphasizes a multidomain and multi-professional approach to palliative care. It recommends individualized assessment, analysis, and provision of palliative care (Fitch, 2008). If utilized, the health and well-being of palliative care patients could be improved. Palliative care patients with cancer sometimes present with care needs that are interrelated and experienced concurrently, so that, to provide better health and well-being, a supportive care framework approach that is multidomain in nature might be useful.

METHODS

A review of the literature was conducted to arrive at an understanding of the palliative care situation in Africa. Electronic databases were searched for the literature on palliative care among cancer patients in Africa (e.g., PubMed, Scopus, Web of Science, Embase, PsycINFO, Social Sciences Citation Index, Medline, and CINAHL). The literature search was limited to palliative care research conducted in African nations within the prior 10 years (2004–2014), so that we collected the most recent information available in this area. The literature was limited to English articles due to an unavailability of translation resources. Medical subject headings (MeSH) search terms in the literature review included "palliative" OR "supportive" OR "hospice" OR "end of life" AND "Africa" (expanded to include specific countries) AND "neoplasm." Additionally, appropriate articles cited in initially selected papers were included in the review. After selecting the articles, the supportive care framework was employed to analyze and present our findings (Fitch, 2008). Some 25 studies were included in our review.

In the following sections, the palliative care situation in Africa is presented in general and then with a focus on the various supportive care framework domains. A discussion and recommendations for palliative care among cancer patients in Africa follow.

PALLIATIVE CARE SITUATION IN AFRICA

Palliative care in most African countries is limited, as only a handful have functional palliative care systems (Grant et al., 2011*a*). In one study on hospice and palliative care services in Africa, less than 50% of 53 countries reported having palliative care activity (Clark et al., 2007). Among those with palliative care services, only four (Kenya, South Africa, Tanzania, and Uganda) have integrated palliative care into their mainstream healthcare services or cancer strategies Clark et al., 2007). Two countries (Rwanda and Swaziland) have developed standalone national palliative care policies.

In countries with existing palliative care programs, services are often provided through nongovernmental, and faith- or community-based organizations, with no tangible plans for sustainability (Clark et al., 2007). Additionally, the existing programs are hampered by weak healthcare systems, legal and regulatory limitations, a shortage of healthcare staff, inadequate healthcare professional training, and cultural misconceptions (Jemal et al., 2012; Tazi, 2011). When palliative care services are lacking, patients and their families tend to suffer poor health and impaired well-being (Selman et al., 2011). African cancer patients tend to rely on their families, communities, and faith groups to meet their palliative care needs (Murray et al., 2003). These family, faith, and community members often have a limited understanding of palliative care and thus fail to adequately address care needs. Family and caregivers are sometimes overburdened by care demands, which leads to physical, psychological, and social health problems (Jack et al., 2011). In this regard, a better holistic approach to address palliative care deficiencies in Africa is needed (see Table 1).

Psychological Domain

The ability to cope with the disease experience and its associated consequences is the main feature of the psychological domain (Fitch, 2008). Almost every cancer patient experiences psychological problems to some degree during the trajectory of the disease. Our review of the literature demonstrated that the experience of living with cancer in Africa creates significant psychological problems for the affected patients and caregivers (Harding et al., 2011; Hameed, 2011). Common psychological problems include depression, difficulties in coping, poor self-image and self-esteem, loss, and sexual challenges (Harding et al., 2011; Kamau et al., 2007; Lavy, 2007; Mwanda et al., 2004).

In a study by Mwanda et al. (2004) conducted in Kenya, 93% of palliative care patients complained of difficulties with coping. These patients made mention of feelings of misery and pain, an inability to work, and family health issues. In addition, patients presented with depression that was manifest by work retardation, insomnia, and anorexia. In addition, a study by Harding and colleagues (2011) carried out in Uganda and South Africa reported pain and psychological problems for three of every four patients. Psychological symptoms like "I don't look like myself" ($n = 21$, 18.8%) and sexual problems ($n = 43$, 38.4%), were some of the most severe symptoms (Harding et al., 2011, p. 53).

