A review of a multiprofessional cancer course

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The report of the Expert Advisory Group on Cancer (the Calman–Hine Report) (Department of Health 1995) set out a clear framework of services for people with cancer in England and Wales. Subsequent developments, such as *The NHS Cancer Plan* (Department of Health 2000a), have built on this framework. What emerges clearly from these documents is the importance of a skilled and knowledgeable workforce in delivering high-quality cancer services. Although appropriate educational courses exist for some professional groups, such as nurses, cancer care has traditionally received scant attention in curricula for the allied health professionals (AHPs), either before or after qualification. This article describes the development and successful implementation of a course in cancer care aimed specifically at AHPs. Using Skilbeck's (1984) curriculum model as a framework, the development and design of the course, and aspects of its delivery, are examined. Evaluation of the first 2 years of the course reveals that it is popular and perceived as interesting and relevant to AHPs involved with patients with cancer in general and specialist settings.

Keywords: allied health professionals, multiprofessional, education, curriculum development.

INTRODUCTION

The publication of the report of the UK government's Expert Advisory Group on Cancer (EAGC – the Calman–Hine Report) (Department of Health 1995) provided a framework for the development of services for people with cancer in England and Wales. It is implicit within the report that healthcare professionals will require additional education/training in order to meet the needs of people with cancer and their relatives, and the demands of providing this care. It is also clear from *The NHS Cancer Plan* (Department of Health 2000a) that education will continue to be a key element in improving the quality of cancer services. This article describes the development of such a training programme for allied health professionals (AHPs). The development itself provides a

good example of the multiprofessional working which the Department of Health (1995, 2000a,b) sees as central to the development of comprehensive cancer care. The article examines how members of various professions collaborated on the design of a programme which would be aimed at qualified practitioners, and which would enable professionals to explore together the nature of cancer, its effects, treatments and side-effects and so deepen understanding of each other's role. Following a brief discussion of Skilbeck's (1984) curriculum planning model, this model will be used as a framework to examine the development, implementation and evaluation of the programme before drawing tentative conclusions based on this experience.

CURRICULUM AND CURRICULUM PLANNING MODELS

Quinn (2000) notes that, although curriculum theory is now an established field of study in education, there is no

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precise or agreed definition of what a curriculum actually is. It is clearly necessary therefore for those developing curriculum theories, and those developing curricula, to specify their definition of curriculum. For the purposes of the development of this course, Skilbeck's (1984: 21) definition of curriculum as 'the learning experiences of students, in so far as they are expressed in educational goals and objectives, plans and designs for learning and the implementation of these plans and designs in school environments' was used. The variety of definitions of curriculum is mirrored in the diversity of curriculum models, analyses of which are beyond the scope of this article. Beattie (1987) and Skilbeck (1984) provide in-depth discussions of various curriculum models, with choice of model likely to reflect the definition of curriculum and the educational philosophy of those planning the curriculum (Pendleton 1991).

The curriculum model adopted by the planning team was that advanced by Skilbeck (1984) and Lawton (1983, 1984), and described by Beattie (1987) as 'curriculum as a map or chart of the culture'. Glen (1991) notes that this curriculum planning model emphasizes the context within which a curriculum exists, and can incorporate process and objectives approaches. This flexibility of the model and the fact that it has also been used with cancer nursing education (e.g. International Society of Nurses in Cancer Care 1991) were important influences in the planning team's choices.

THE SITUATIONAL ANALYSIS MODEL APPLIED

Skilbeck (1984) suggests a model incorporating five components:

- analyse the situation;
- define the objectives;
- design the teaching-learning programme;
- interpret and implement the programme;
- assess and evaluate.

It should be noted that Skilbeck did not see this as a step-by-step guide to decision-making, specifically warning against 'imposing the logic of projected forward motion and anticipation on decisions that may oscillate rather than progress' (Skilbeck 1984: 231). Components may appear in any order, and may need to be revised several times during the development process. The components described above will be used as a framework to discuss the development of the course.

In order to ensure that it would be appropriate to the needs of the student group, a multiprofessional team was formed to design the course. The existing curriculum for the Oncology Nursing course (ENB 237) at Clatterbridge Centre for Oncology and the core curriculum for Oncology Nursing (International Society of Nurses in Cancer Care 1991) were used to initiate discussion and clarify thinking.

