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Clinical education and training: Using the nominal group technique in research with radiographers to identify factors affecting quality and capacity

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Abstract There are a number of group-based research techniques available to determine the views or perceptions of individuals in relation to specific topics. This paper reports on one method, the nominal group technique (NGT) which was used to collect the views of important stakeholders on the factors affecting the quality of, and capacity to provide clinical education and training in diagnostic imaging and radiotherapy and oncology departments in the UK. Inclusion criteria were devised to recruit learners, educators, practitioners and service managers to the nominal groups. Eight regional groups comprising a total of 92 individuals were enrolled; the numbers in each group varied between 9 and 13. A total of 131 items (factors) were generated across the groups (mean = 16.4). Each group was then asked to select the top three factors from their original list. Consensus on the important factors amongst groups found that all eight groups agreed on one item: staff attitude, motivation and commitment to learners. The 131 items were organised into themes using content analysis. Five main categories and a number of subcategories emerged. The study concluded that the NGT provided data which were congruent with the issues faced by practitioners and learners in their daily work; this was of vital importance if the findings are to be regarded with credibility. Further advantages and limitations of the method are discussed, however it is argued that the NGT is a useful technique to gather relevant opinion; to select priorities and to reach consensus on a wide range of issues.

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Introduction

There is a wide range of evidence to support the view that high quality clinical education and training is key to the provision of safe and effective practice in diagnostic and therapeutic radiography.[1–3] The new political climate and developments within the profession have led to an increased focus on the manner in which clinical skills are learnt and the learning opportunities that are present within the clinical setting. It is clear that there is convergence in the professional and political perspective: that the workplace should be considered to be an important learning environment.[4–8]

However, a concerted effort to recruit more allied health professionals coupled with new ways of working and extended roles within radiography have resulted in an increase in the range and number of learners in the workplace. Whilst staff increases have been encountered in some areas, there has also been a surge in the number of recorded vacancies: testimony to the assertion that ''demand has risen faster than supply''.[9] It is evident that the potential lack of support and supervision of students by experienced practitioners has a great influence on the quality of learning and the capacity of departments to support learner groups.[2,10]

The preceding influences are being sustained within the context of an unprecedented period of change, growth and development as a direct consequence of Government 10-year plans for the NHS (2000–2010). Together with an expansion of services and the workforce, new ways of working are being recommended that emphasise the centrality of the patient in the provision of health care.[5]

It was against this background that this research was commissioned by the College of Radiographers with the support of the Department of Health (England). Its main purpose was to identify the factors affecting the quality of, and capacity to provide clinical education in diagnostic imaging and radiotherapy and oncology departments in the UK.

This paper reports on one strand of the study: the qualitative research method which was used to collect the views of stakeholders involved in clinical education and training.

Aims

The overall purpose of the research was to describe the factors which influence the quality and capacity of placement experience in radiography from the perspective of educators in clinical and academic practice and from a range of learners.

The aims developed for this aspect of the study were:

1. (a) Identify the factors which have an impact on the quality of clinical education and training.
   (b) Identify the factors which determine the capacity of diagnostic imaging and radiotherapy and oncology departments to support clinical education and training.
2. Recommend factors which should be included in evaluating clinical placement quality and capacity.

Methodology background

There are a number of ''group-based'' research techniques available to determine the views or perceptions of individuals in relation to specific topics. The purpose of such work is to increase the depth and scope of discussion, ensure wide coverage of ideas, involve group members in selecting priorities and to seek agreement or consensus on the topic in question.[11]

For example, focus group methodology is defined as an open-ended group discussion that explores a specific set of issues on a predefined and limited topic.[12] Advantages claimed for focus groups include the assertion that it is a highly efficient technique for qualitative data collection since the amount and range of data are increased by collecting from a number of people at the same time. Moreover the method is relatively inexpensive and flexible and can be set up quickly. However, facilitating the focus group requires considerable expertise, because the manager of the group must avoid interpreting or leading the views of the participants. A further disadvantage is the possible bias caused by domination of the group by one or two individuals.[13]

Other organised group processes can be highly structured in both content and style and involve no face-to-face discussion. For example, the Delphi technique, which has been used widely in health research, uses electronic or postal questionnaires to collect expert opinion on a particular issue to achieve consensus.[3,14,15] By eliminating personal contact, the Delphi technique avoids most of the disadvantages of focus group methodology. However, several rounds of questionnaires are required to reach consensus and therefore the Delphi is extremely time consuming. Evidence also shows that over time, participants lose interest (questionnaire fatigue) and the response rate for subsequent rounds is often significantly reduced resulting in an inability to generalise the findings.[16,24]