The reviewed studies also demonstrated that psychological well-being in Africa is hampered by age (being younger than 50 years), inaccessibility and unavailability of palliative care services, poor communication, deficiency of information, and social isolation (Kamau et al., 2007; Masika et al., 2012; Selman et al., 2009; 2011). African patients affected by the aforementioned factors usually developed psychological distress. In fact, a study by Harding et al. (2011) that involved 112 patients in South Africa and Uganda reported mean psychological distress indices that were much higher than those reported by patients in the United States and China (Hwang et al., 2004; Lam et al., 2008; Bekelman et al., 2009; Tranmer et al., 2003).

These findings carry critical implications for palliative care. The high prevalence of psychological symptoms among cancer patients in Africa calls for holistic psychological interventions. Such interventions need to be theoretically driven, locally modified, and individually tailored. In cases where psychological approaches have been used in Africa, care support has come from family, community members, and volunteer health workers (Herce et al., 2014; Jack et al., 2011). Volunteer health workers in countries like Uganda offer psychological care through counseling, emotional, and financial support (Jack et al., 2011). Such efforts need to be fostered and incorporated into more holistic efforts.

Physical Domain

Physical comfort, pain relief, proper nutrition, and an ability to carry out usual daily functions encompass the physical domain (Fitch, 2009). In the reviewed studies, such physical problems as pain, weight loss, fatigue, and shortness of breath were frequently experienced by palliative care patients with cancer (Mwanda et al., 2004). Among the reported physical symptoms, pain was most frequently experienced (Harding et al., 2011; Tapsfield & Jane Bates, 2011). In studies by Alsirafy et al. (2011) and Harding et al. (2011), cancer patients in Egypt, Uganda, and South Africa reported higher pain levels than cancer patients elsewhere. Harding et al. (2011) found pain to be the most severe (23.2%) and most prevalent (87.5%) symptom among 18 others. Similarly, Powell et al. (2014) found that healthy Namibians were most concerned about pain ($n = 52$, 26.1%) at the end of life.

Higher unmet physical needs were related to deficiency of palliative care services, which included unavailability of comfort medication, lack of palliative care expertise, and lack of awareness. African countries like Uganda that have devised ways to address needs in the physical domain have mainly used local approaches (Jack et al., 2011; Merriman & Harding, 2010). Ugandan community volunteer workers provide direct physical care that includes bathing, feeding, and wound care to palliative care patients (Jack et al., 2011). Healthcare providers also locally prepare and prescribe cheap oral morphine for pain management and use locally available pawpaw seeds to manage constipation (Merriman & Harding, 2010). In Egypt, some healthcare providers run 24-hour, 7-days-a-week outpatient pain and symptom

Table 1. *Studies on palliative care among cancer patients in Africa*

Study	Methods	Study Aim	Participants	Location	Main Themes	Supportive Care Framework Domains
Elumelu et al. (2013)	Retrospective study	To evaluate the pain management and palliative care services accessed by patients with advanced cervical and breast cancer	Patients with advanced uterine cervical (80) and breast (98) cancer	Nigeria	Pain was the main symptom at presentation for palliative care. Accessibility to care was a challenge because of place of residence.	Physical: pain, vomiting, nausea, weight loss, cough, dyspnea, and lymphedema Practical: financial constraints, Psychological: depression Social: lack of family support
Kamuhabwa & Ezekiel (2009)	Quantitative	To assess the rational use and effectiveness of morphine for management of pain in palliative care of cancer patients at Ocean Road Cancer Institute in Tanzania	Patients and patients' medical records, caregivers (7)	Tanzania	37% of participants were aware of morphine. Oral morphine was the most common route of administration. 57% of patients found morphine doses to be effective in pain management, and 93% continued with the therapy despite the side effects. No indications of irrational use. Morphine-induced side effects were well managed. Positive attitude toward the use of morphine.	Physical and informational
Logie & Harding (2005)	Multi-method survey, key informant interviews, direct observation, and audit of clinical practice	To evaluate a morphine roll-out program in Uganda by identifying challenges to implementation that may inform replication	Clinicians, patients, senior clinical and government staff	Uganda	Regulations facilitated prevention of misuse and leakage of morphine from the supply chain. There was confusion and complexity in storage and authorization, which led to discontinuation of opioid pain management at the patient level and delays in trying to obtain supplies. Continued neglect to prescribe among clinicians and public fear of opioids led to underprescribing. Clinical skills were deficient.	