It became clear during the design of the programme that various professional groups were involved in the delivery of cancer care, though the extent of their roles was not always appreciated by members of other professions. To this extent, learning was occurring during the design process itself, and the programme arrived at reflects the discussions which took place.

Analyse the situation

The first component involves a systematic analysis of the factors, both within the institution and outside, which influence the development of a curriculum. In this way, the context in which the curriculum is being developed is addressed, as is the 'hidden curriculum'. Details of the situational analysis are contained in Table 1.

One of the strengths of this model is that it can incorporate the needs of service managers. These needs are changing, initially driven by the Calman-Hine Report (Department of Health 1995), and more recently given added impetus by such documents as Pathways in Cancer Care (NHS Executive North-West 1998), Improving the Quality of Cancer Services (Department of Health 2000b) and The NHS Cancer Plan (Department of Health 2000a). This, and the subsequent involvement of AHPs in the development of site-specific care pathways for patients with cancer, served to emphasize an already perceived lack of specialist input in oncology to AHPs' undergraduate curricula (apart from Therapy Radiography, whose focus is specifically oncology). This is not unique to AHPs however; although there are established specialist courses for nurses, only small numbers of practitioners have taken such courses (Ward 1997). Alison Ferguson, of the Centre for the Development of Nursing Policy and Practice, University of Leeds, has recommended multiprofessional, professionally accredited courses at various academic levels (Millar 1998). It seems unlikely that the Calman-Hine recommendations will be achievable without adequate numbers of appropriately qualified staff.

As part of the examination of the external influences, a postal survey was undertaken of AHPs' departments in the North-West Region, the aim being to gauge the level

Table 1. Situational analysis (Skilbeck 1984)

External	Internal
Perceived lack of specialist input in oncology to AHPs' undergraduate curricula	Well-established cancer nursing courses at Clatterbridge Centre for Oncology (CCO) and Liverpool University (LU)
Calman–Hine Report	Established and developing rehabilitation team within CCO
Needs of service managers	Established department within School of Health Sciences
Development of core pathway \rightarrow specialist input	Involvement of CCO and Clatterbridge General Hospital AHPs in care pathway development
Many AHPs with an interest in oncology may be working in small departments	On-site tutor, library and educational facilities – release time at a premium
NW Region has indicated oncology education will receive priority funding	Range of expertise of staff in CCO and LU
Importance attached to continuing professional development (CPD) among professions	Modules in multidisciplinary BSc already established for AHPs, but uptake relatively poor. Perceived need to encourage uptake

of support for an oncology course for AHPs, the preferred mode of organization and what support (financial and time) might be afforded potential students. Accordingly, 113 questionnaires were distributed, mainly to managers of dietetic, physiotherapy and occupational therapy services, with 29 (26%) being returned. This sample was opportunistic in nature, and the response rate disappointing, so could not be described as representative. However, replies received did indicate support for the development of a course, with 18 managers (62%) expressing a preference for part-time study for their staff. This may in part reflect the small numbers of staff in some of these departments, where blocks of study leave may compromise services. Most managers indicated they would provide study leave, and many also indicated they would provide funding. However, an additional external influence was the knowledge that oncology education was to receive priority funding by the regional health authority.

The fact that there were established cancer nursing courses at Clatterbridge Centre for Oncology and Liverpool University was useful in that these were used as a starting point in formulating aims, objectives and course content. The fact that these various members of the planning team were intimately involved in the development of care pathways in the Region also informed these discussions. Liverpool University had been canvassed at an early stage about validating the course, and had expressed an interest in incorporating it within its BSc (Hons) Professional Health Studies programme. This is a multiprofessional degree programme, but the University was concerned that the programme was overwhelmingly accessed by nurses. This clearly provided an opportunity to recruit AHPs into this degree programme, but to ensure

that the oncology course would not be swamped with nurses it was decided to restrict access to members of AHPs only.

