

Knowledge of Palliative Care among Medical Interns in a Tertiary Health Institution in Northwestern Nigeria

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ABSTRACT

Background: Palliative care is the proactive care which seeks to maximize quality of life for people and families facing life-threatening illnesses.

Objectives: To ascertain the existing knowledge of palliative care among medical interns and determine the effect of a structured educational intervention on improvement of their knowledge levels.

Subjects and Methods: This is a quasi-experimental, interventional study with a one group pre- and post-test design involving medical interns rotating through the various departments of the Usmanu Danfodiyo University Teaching Hospital, Sokoto. The study population was chosen by convenience sampling method. The interns completed a pre- and a post-test assessment following a structured educational intervention for the evaluation of knowledge of palliative care. Knowledge was evaluated by a self-administered structured questionnaire.

Results: A total number of 49 medical interns were recruited, among whom were 41 males and 8 females. Their ages ranged from 21 to 36 years with a mean of 27.7 (standard deviation 2.14) years. In the pretest, 11/49 (22.5%) of the respondents had poor knowledge level of palliative care; however, in the postintervention, only 2/49 (4.1%) of the respondents had poor knowledge. Similarly, good knowledge levels appreciated from 9/49 (18.4%) to 14/49 (28.6%) while very good knowledge increased from 10/49 (20.4%) to 19/49 (38.8%). This effect was statistically significant (Chi-square test 11.655 df = 3, $P = 0.009$).

Conclusion: There is poor knowledge of palliative care among the interns due to ignorance. Following an educational intervention, the knowledge levels appreciated significantly. Palliative care should be part of the medical curriculum.

Key words: Interns Nigeria, Knowledge, Palliative care

INTRODUCTION

Palliative care is the care of any patient with advanced or incurable disease. The word “palliative” in Latin means “caring.”^[1] Palliative care is thus the proactive care which seeks to maximize quality of life for people and families facing life-threatening illnesses.^[2] Palliative care takes a holistic approach which acknowledges that suffering is more than physical distress and recognizes that patients require a combination of physical,

psychological, social, and spiritual care. The World Health Organization (WHO) defines palliative care as “an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial, and spiritual.”^[3] It falls

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under the quaternary level of prevention, i.e., preventing unnecessary suffering among patients and their families in situations of terminal diseases.

Care of the terminally ill, infirm, and elderly individuals has been a key part of many societies. Since the 4th century, rest house, sarai, sanatorium, and hot springs were developed as special places to attend to the needs of these patients.^[1-3] It has been realized that the needs of terminally ill patients were not met by the then prevailing specialist or nonspecialist health system. Early initiatives in palliative care depended largely on charitable initiatives. Palliative care was considered to be outside the scope of established medicine, a fringe benefit, an extra; it did not merit official recognition or support. Gradually, it has come to be recognized as a specialist unit in the healthcare system. The pioneering works of Dame Cicely Saunders in the United Kingdom and Anne Merriman in Africa drew the attention of the medical community and the public to the evolution of palliative care in the 1960s.^[3,4] Physicians may believe in the value of palliative care but still hesitate to bring up the subject with their patients, feeling that it will destroy their hope or imply a lack of commitment to treatment. Palliative care is usually an organized care which can be given in a hospital setting, hospice, or the home of the patients. Resource constraints in developing countries direct the site of care. Palliative care and hospice services are a neglected aspect of medical discipline, especially in the developing countries of the world.^[4] Current health care education focuses entirely on cure, care is almost compromised or nonexistent in end-of-life settings. Palliative care is a relatively new subspecialty in many developing countries and is yet to be included in the existing health structure. In 2006, Nigeria took the first step in addressing some of the palliative care needs of her people when she launched the National Consultative Committee on Cancer Control which has palliative care as one of its subunits. Uganda is the only African country that has made palliative care a priority and accessible to her citizenry.^[5]

There have been no studies evaluating the knowledge of palliative care among medical interns, and we intend to fill this gap. Medical interns, who are at the beginning of their medical career, could have an important role to play in the palliative care of patients with terminal disease.

Objectives

The main aim of the study was to ascertain the existing knowledge of palliative care among medical interns

and determine the effect of a structured educational intervention on improvement of their knowledge levels.

SUBJECTS AND METHODS

Setting

The Usmanu Danfodiyo University Teaching Hospital is a tertiary institution situated in the northwestern region of Nigeria. The teaching hospital is based in Sokoto town, Sokoto state. The hospital has 600-bed spaces and provides tertiary and secondary health care services for Sokoto, Kebbi, and Zamfara states. It also runs a residency training program for doctors in the various subspecialists including surgery, obstetrics and gynecology, internal medicine, pediatrics, community medicine, general medical practice, histopathology, hematology, clinical chemistry, and radiology among others. Thus, the medical doctors who constitute the apex of the health team comprise consultants, resident doctors, general duty medical doctors, and house officers (interns) that rotate among the various subspecialties.

