Instruction in the techniques and concept of supportive care in oncology

Abstract Cancer education merits a coordinated, vertical curriculum and an integrated planning strategy. It has become clear that it is as important to teach the techniques of supportive care in oncology as it is to teach the concepts of cancer biology, pathology, epidemiology, prevention, detection and aggressive treatments. Our aim is to determine whether the medical school and nursing school curricula give the students an introduction to the concepts of supportive care of the cancer patient. The spectrum of such supportive care encompasses a wide range of issues working towards a common goal of providing overall comfort with an emphasis on quality of life, and runs parallel with specific therapeutic strategies and associated problems. Do the graduate medical student and nursing student understand that cancer management is multidisciplinary and team-based? That the approach to pain management not only includes the administration of pain medications, but should also evaluate pain assessment and anesthetic, neurosurgical and behavioral approaches? That nausea and vomiting associated with chemotherapy can be ameliorated to a certain extent? That infections are common but algorithms exist for prevention and therapy? That certain metabolic complications are unique to cancer patients? That transfusions are vital procedures in patients with neoplasms undergoing aggressive treatments but are associated with certain risks and complications? That there are serious psychosocial, ethical and legal needs to be considered? To address these issues, the American Cancer Society Professors of Clinical Oncology, the American Cancer Society Professors of Oncology Nursing and the United States Cancer Center Directors were surveyed. In general, professors perceived that education in cancer and its supportive care was well done at their schools of medicine and nursing; however, students' perceptions of their education differed from that of the professors. The paper includes suggestions to curriculum directors of medical and nursing schools for constructive changes with regard to instruction in the techniques of supportive care in oncology.

Key words Instruction in supportive care · Cancer care education
Introduction

Cancer education merits a co-ordinated, vertical curriculum and an integrated planning strategy. It has become clear that it is as important to teach the techniques of supportive care in oncology as it is to teach the concepts of cancer biology, pathology, epidemiology, prevention, detection and aggressive treatments. Supportive care in cancer patients is an integral part of their overall management and begins at the time of their initial diagnosis. Significant progress in the arena of cancer therapies has increased awareness for supportive care issues involved in the overall management of a patient with cancer. It is not only the "terminal" patient who is in need of such care because quality of life and comfort are major issues, but also the "survivor", who is faced with both short- and long-term effects of the treatment of cancer, including psychosocial aspects. Supportive care in cancer patients includes a wide spectrum of therapies and services. The list, though far from complete, includes the approach to cancer pain management, prevention and therapy for infection in cancer patients, the approach to metabolic complications of cancer, psychosocial support and quality-of-life issues, the approach to nutrition and cancer cachexia, transfusion needs and practices in cancer patients, and the availability of specialized services (e.g., hospice care, home health care) and organizational support services (e.g., American Cancer Society). Though there is a continued need to increase co-ordination of cancer education activities in both medical and nursing schools, our aim was to determine, the basis of the perceptions of professors and students, whether the medical school and nursing school curricula provided the students with an introduction to the concepts of supportive care of the cancer patient. The survey of all completed questionnaires of 6 professors who were recently graduated from the University of Maryland. The students were surveyed to see whether their perceptions of instruction in cancer supportive care coincided with those of the cancer center directors and nursing faculty.

Survey methods

Population surveyed

The survey was designed to assemble information on how the current status of instruction in the techniques and concept of supportive care in oncology was perceived in schools of medicine and nursing in the United States. The survey was sent to directors of cancer centers, American Cancer Society Professors of Oncology, faculty of Masters programs in oncology nursing and American Cancer Society Professors of Oncology Nursing in the United States. The groups to be surveyed were chosen because of their familiarity with the cancer education programs of their respective schools or institutions. In all, 120 survey questionnaires were mailed: 43 (61%) of 74 cancer center directors (including American Cancer Society Professors of Oncology) and 31 (67%) of 46 faculty of nursing schools or American Cancer Society Professors of Oncology Nursing returned completed questionnaires within the time specified. The completed questionnaires of 6 professors were returned too late to be included in the analysis. The same questionnaire was also completed by 26 medical students and 34 nursing students who were either in their final year of school or had recently graduated from the University of Maryland. The students were surveyed to see whether their perceptions of instruction in cancer supportive care coincided with those of the cancer center directors and nursing faculty.

Survey instrument – description and development

The survey questionnaire involved in this study was designed to determine whether the medical school and nursing school curricula provided the students with an introduction to the concepts of supportive care of the cancer patient. The survey questionnaire, with a four-point opinion scale, addressed the following:

1. Does the graduate medical student (nursing student) understand that cancer management is multidisciplinary and team-based?
2. That knowledge and appreciation of supportive care measures is just as important as an understanding of the essentials of surgical, radiotherapeutic and chemotherapeutic intervention for cancer?
3. That support services are available to cancer patients through the American Cancer Society, hospices and other community organizations?
4. That the approach to pain management includes not only the administration of pain medications, but also evaluation of the degree of pain and utilization of anesthetic, neurosurgical and behavioral approaches?
5. That nausea and vomiting associated with chemotherapy can be ameliorated to some extent?
6. That infections are common but algorithms exist for prevention and therapy?
7. That certain metabolic complications are unique to cancer patients?
8. That transfusions are vital procedures in cancer patients who are undergoing aggressive treatments but that they are associated with certain risks and complications?
9. That there are serious psychosocial, ethical and legal needs to be considered?
10. That nausea and vomiting associated with chemotherapy can be ameliorated to some extent?

A description analysis consisting of the number and percentage of responses for each response category of each question was performed and reported as frequencies and percentages (Tables 1, 2). Comparisons were then made among variables of interest by means of a series of cross-tabulations. The comparisons of interest included:

- Cancer center directors (including American Cancer Society Professors of Oncology) and faculty of masters programs in oncology nursing (including American Cancer Society Professors of Oncology Nursing)
- Cancer center directors (including American Cancer Society Professors of Oncology) nationwide and medical students from the University of Maryland School of Medicine
- Faculty of Masters programs in oncology nursing nationwide and nursing students from the University of Maryland School of Nursing

Comparisons were made by analyzing 2×2 contingency tables and using χ²/Fisher's exact test at α=0.05, noting that the study was not designed to offer randomized comparisons. Since the number of respondents was not large enough "strongly agree"