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Table 1. *Continued*

Study	Methods	Study Aim	Participants	Location	Main Themes	Supportive Care Framework Domains
Eyelade et al. (2012)	Descriptive observational study	To determine the effectiveness of oral morphine among Nigerian patients	Patients	Nigeria	Oral morphine was effective in reduction of cancer pain among Nigerian patients	Physical
Harding et al. (2011)	Quantitative	To determine the symptom prevalence and burden among advanced cancer patients in two African countries	Patients	South Africa and Uganda	Most common cancers were breast, cervix, and lung. The most prevalent symptoms were pain (87.5%), lack of energy (77.7%), feeling sad (75.9%), feeling drowsy (72.3%), and worrying (69.6%). The five symptoms ranked as most severe were pain ($n = 26$, 23.2%), sexual problems ($n = 24$, 21.4%), weight loss ($n = 21$, 18.8%), "I don't like myself" ($n = 21$, 18.8%), and lack of energy ($n = 20$, 17.9%).	Physical: pain, lack of energy, feeling drowsy, sexual problem, weight loss, difficulty walking, among others Emotional: feeling sad, worry, feeling irritable and nervous Psychological: "I don't like myself"
Herce et al. (2014)	Rapid evaluation using chart reviews, structured interviews, and semistructured interviews	To evaluate early Neno Palliative Care Program (NPCP) outcomes and better understand palliative care needs, knowledge, and preferences	Patients (63), caregivers	Malawi	High prevalence of pain and psychosocial needs. Patients were treated with morphine for pain. Patients with psychosocial needs were referred to psychosocial services that included community health worker support, socioeconomic assistance, or both. Patients often reported needing income or food.	Physical: pain, numbness, cough, difficulty sleeping, and shortness of breath Informational: illness, diagnosis, medication, treatment, treatment plans. Emotional: anger, fear, helplessness, stress, optimism, gratitude Practical: caregiver role, employment, finances, legal, distance, lack of food, housing, lack of a job, financial, lack of support, among others

Selman et al. (2011)	Quantitative; survey	To describe quality of life among patients with incurable progressive disease receiving palliative care in South Africa and Uganda; to compare levels of quality of life in cancer and HIV; to determine how domains of quality of life correlate with overall quality of life and compare levels of quality of life in this population with those in other studies using the same tool	Patients	South Africa and Uganda	285 patients participated: 80.7% had HIV, 17.9% had cancer, and 1.4% had other conditions. Mean global QoL was 2.81 (0 = worst and 5 = best). Patients scored most poorly on function, followed by well-being, symptoms, transcendent, and interpersonal. Most important to patients were close relationships, feeling at peace, a sense of meaning in life, being active, and physical comfort. Patients receiving palliative care in South Africa and Uganda exhibited significantly poorer QoL compared to similar populations in the United States.	Spiritual: have a sense of meaning in life Physical: being active and physical comfort Social: having close relationships Spiritual: feeling at peace
Kamau et al. (2007)	Cross-sectional descriptive study	To determine the extent to which diagnosis and treatment of inoperable cervical carcinoma affects quality of life (QoL).	Patients (women undergoing radiotherapy for inoperable cancer)	Kenya	There is a high prevalence of disruptions in almost all aspects of quality of life. On the social domain, between 33 and 44% perceived that family members had withdrawn social support. 44.7% reported a decline in living standards, 28.3% reported marital discordance, decreased self-esteem was reported by 30.9%, and a decrease in self-projection was reported by 36.2%. In sum, severe deterioration of QoL results from a diagnosis of inoperable cervical cancer and subsequent therapies.	Social: withdrawn social support