Study design

This is a quasi-experimental, interventional study with a one group pre- and post-test design involving medical interns rotating through the various departments of the Usmanu Danfodiyo University Teaching Hospital, Sokoto. The study population was chosen by convenience sampling method. The interns completed a pre- and a post-test assessment following a structured educational intervention for the evaluation of knowledge of palliative care. Knowledge was evaluated by a self-administered, anonymous, and structured questionnaire. The questionnaire consisted of closed- and open-ended questions regarding the basic concepts of palliative care, management of pain, and other symptoms in palliative care, which were in the form of multiple-choice questions. It was fractured into two dimensions, namely (1) personal biodata, knowledge regarding terminal illnesses and palliative care and its application (2) knowledge regarding medical symptoms requiring palliative care and psychosocial needs requiring palliative care in terminally ill patients. The proposal of the study was submitted to the Usmanu Danfodiyo Teaching hospital's Ethics and Research Committee for validation and approval. Upon approval, it was pretested among a few medical professionals in the hospital and certain corrections were made. It was then delivered to the interns at the various departmental clinical meetings, practice sites, and by direct personal contact in the pretest. A total of 49 questionnaires were distributed to the 49 interns rotating in the various departments.

The structured intervention consisted of an invitational educational lecture presented to all the interns involved in the pretest in a lecture hall of the hospital. The lecture covered broadly the definition of terminal illness, disease conditions considered to be terminal and overview of palliative care, end-of-life care, medical, nutritional, and spiritual needs of the patients, social support, special needs in children, and psychosocial symptoms. Three months after the invitational lecture, a postintervention questionnaire was re-administered to the population of 49 medical interns present, out of which 47 were returned.

Knowledge on palliative care was assessed through 12 questions and each has 5 multiple choice options. Each of these questions has been assigned the maximum score of “5” (for all correct answers) and the minimum score of “0” (with no correct answer) depending on the accuracy of the responses of the subjects to each of the questions. The average score for the above-mentioned questions were obtained for each subject. A respondent who got all the 12 questions correctly would have scored 60 marks. The mean score (obtained by adding the score of each of the 12 questions and dividing the sum by 12), which gives the knowledge level score for each subject, was also given the maximum score of 5 and the minimum score of 0. The scores were then graded as follows: 5 = excellent, 4 = very good, 3 = good, 2 = fair, 1 = poor, and 0 = very poor. Thus, the mean scores range from a maximum 5 and a minimum of 0. The relationship between the mean scores (i.e. knowledge as used in the tables below) and other parameters such as sex, marital status, and professional status was then examined. The questionnaires were analyzed via Statistical Software Package for Social Sciences (SPSS) version 17 (IL, Chicago, USA). Frequency analysis was used to generate descriptive statistics for categorical variables. The distribution among variables was tested using Chi-square (χ^2) tests at 95% confidence interval. The participation to study was by informed written consent and confidentiality in the collection of personal data was assured.

Study period

This study was carried out between April and September 2011, a period of 5 months. The 1st month of the study was used for distribution and collection of the pretest questionnaire.

RESULTS

During the period of study, about 49 interns were recruited, among whom were 41 males and 8 females [Table 1].

Their ages range from 21 to 36 years with a mean of 27.7 ± 2.14 years. The mean age of the males was 28.7 years while that of the females was 26.1 years. Most of the interns 37/49 (75.5%) were within the age limit of 26–30 years [Table 1].

In the pretest, 11/49 (22.5%) of the respondents had poor knowledge level of palliative care; however, in the postintervention, only 2/49 (4.1%) of the respondents had poor knowledge [Table 2]. Similarly, good knowledge levels appreciated from 9/49 (18.4%) to 14/49 (28.6%) while very good knowledge increased from 10/49 (20.4%) to 19/49 (38.8%). This effect was statistically significant ($\chi^2 = 11.655$ df = 3, $P = 0.009$).

There is no significant difference in the knowledge levels across the genders [Table 3].

The main source of knowledge was from school lectures 24/49 (49%), health personnel 19/49 (38.8%), and journals and textbooks 2/49 (4%) [Figure 1]. Other sources of knowledge about palliative care include the internet,

Table 1: Sociodemographic characteristics of the interns

	Frequency	Percentage
Age (years)		
21.00-25.0	6	12.24
26.00-30.0	37	75.51
31.00-35.0	3	6.12
≥36.0+	3	6.12
Total	49	100
Marital status		
Single	39	83.67
Married	10	16.32
Total	49	100
Gender		
Male	41	83.67
Female	8	16.32

Table 2: Effect of intervention on the knowledge level of the respondents

	Knowledge				χ^2 , df, P
	Poor	Fair	Good	Very good	
Pretest	11	19	9	10	11.655, 3, 0.009
Posttest	2	12	14	19	

Table 3: Relationship between the gender of the interns and knowledge of palliative care

Gender	Knowledge levels				χ^2 , df, P
	Poor	Fair	Good	Very good	
Male	9	16	8	8	310, 3, 0.958
Female	2	3	1	2	