Finally, appropriate facilities and expertise (e.g. tutor, library and accommodation) already existed at Clatter-bridge Centre for Oncology. It should also be noted that the Department of Health (1995) views education as an important part of the role of cancer centres, a position reinforced by *The NHS Cancer Plan* (Department of Health 2000a).

Define the objectives

The situational analysis leads inevitably to discussion of course objectives. Although objectives in curricula have been criticized by some educationalists (e.g. Stenhouse 1975), Skilbeck (1984) insists that they are valuable, but that they should focus on longer-term understanding and competence rather than on isolated pieces of behaviour to be performed in tests. The broad aims of the course are to explore the general principles of oncology and their implications for the role of the multiprofessional team, and to apply in-depth knowledge of cancer treatments and their effects in the context of professional roles. The objectives are that students will gain knowledge of and demonstrate understanding of:

- the occurrence, development and manifestations of malignant disease;
- the management of effects of malignant disease and treatment:
- the roles of various cancer treatment modalities and treatment approaches.

Students will demonstrate understanding of:

- the actions of radiotherapy and role of various radiation modalities in cancer treatment;
- the actions of cytotoxic agents and their role in cancer treatment;
- safety measures relating to treatment.

Students will critically examine:

- the development of cancer services and the roles of professions in this development;
- the implications of government reports, policies and legislation for cancer care and for the professions;
- the role of the multiprofessional team;
- the use of and design of care pathways;
- the concepts of bereavement, coping and staff support;
- the individual professions' role in cancer care.

Teaching staff aim to ensure that these aims are met within the context of a holistic approach to care, and with emphasis on the importance of basing practice on current research. The objectives are stated in such a way that they are applicable to all professional groups.

Design the teaching-learning programme

During discussion of the objectives for the course, and particularly during discussion of programme content, it quickly became apparent that there were two groups of AHPs who might be looking for education in cancer: those working in specialist cancer centres, who may already have a broad working knowledge of oncology; and those in more general settings, whose knowledge may be more limited. Accordingly, it was decided by the group that two modules should be offered – one on the general principles of oncology, which will not assume prior knowledge, and one on cancer treatments and their effects, which will assume prior knowledge through either experience in a cancer centre or completion of the first module. It is intended that these modules would be run as 12 3-h sessions, one session per week.

The first module is thus designed to give a broad overview of oncology and cancer services, with content structured around four broad themes: the natural history of cancer; cancer services; cancer treatment options and rationale for choices; and managing the effects of disease and treatments. A variety of teaching strategies are used, with students encouraged to relate theory to patients' experiences, and to critically examine their professional role in delivery of care. Students are asked to consider the

implications for the various professions of developments in treatment and government policy.

The second module focuses specifically on the principal treatment methods, their effects, and strategies for patient care. The scientific basis of the use of radiotherapy and chemotherapy, and the management of their sideeffects, are examined. This knowledge is then applied in the context of the management of cancers of specific sites, chosen because of their high incidence or because of the opportunities that their management presents for exploration of multiprofessional approaches to care. A variety of teaching approaches are used, with discussion and group work used to facilitate understanding of the roles of the different professions, and students encouraged to reflect upon and use their clinical experiences as sources of learning. Such approaches also assist in the sharing of good practice, as recommended, for example, by Ward (1997).

Interpret and implement

The interpretation and implementation component of Skilbeck's model involves anticipating potential problems and suggesting ways in which they may be addressed. Validation of the two modules was achieved in 1997 within the University of Liverpool's BSc (Hons) Professional Health Studies modular framework, although, prior to their delivery, some minor revisions were made in response to perceived demand. Firstly, the modules were transferred from the BSc framework to the Continuing Professional Development route. As all AHP undergraduate courses are now delivered at level 3, it was acknowledged that many AHPs would have attained degrees related to their profession. It was recognized therefore that most AHPs would prefer to undertake the modules as part of their continuing professional development rather than as part of a degree framework. For AHPs who have not completed a degree programme opportunities exist to transfer credits to the BSc (Hons) Professional Health Studies programme.

Secondly, analysis of the responses from the questionnaire indicated that the part time option was preferred. A module would normally be delivered over 12 half-days; however, enquiries regarding the course indicated that students would be prepared to travel long distances to attend. It was for this reason that the course would be delivered over six full days to facilitate travel and study leave arrangements.