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Table 1. *Continued*

Study	Methods	Study Aim	Participants	Location	Main Themes	Supportive Care Framework Domains
Katumba et al. (2013)	Case series	To describe health-related quality of life among women with ovarian cancer at Mulago Hospital, Kampala, Uganda	Patients: women (36)	Uganda	Results relevant to this paper: most patients were dissatisfied with life and scored low on all health-related QoL domains (physical, psychological, social well-being, environment). The psychological domain had the lowest score on the WHOQpL−BREF.	Physical: abdominal symptoms such as bloating, nausea and constipation. Combination of abdominal, urinary, and constitutional symptoms such as backache, weight loss, and breathlessness. Psychological Social Practical: environment
Jack et al. (2011)	Qualitative study: interviews, focus groups.	To evaluate the impact of a community volunteer program	Patients (21), community volunteer workers (32), and hospice clinical teams (11).	Uganda	Community volunteer program was valuable with an impact on patients and families. How community volunteer program acted as a bridge to the hospice in identifying patients. Developing financial challenges that are emerging that could potentially impact the program were reported. Main themes: the impact of the community volunteer workers on patients and their families (physical care, practical help, impact on families); education and support (counseling, education, bridge to hospice); challenges faced by community volunteer workers and (travel/access, expectations of the patients, and financial challenges).	Physical care Practical care: money/financial Informational: education, communication Emotional care: counseling

Powell et al. (2014)	Cross-sectional quantitative study; street	To identify the priorities and preferences of Namibian public end-of-life care	Street participants (adults of Namibian nationality)	Namibia	Being in pain was the most common end-of-life symptom and problem. Having needed information was the most important aspect of care. The majority of patients (64%) desired their end-of-life care to focus on improving their quality of life rather than extending it. 40% did not want to know if they had a limited time left to live. Hospital (48%) and home (32%) were most preferred places of death. The most important end-of-life priority was keeping a positive attitude (64%). Having a close relative or friend diagnosed with a serious illness was associated with a 2.3-fold increase in the odds of preference for a hospital death.	Physical: pain, having no energy, breathlessness Informational: information on care options, symptoms, and expected problems Emotional:: attitude Practical: place of death

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Table 1. *Continued*

Study	Methods	Study Aim	Participants	Location	Main Themes	Supportive Care Framework Domains
Selman et al. (2009)	Qualitative study (semistructured interviews)	To explore the information needs of patients with progressive life-limiting disease and their family caregivers in South Africa and Uganda and to inform clinical practice and policy	Patients (90) and family caregivers (38) 28 patients had cancer, 61 had HIV (including 6 dual HIV/Cancer diagnoses), and 1 had motor neurone disease	South Africa and Uganda	Deficiency of information from healthcare providers led patients and families to seek for information elsewhere. Information needs: patients and caregivers reported information needs regarding causes, prognosis, symptoms and treatment, and financial or social support. Impact of unmet needs: poor provision of information had a detrimental effect on patients' and caregivers' ability to cope. Communication: negative experiences of communication with general healthcare staff were (misinformation, secrecy, insensitivity). Barriers to effective provision of information, barriers related to symptoms, culture, time constraints, and paternalism in general healthcare.	Informational: disease causes, prognosis, symptoms, treatment, communication Practical: financial support Social
Malloy et al. (2011)	Quantitative	To assist in the development of palliative care throughout Kenya by enhancing the knowledge and skill of faculty members in palliative care so they can integrate this content into existing nursing curricula	Nursing faculty	Kenya	The training course was rated favorably (between 4.57 and 4.91 on a scale of 0 to 5, with 5 being "very helpful"). The End-of-Life Nursing Education Consortium provided educational and other support to faculty teaching in nursing schools in Kenya so they could advance the palliative care efforts in their country.	

Paice et al. (2010)	Training program Quantitative	Training to provide nurses with knowledge, expertise, and tools to better care for the dying and to educate others	39 participants from Tanzania, Rwanda, Kenya, Zanzibar, Malawi, and Zambia	Tanzania	Participants rated the course as excellent initially and eight months later.	
Machira et al. (2013)	Quantitative educational program Quasiexperimental with pre- and post-testing	To implement and evaluate an educational pain management program (PMP) for nurses in Kenya	Nurses	Kenya	Increase in knowledge on pain management following PMP training.	
Lavy (2007)	Quantitative	To determine the prevalence of different symptoms and signs in palliative care	Children (95)	Malawi	77% of children had HIV, 17% had cancer. Common symptoms were pain (27%), cough (22%), and diarrhea (18%). Pain was most common among children with cancer than with HIV/AIDS. Many symptoms were not reported initially but were presented upon direct questioning. 87% had a history of weight loss, 56% had a history of fever, and 51% had mouth sores. There is a need for holistic palliative care that addresses the physical, emotional, and social problems associated with chronic and terminal illness.	Physical: pain, cough, and diarrhea, history of weight loss, fever, and mouth sores