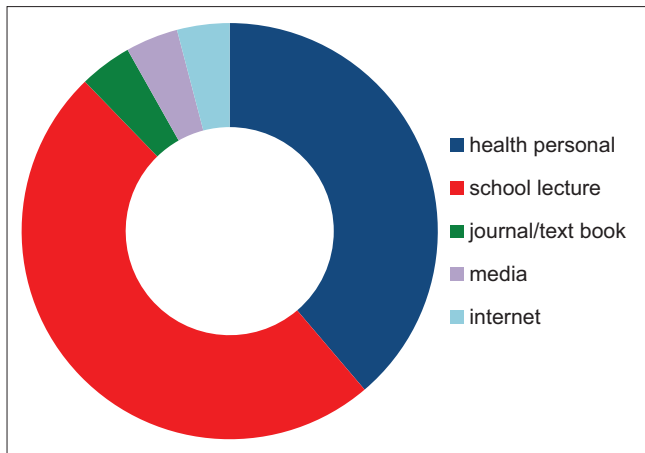


Figure 1: Sources of knowledge on palliative care

electronic and print media, and experience from close relatives who have had palliative care.

DISCUSSION

This study revealed that medical interns have inadequate knowledge about palliative care.

Among those that reported knowledge about palliative care, many held misconceptions regarding the signs and symptoms and the disease conditions that require palliative care. About 57% (28/49) of the respondents clearly understood what constitutes terminal illness and what disease conditions that should be referred to as terminal but had poor knowledge of the constituents of terminal care, with only about 29% (14/49) correctly defining it as active care of the dying. Nearly all were aware that all terminal diagnoses (not just cancer) constitute terminal illness. One component of terminal illness which they do not seem to be fully aware is “old age.”

The sources of knowledge about palliative care were mainly from school lectures 49% (24/49), health personnel 38.8% (19/49), and journals/textbooks 4% (2/49). There exists a positive relationship between the number of sources of information and the knowledge level of the subjects. This underscores the need to include palliative care in the school curriculum both at the under- and post-graduate levels. The residency training is a critical window of opportunity for training about good end-of-life care for dying patients and their relatives.^[6] In Germany, palliative care was recognized as an obligatory part of the undergraduate medical curriculum by law in 2009.^[7] Most of them believed that palliative care involves control of pain and other symptoms at home and medical care in the hospital, but more than 50% of the interns could

not tell the WHO step analgesic ladder correctly. This is poor compared to a study in India, where about 54.5% of postgraduate students knew about WHO three-step analgesic ladder^[8] and the 90.8% observed by Bogam *et al.* among undergraduate students in a rural medical college.^[9]

The interns seem to have some understanding of the range of services available in palliative care as well as the expertise it offers and mainly prefer hospital- and home-based palliative care services 64% (31/49). This is not surprising in the African setting where the extended family system still holds sway. Reasons given by the subjects for interest in palliative care include humanitarian (“part of my duty as a doctor”) and as a component of treatment regimen of the patient. For those who were not willing to participate, their main reasons were “am not good at it, poor program, am emotionally labile” and “it is not financially rewarding.”

The respondents believed that the doctor should discuss death in detail with the relatives of the patients 32/49 (65.5%) and with the terminally ill patient 28/49 (56.3%). They believed that time devoted to prepare a patient for death could have a positive impact on the patient’s life 36/49 (80.5%) and would make the dying patient accept death with serenity (69%). Other studies have reported similar findings among physicians.^[10]

In the pretest, about 18.4% of the house officers were very knowledgeable about palliative care, but after the health education intervention, knowledge level appreciated significantly by about 9% ($P < 0.05$), with about 38.8% of the interns now becoming very knowledgeable. The intervention designed to improve medical interns’ knowledge about palliative care was thus effective significantly. Higher scores would have been recorded if not for the format and duration of the intervention.

Previous studies have shown that end-of-life education programs for residents have demonstrated improved knowledge base of palliative care and improved attitudes towards caring for the dying^[10] while some studies demonstrated no change in physicians’ knowledge and attitudes toward palliative care after an educational intervention.^[11] In a study on the effects of online palliative care training on knowledge, attitude, and satisfaction of primary care physicians in Spain, there was a significant increase of knowledge of 14–20% after an educational intervention.^[12] Another interventional study by Valsangkar *et al.* among interns revealed that there is significant increase in level of knowledge regarding palliative care after a training workshop.^[13] Knowledge and attitude precede the learning of new skills.

The WHO opined that palliative care has to be compulsory in courses leading to a basic health professional qualification.^[14] Education has been recognized as the only way to improve the provision of palliative care to patients and families. An evaluation study by Pohl *et al.* found that the implementation of compulsory palliative care education at the Medical University of Vienna, Austria, resulted in a significant increase of theoretical knowledge about palliative care aspects in medical students.^[15] How does one ensure that the physician in training imbibes cultural and humanitarian values and does not end up as a glorified technician?

CONCLUSION

The results of this study suggest that the knowledge of interns about palliative care can be improved through an educational intervention. The clinician must implement this knowledge, attitudes, and skills on a permanent basis for the desired outcome.

Recommendation

Further research needs to be done, especially in the subspecialty areas to involve the consultants. Palliative care should be included in curricula for healthcare professionals, and in-service education programs should be established.

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Conflicts of interest

There are no conflicts of interest.

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