The third revision to the programme related to numbers of students per cohort. Originally, the maximum number of students per module was set at 10. The programme leader and course planning team agreed to keep cohorts small initially to ensure that the course could be resourced, delivered effectively and then evaluated. Although the course was not widely advertised, there was a huge demand for places and the maximum number per module was increased to 12. A news bulletin was forwarded to the professional journals and details of the course included in the Clatterbridge Centre for Oncology professional development and education diary, but as the demand for the course was high, it seemed unreasonable to advertise further. The numbers increased from 12 to 20 in the second cohort.

Selection of students was based on a prerequisite diploma, satisfactory completion of an application form, and a cohort profile, which represented a range of professional groups. Wood & Ward (2000), in their education review of cancer services, suggested that the term 'profession allied to medicine' can refer to a range of health-care professions (Table 2).

The first Oncology for AHPs course commenced in September 1998 with a cohort of 12 students. The cohort represented a range of professional groups including dietitians, occupational therapists, physiotherapists and diagnostic radiographers from a variety of settings including hospitals, hospices and the community, and this variation has continued to date (Table 3).

The uniqueness of the course attracted AHPs from a wide geographical range, from Southampton and London in the south to Barrow-in-Furness and Preston in the north (Table 4).

Each module was delivered over six separate days throughout a semester. Lectures were delivered by a variety of experts, including doctors, nurses, therapy and diagnostic radiographers, and educationalists. Speakers were asked to focus their lectures towards multiprofessional care, and time was planned within the timetable for discussion and seminar presentations.

The second cohort commenced the course in October 1999. This cohort consisted of 20 students on module 1

(eight of whom were funded by the North-West Regional Consortia for module 1 only), and 13 students on module 2. The characteristics of the group differed slightly from the first cohort (Table 3), but students also worked in a range of clinical settings including hospital, community and hospice. The geographical range was less marked, with most based in the North-West Region, but others travelling from Shrewsbury, Northwich and West Wales (Table 4).

The third cohort commenced the course in October 2000, and represented a range of professions (Table 3) from a variety of geographical locations (Table 4). Of the 10 types of AHPs identified by Wood & Ward (2000), six are represented within the three cohort profiles, which suggests that the course is addressing the needs of a range of professional groups who commonly work with people with cancer. A number of reports highlight the importance of the contributions of AHPs to cancer care and the role of education for each professional group (Wood & Ward 2000).

Assess and evaluate

Evaluation is a key component of any educational programme. Dean (2000: 225) suggests that the purpose of evaluation is 'to learn from past educational events in the life of a student, teacher, purchaser or a course and to

Table 2. Allied health professionals (Wood & Ward 2000)

Chaplains
Chiropodists/podiatrists
Clinical psychologists
Dietitians
Occupational therapists
Pharmacists
Physiotherapists
Radiographers
Social workers

Speech and language therapists

Table 3. Professions represented, by module

Professional group	September 1998 cohort		October 1999 cohort		October 2000 cohort	
	Module 1	Module 2	Module 1	Module 2	Module 1	Module 2
Dietitian	1	2	3	0	2	2
Occupational therapist	2	1	8	6	7	7
Physiotherapist	7	7	7	5	5	6
Diagnostic radiographer	2	2	0	0	2	2
Pharmacist	0	0	2	2	0	0
Speech and language therapist	0	0	0	0	2	2
Total	12	12	20	13	18	19

adapt them appropriately to reflect future needs'. A range of curriculum evaluation methods are available, such as those described by Sconce & Howard (1994), though both a qualitative and quantitative approach was chosen to evaluate the Oncology for AHPs programme. Similarities are apparent between nurse education and AHP education, including the professional and caring dimensions of the students' roles and the emphasis on the role of education in improving practice. Similarly, literature related to evaluation in nurse education is applicable to evaluation of AHP education. Pateman & Jinks (1999), and Sconce & Howard (1994), for example, highlight the debate regarding the most appropriate strategies for curriculum evaluation but condone both quantitative and qualitative approaches.