Continued

Table 1. *Continued*

Study	Methods	Study Aim	Participants	Location	Main Themes	Supportive Care Framework Domains
Tapsfield & Jane Bates (2011)	Retrospective review of case notes	To examine six months of inpatient palliative care service at the Tiyanjane Clinic	Patients' medical charts	Malawi	Pain was the most commonly reported symptom (74%). Other common symptoms were shortness of breath (50%), inability to walk (44%), and weakness (37%). Four patients (3%) reported symptoms of anxiety/depression. 83% of cancer patients reported pain. Analgesics were prescribed to 117 (85%) of patients during admission. 77 (56%) were prescribed oral morphine. The mean total daily dose of morphine was 30 mg (range 9–100 mg). 64% of cancer patients were prescribed morphine with a mean daily dose of 34 mg. the average length of involvement of the palliative care team was 6.3 days (range 1–39 days). 23% of cancer patients died on the ward.	Physical: pain, shortness of breath, inability to walk, weakness Psychological: anxiety/depression
Graham et al. (2013)	Cross-sectional qualitative (interviews and focus groups)	To identify the care needs and cultural practices of Xhosa patients and families at the end of life, from the perspective of traditional healers	Traditional healers	South Africa	Care needs were grouped as before death and after death. Care needs before death focused on relief of psychosocial suffering, the importance of the spoken word at the deathbed, and the importance of a relationship and spiritual connection at the end of life. Rituals after death were similar but differed depending on family customs or the wishes of the dying person	Psychological Spiritual

Mabena & Moodley (2012)	Qualitative study	To describe the psychological understandings of chronic illness	Patients diagnosed with cervical cancer	South Africa	Key themes were “I look at it as a project”: “meaning and purpose”; “It is God’s will, you see”; “The Divinity”; “This thing resembles a coffin”; “Confronting mortality,” “She put a mut on my gate”; “traditional African illness schemas”; “You find that they compete”; “Christian traditional conflict”; “Did I kill someone by insulting them?”; “Punishment”;; “It’s not only me”: “Mutuality and feeling of communion.”	Spiritual: meaning of illness
Harding (2014)	Quantitative Cross-sectional self-reported data	To measure multidimensional well-being among advanced HIV and/or cancer patients in three African countries and determine the relationship between two validated outcome measures	Adult palliative care patients	Kenya, Uganda, and South Africa,	Social/family and economic well-being were important factors in palliative care patient well-being.	Practical Social
Nwankwo & Ezeome (2011)	Cross-sectional study; self-administered questionnaire	To ascertain the perceptions of physicians on truthtelling for cancer diagnosis and prognosis	Physicians (228)	Nigeria	81 (46.5%) always, 54 (31.2%) generally, and 38 (22%) rarely disclosed cancer diagnosis and favorable prognosis to patients. Only 7.5% would disclose the truth about the prognosis to patients when the cancer was advanced. Likelihood to disclose the truth was related with physician’s age, specialty, training in palliative care, doctor’s view on truth disclosure, and if the physician had cancer. Most physicians need training in physician–patient communication.	Informational

Continued

Table 1. *Continued*

Study	Methods	Study Aim	Participants	Location	Main Themes	Supportive Care Framework Domains
Philips & Lazenby (2013).	Mixed-methods	To describe the quality of life and the emotional and spiritual well-being of people at the end of life and the sources of distress for their primary caregivers in Gaborone, Botswana	Primary caregivers (28)	Botswana	Poor quality of life. Patients experienced high levels of emotional and spiritual distress. Similarly, caregivers experienced distress as a result of increasing physical needs.	Spiritual Emotional Psychological

management clinics (Hameed, 2011), and countries like South Africa, Uganda, Nigeria, Tanzania, and Malawi procure and administer morphine to palliative patients (Bates et al., 2008; Merriman & Harding, 2010; Jagwe & Merriman, 2007; Kamuhabwa & Ezekiel, 2009; Selman et al., 2011; Eyelade et al., 2012; Tapsfield & Jane Bates, 2011).