Pateman & Jinks (1999) suggest that the quantitative approach is relatively cheap, simple and useful as an audit tool but that qualitative approaches can provide insights that can be used for curriculum development. Skilbeck's model emphasizes the importance of context in curriculum development, which is reflected in the Professional Process and Product model of evaluation described by Sconce & Howard (1994). The approach to evaluating the Oncology for AHPs course incorporated both quantitative and qualitative approaches and an analysis of the influences of context in the development of the course. All taught sessions within the course were evaluated in addition to end of module evaluations. Areas evaluated included the clinical education facilities, theoretical content, speakers, teaching and learning strategies, course leader support and library facilities.

For module 1 of the September 1998 cohort, the scale used ranged from 1 to 6, with 1 indicating the worst possible and 6 equating to excellence (Figure 1). The scale was changed from 1 to 10 from September 1998 module 2 (Figure 2) onwards in order to standardize evaluations across all programmes delivered through Clinical Education. Evaluations of the October 1999 cohort can be seen in Figures 3 and 4.

Each cohort evaluated both modules well, as indicated

Table 4. Geographical range of students

0 1					
September 1998	October 1999	October 2000			
Wirral	Northwich	Liverpool			
Manchester	West Wales	Manchester			
Liverpool	Liverpool	North Wales			
Barrow in Furness	Halton	Shrewsbury			
London	Warrington	Telford			
Southampton	Southport	Warrington			
Crewe	Shrewsbury	Wirral			
Shrewsbury	Wirral				
Preston					

in Figures 1–4, though it is of note that accommodation within the Clinical Education Department underwent substantial redevelopment in order to maximize teaching space and improve facilities. This was reflected in evaluations between each cohort. The September 1998 cohort suggested that areas for development could include improved classroom facilities, more discussion in taught

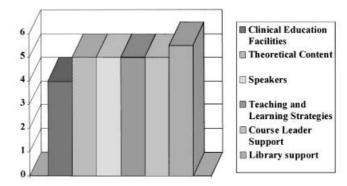


Figure 1. Graph to show the overall evaluation of the AHPs course – module 1, September 1998.

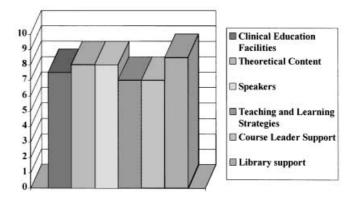


Figure 2. Graph to show the overall evaluation of the AHPs course – module 2, September 1998.

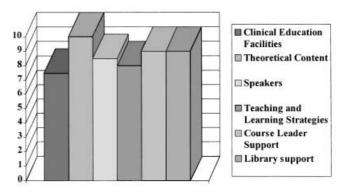


Figure 3. Graph to show the overall evaluation of the AHPs course – module 1, September 1999.

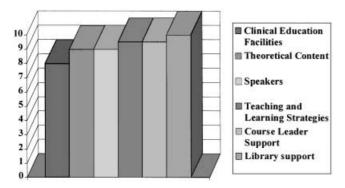


Figure 4. Graph to show the overall evaluation of the AHPs course – module 2, September 1999.

sessions, some study days on consecutive days to ease travel arrangements for students living at a distance, and a formal session about assignment preparation. In response to these suggestions, the October 1999 programme included two blocks of consecutive days, increased number of days from 6 to 7 per module, a programmed session on assignment writing, improved classroom facilities and a greater emphasis on discussion within taught time.

However, students from both cohorts commented very favourably on the modules, finding the content interesting and relevant, delivered by excellent speakers. Qualitative data generated valuable insight into student perceptions. Students indicated that the course provided an invaluable opportunity to discuss issues within the multiprofessional group, that it had increased their confidence and that it had enabled them to reflect on practice. They also commented that they had not only benefited from the course but had also found it thoroughly enjoyable. Analysis of the quantitative evaluations indicates increased satisfaction between the September 1998 and October 1999 cohorts following developments to the programme. Evaluations will be ongoing and contribute to future course planning and developments.

Although evaluations may be considered to be time-consuming and analysis of data lengthy (Parahoo 1991), evaluations from the Oncology for AHPs course are relatively simple to undertake. An existing information technology resource within Clatterbridge Centre for Oncology for collating quantitative data is available and student numbers have been relatively small (12–20). Evaluations of individual sessions are forwarded to speakers and offer constructive feedback on the value of both content and presentation. The programme leader uses this information to assist in the planning of future sessions and to maintain close links with clinical and academic colleagues.

Evaluations of each module enable comparisons to be made between cohorts and offer rich insight into the student experience. Evaluation of the AHPs course therefore incorporated Dean's (2000) suggestion that educational events should be adapted in response to student, teacher and purchaser evaluation.

An analysis of the wider context reveals key influencing factors in course development. Cancer care currently enjoys a high national profile which has gained momentum since cancer was initially targeted in *Health of the Nation* (Department of Health 1992). Following the publication of the Calman–Hine Report (Department of Health 1995), cancer care has become high on the national agenda, with a recognition that cancer education and training for healthcare professionals is a necessary requirement in the provision of cancer care. More recently, two Department of Health reports, *The NHS Cancer Plan* (Department of Health 2000a) and *Improving the Quality of Cancer Services* (Department of Health 2000b), specify how improvements in cancer care can be made.

Educationalists, clinicians, trusts and service managers were involved in both the planning and continued development of the course through meetings and discussions. Parahoo (1991) suggests that the value of evaluation in improving the curriculum may be questioned if politics and economics take a higher profile than humanitarian considerations. Politics and economics have positively influenced the development of the Oncology for AHPs course, however, through the high profile of cancer care, availability of funding for places through the educational consortia and supporting trusts, and the Calman-Hine (Department of Health 1995) vision of the cancer centre as a key contributor to cancer education. Continued interest has contributed not only to the viability of the course, but to its continued development through improved resources (classroom space, books, additional subscriptions to journals) and increased staffing. The increased resource requirements plus evaluations have been used, as Allen & Jolley in Odro (1992) suggest, to justify the need for more resources.

CONCLUSION

This article has described the development of oncology modules for allied health professionals, using Skilbeck's Situational Analysis Model. This development was firmly situated in the context of government initiatives to improve the quality of cancer care in England and Wales. The two modules were developed from a multiprofessional perspective, and validation achieved through

collaboration between academic and practice-based professionals.

Since validation of the course, demand for places has been high and the numbers accepted per intake have been reviewed in light of this demand. Twenty students were offered places in October 1999 compared with 12 in September 1998. There is an obvious and identified demand for oncology education for AHPs. Wood & Ward (2000), EAGC (Department of Health 1995), *Improving the Quality of Cancer Services* (Department of Health 2000b) and *The NHS Cancer Plan* (Department of Health 2000a) all highlight both the need for effective multiprofessional collaboration in cancer care and continued oncology education for AHPs who work with patients with cancer.

The course attempts to address the three concerns highlighted by Wood & Ward (2000):

- Cancer qualifications set out by Department of Health (1995) for nurses and AHPs have not been met.
- Education must be accessible and flexible if it is to be beneficial.
- Research shows a lack of understanding of roles and communication deficits within the multiprofessional team.

Firstly, the Oncology for AHPs course is contributing to multiprofessional oncology education for a range of professional groups. It offers academic credit with a focus on implementation of learned principles in practice.

Secondly, the course has been adapted in response to demand (e.g. full days rather than half-days and early opening and late closing of the library on days the course is running). An additional solution to the high demand for places is the development of a distance learning programme based on the two taught modules. The Educational Consortium has funded the development of module 1 of this programme, which will be completed by the end of 2001.

Thirdly, student evaluations highlight the value of multiprofessional education. Students have commented on the benefits of learning about each other's roles and the invaluable opportunities to discuss issues from a multiprofessional perspective.

The aims of education therefore contribute to the objectives of *Improving the Quality of Cancer Services* (Department of Health 2000b) and *The NHS Cancer Plan* (Department of Health 2000a), which support the provision of quality care through specialist multidisciplinary teams. There appears to be a need and a demand for post-qualification courses in cancer care for AHPs, and evalu-

ations suggest that this course has facilitated, and will continue to facilitate, a better understanding of professional roles and will ultimately contribute to the improvement of patient care.

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