Social Domain

According to Fitch (2009), the social domain includes those needs related to relationships within the family, being accepted in the community, and involvement in other relationships. A cancer diagnosis can negatively affect the relationship between a patient and the family, friends, community, and church members. In the reviewed studies, the social domain was evident in presented social needs, which included social withdrawal, a desire for better social relations, and the need for social support (Kamau et al., 2007; Katumba et al., 2013; Masika et al., 2012; Mwanda et al., 2004; Selman et al., 2011; Jansen van Rensburg et al., 2013).

Gaps in the social domain were influenced by practical issues like distance and transportation costs. Patients in Tanzania were sometimes hospitalized in institutions that were far from where their families and friends resided (Masika et al., 2012). Because of the distance and travel costs, some relatives could not afford to visit. This combination led to social isolation and withdrawal (Mwanda et al., 2004; Selman et al., 2009). Though some patients accepted the social limitations, their desire for social support remained evident. On the other hand, the positive aspects of the social domain were also presented in some of the reviewed studies. For instance, to overcome social isolation, some patients and volunteers in Tanzania visited those whose family members could not (Masika et al., 2012).

Emotional Domain

Fitch (2008) described emotional needs as the desire for comfort, for a sense of belonging, for understanding, and for reassurance when faced with stressful and upsetting situations. Emotional needs are common among palliative care patients and their caregivers (Herce et al., 2014). Palliative care patients in African countries often present with a desire for peace and meaning in life, feelings of sadness, worry, tension, depression, irritability, and nervousness (Harding et al., 2011; Herce et al., 2014; Kamau et al., 2007; Selman et al., 2011). Other palliative care patients, like those in Kenya, presented with suicidal ideation, self-accusation, and guilt (Mwanda et al., 2004). In a Ghanaian study by Clegg-Lamptey and colleagues (2009), 38 (42.7%) of breast cancer patients expressed a fear of cancer, while others expressed shock, devastation, and depression.

Some of the presented emotional needs were exacerbated by the illness and by unmet physical, social, informational, and practical needs. In a study by Selman et al. (2011) conducted in Uganda and South Africa, some individuals expressed worry and isolation and a lowered sense of meaning in life after being diagnosed with cancer. Poor communication and lack of information also often resulted in emotional problems among palliative care patients in these two countries (Donovan-Kicken & Caughlin, 2011).

Spiritual Domain

The spiritual domain is about the need to find meaning and purpose in life, and the need to practice a religious belief (Fitch, 2008). Spiritual wellness and spiritual needs in palliative care were rarely mentioned in the reviewed studies. Participants in a Ugandan/South African study stated a desire for spiritual support (Selman et al., 2011), while in Tanzanian (Masika et al., 2012) and Botswanan (Philips & Lazenby, 2013) studies, patients and caregivers experienced some level of spiritual support.

Where patients desired spiritual support, concerns like having a low sense of meaning in life were voiced (Selman et al., 2011). In situations where spiritual support was experienced, patients benefited from religious practices. In a study by Masika et al. (2012), cancer patients often went to church or mosque to seek spiritual support. They also received hospital visits and prayers from religious people, which helped to improve their sense of hope. Similarly, in a study by Philips & Lazenby (2013) conducted in Botswana, some respondents (46.4%) mentioned that their loved ones were visited by a spiritual advisor when death approached. Visits by a spiritual advisor were most common among patients who died while in a hospice compared to those that died while in a hospital or at home. The experience of having a spiritual advisor at the time of death was most related to spiritual satisfaction (Philips & Lazenby, 2013).

Informational Domain

Fitch (2008) associates the informational domain with palliative care needs for information in order to reduce the symptoms of fear, confusion, and anxiety. When patients and their families have adequate information, they are better prepared to make informed decisions and acquire the required skills (Fitch, 2008).

African palliative care patients, the general public, and care providers have a limited awareness of palliative care (Mwangi-Powell, 2012; Downing et al., 2012; Powell et al., 2014; Selman et al., 2009; Paice et al., 2010). Palliative care patients in Uganda, Tanzania, and South Africa desire information on cancer, prognosis, treatment, how to cope, expected care, length of hospital stay, and financial and social support (Masika et al., 2012; Selman et al., 2009). Some patients in Uganda and South Africa also experienced insincere, insensitive communication with care providers, who often shared information with minimal confidentiality (Selman et al., 2009).

In a cross-sectional study on perceptions of physicians with regard to truthtelling in Nigeria, Nwankwo and Ezeome (2011) found that slightly more than 50% ($N = 92$) of physicians either generally or rarely disclosed cancer diagnoses and favorable prognoses to their patients, and a scant 7.5% disclosed prognoses to patients when the cancer was advanced. When communication is avoided or information is not accurately relayed, poor psychological health is likely manifested by distress, self-blame, anxiety, and depression (Donovan-Kicken & Caughlin, 2011). In a study by Selman et al. (2009), Ugandan and South African patients were most likely to experience worry, fail to practice good self-care, and fail to plan for the future when they lacked adequate information.

Palliative care information needs to be communicated in a direct and compassionate manner that strengthens the relationships among patient, family, and care provider. Better communication can be individually tailored and approached from a discussion standpoint that anticipates the best while at the same time preparing the patient and family for the worst (Back et al., 2003). Furthermore, these discussions can focus on what those affected know about cancer, palliation, and prognosis, what is important to them, and their expectations (King & Quill, 2006).

The limited awareness of palliative care in Africa comes as a result of a paucity of education and training. Only five countries have integrated palliative care into health professionals' educational curriculum, with four of them (Kenya, Malawi, South Africa, and Uganda) recognizing palliative care as an examinable subject (Clark et al., 2007). In cases where progress has been made, palliative care train-the-trainer initiatives have been carried out (Malloy et al., 2011; Paice et al., 2010; Machira et al., 2013). In Uganda, palliative care education has been integrated into the medical training curriculum along with training of community health volunteers (Jack et al., 2011; Merriman & Harding, 2010).

Practical Domain

Fitch (2008) describes practical needs as "direct assistance in order to accomplish a task or activity and thereby reduce the demands on the person (e.g., homemaking services)" (p. 9). In the reviewed

African studies, the most common practical issue involved financial challenges (Herce et al., 2014; Jack et al., 2011; Kamau et al., 2007; Masika et al., 2012; Mwanda et al., 2004). Such challenges result from a reduction in income, unemployment, or an inability to work (Mwanda et al., 2004; Herce et al., 2014; Masika et al., 2012), and they can lead to an inability to purchase medication and provide basic needs, and lead to a feeling that one's standard of living is declining (Masika et al., 2012).

Other practical needs that were raised include unemployment, inaccessibility to healthcare services because of distance and transport challenges, a lack of food, indecent housing, and deficiencies in such commodities as soap, water, clothes, and sugar (Herce et al., 2014; Masika et al., 2012; Table 1). Community volunteer workers in Uganda also presented with practical needs of traveling and inaccessibility (Jack et al., 2011). Some complained of the long distances to their patients' residences, the deteriorating condition of their bicycles, financial limitations, and language barriers (Jack et al., 2011).

To overcome the aforementioned deficiencies, community volunteer workers often play diverse roles, including collecting medicines, food, and water for their patients (Jack et al., 2011). Some volunteers mobilize community members to assist with household duties or engage in chores themselves. Furthermore, some volunteers, family members, the community, and local and government organizations donate food, money, and clothes to some ailing patients (Jack et al., 2011; Herce et al., 2014; Masika et al., 2012).

DISCUSSION AND RECOMMENDATIONS

Cancer can be a highly traumatizing and emotional disease that places immense demands on the health and well-being of affected patients and families. Palliative care provides the necessary support to promote patient and family health and well-being. When palliative care is inadequate or nonexistent, as it is in many African locales (Clark et al., 2007), the experience of living with cancer can be overwhelming. As demonstrated in the reviewed studies, African cancer patients experience increasing physical, psychological, emotional, social, informational, practical, and spiritual needs (Table 1). These multidimensional needs commonly occur concurrently and possibly influence each other (Harding et al., 2011). To address them, we propose utilizing a multidomain supportive care framework to guide holistic palliative care in Africa (Fitch, 2008). This supportive care framework can be employed by healthcare professionals to guide individualized care that includes needs assessment, better access to palliative services, informational support, and self-referral (Fitch, 2008). For better utility, the proposed supportive care framework needs to be incorporated into effective locally generated plans.

Multidimensional and Multi-Professional Approach

Palliative care patients with cancer in Africa benefit from some level of palliative care support (Table 1). Support is commonly provided by patients' families, community volunteers, friends, and spiritual leaders (Jack et al., 2011; see Table 1). However, cancer patients continue to report increasing unmet palliative care needs. To address these needs, better multidimensional holistic support is required. The multidimensional nature of the supportive care framework can be used to approach individual patients with an understanding that they can experience a multitude of needs (Fitch, 2008).

Patients who experience constantly changing interrelated needs will sometimes cope and adapt to situations differently (Fitch, 2008; 2009). Care providers utilizing the supportive care framework may thus offer better palliative care if they individualize and coordinate their assessments and palliative care interventions (Fitch, 2008). Needs could be assessed along the different domains followed by interventions that are matched to an individual patient's needs, desired goals, and coping mechanisms.

A multi-professional approach that includes psychologists, nurses, physicians, social workers, and religious leaders may be needed. A multi-professional approach can reduce the overall cost of care and the time spent in hospital settings (Hearn & Higginson, 1998; Merriman & Harding, 2010). Different professionals may bring diverse expertise to assessment, planning, and management of care needs. The team of professionals needs to demonstrate an integrated supportive care, for example, by providing information throughout the care process and referring patients to the appropriate care professionals.

Palliative Care Information

To arrive at a more holistic approach, caregivers, family, and community members may benefit from information on the interaction of patients' symptoms and on how a coordinated multidimensional/multi-professional approach would be more effective. Such information may describe how to identify patients' needs, analyze them, and provide individually tailored interventions (Fitch, 2008). Care providers will better serve cancer patients if they have a better understanding of their palliative care needs, of the symptoms to watch out for, and the means for addressing them. Care providers may also benefit from an understanding that the health and well-being of palliative care patients can be improved by providing caring and emotional support (Fan et al., 2014). When providing holistic care, providers can utilize supportive skills of listening, being empathetic, and showing acceptance (Fan et al., 2014).

Palliative Care Research

There is a need for more research to better inform palliative care in Africa. Much of the research on palliative care in Africa has focused on pain management (Table 1). More study of the other palliative care needs among African patients with cancer is needed. This research could take a supportive care framework approach that categorizes patients' needs according to different domains (Fitch, 2008). Research on the spiritual, social, and psychological domains among palliative patients with cancer in Africa is now limited (Harding & Higginson, 2005). Research in these areas is needed to define the predictors of health and well-being for African cancer patients that could guide planning and delivery of appropriate palliative care (Selman et al., 2011). Research on palliative care in Africa also needs to expand beyond South Africa, Uganda, Malawi, Tanzania, and Kenya (Table 1). Work from other African nations is necessary to improve our understanding of the palliative care situation in more diverse African settings.

In areas where palliative care has been initiated in Africa, outcome evaluations are needed to ascertain their effectiveness. This is in the context of increasing palliative care needs among African cancer patients. Outcome evaluations of palliative care services could be designed based on a supportive care framework to ensure holistic evaluations (Fitch, 2008). Much of the focus on these palliative care services has been on pain management, with other aspects like quality of life neglected (Selman et al., 2011; Jansen van Rensburg et al., 2013). Therefore, using a supportive care framework to evaluate these services will provide better information on how palliative care domains are addressed and suggest areas for improvement.

CONCLUSION

Palliative care among cancer patients in Africa is presently deficient. In fact, most African nations totally lack palliative care services. Among the few countries that do offer them, such services are hampered by a deficiency of healthcare resources, a lack of trained healthcare personnel, and a lack of appropriate medications. In the wake of these deficiencies, the supportive care framework suggested by Fitch, which has been effective in other settings, could be employed to improve palliative care (Fitch, 2008). We firmly believe that multidimensional approaches in the physical, psychological, social, informational, educational, and research domains could immensely improve palliative care in Africa.

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