Conclusions

This consensus study highlights areas of ethical, medicolegal, and emergency medicine as being those most desirable or essential in a sports medicine specialist. A number of these statements could equally apply to any medical practitioner. We have only identified the top 18 qualities. It is interesting to note that, of the 311 other qualities identified, the lowest scores of 2.88 and 3 were received by the statements "has a formal attachment to a team or sport" and "experience as a player at different levels" respectively. Furthermore no quality was rated 5 by all respondents.

This is a small geographically isolated study but it uses a recognised method to seek consensus among those who have shown their commitment by undertaking a higher specialist qualification. A further, United Kingdom wide study is in preparation.

We would like to acknowledge the invaluable help received from the participants in this pilot study. They are M Webb, D McCreary, P McCormack, D Irwin, T Forde, B Fair, M Cunningham, M Cullen, I Corry, E Abernethy, M Hampton.

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Sport and exercise medicine in undergraduate medical schools in the United Kingdom and Ireland

Introduction

The formation of the Intercollegiate Academic Board in Sport and Exercise Medicine represents the first step towards recognition of sport and exercise medicine as an individual specialty, with its own higher specialist training programmes, leading to the establishment of sport and exercise medicine departments within the NHS. However, sports medicine is not an exclusively postgraduate activity and there is increasing interest among medical students. The opportunity for students to direct their own learning goals is in keeping with changes to undergraduate medical education suggested by the General Medical Council (GMC) in their paper entitled *Tomorrows' doctors*.[1] One of their recommendations was to supplement the core curriculum with "special study modules", offering students the opportunity to study, in depth, areas of particular interest. This "new" undergraduate curriculum was introduced into medical schools in the academic year 1997/1998.

Our aim was to study the level of interest in the teaching of sport and exercise medicine in undergraduate medical schools, with specific objectives to record the proportion of schools with formal and informal teaching of sport and exercise medicine, the extent of teaching, and in what context it was taught.

Method

This was a questionnaire study of medical schools in the United Kingdom and Ireland. The first draft of the questionnaire was drawn up by the authors. It was appraised for content and face validity by six members of the Northern Ireland Sports Medicine Interest Group, who had attended five different medical schools and each of whom was involved in sports medicine teaching at some level. The questionnaire was sent to the deans of all medical schools throughout the United Kingdom and Ireland, with a postal reminder after three weeks and a phone call to the secretary to the dean after a further three weeks. Respondents were asked to identify in which year sport and exercise medicine was formally taught as a lecture, as a study module, or as a clinical attachment and we used the following definitions to promote consistency. A study module was defined as: a student undertakes a period of study into an area normally outside the medical curriculum. It may be research based, an assignment or in depth clinical study. A clinical attachment is where a student is based at a department, alone or with a group of students, and clinical experience and teaching in sport and exercise medicine is coordinated by that department.

Results

Of 30 questionnaires issued, 26 were completed and returned, giving a response rate of 87%. Seven medical schools taught sport and exercise medicine in a formal context within the core curriculum, and, in six schools, sport and exercise medicine was offered as an optional module. The proportion of students who were taught sport and exercise medicine ranged from 10% to 100% in different schools. We identified in which year sport and exercise medicine was formally taught as a lecture, as a study module, or as a clinical attachment (table 1).

Table 1 Provision of education in sports and exercise medicine in medical schools

Year when available	*Lecture*	*Study module*	*Clinical attachment*
Year 1	4	1	1
Year 2	4	5	1
Year 3	2	6	2
Year 4	1	4	3
Year 5	1	1	3

Results are expressed as number of medical schools where this is available.

Table 2 Examinations in sports and exercise medicine

Type of assessment	*Number of medical schools*
MCQ	4
OSCE	4
Written exam	2
Written project/coursework	1
Case presentation	1
No formal assessment	1

When asked which specialists were primarily responsible for teaching sport and exercise medicine, an accident and emergency consultant, general practitioner, orthopaedic surgeon, and rheumatologist were each cited once and a sport and exercise medicine consultant was cited on three occasions. Non-clinicians identified included a lecturer in anatomy, an exercise physiologist, and a biochemist. We were also interested to record that formal sport and exercise medicine assessment took place in 12 medical schools in a variety of formats (table 2)

Respondents were asked about other opportunities for students to obtain further teaching in sport and exercise medicine. Of those who responded, two universities offered an intercalated degree in sport and exercise medicine, 10 would allow students to undertake an elective in sport and exercise medicine, and seven stated that there was an opportunity for interested students to attend additional sport and exercise medicine clinics. Only two stated that their university had ever awarded a higher research degree (MD/DM/PhD) to a medical doctor in this discipline.

Those universities that did not currently teach sport and exercise medicine were asked if they intended to introduce undergraduate teaching in sport and exercise medicine within the next five years. Five medical schools replied in the affirmative and nine replied that they did not intend to introduce teaching. The most important barriers to the introduction of undergraduate teaching in sport and exercise medicine were "no space in the current curriculum" (four universities), "there is enough sport and exercise medicine taught informally during normal teaching" (four universities), or "no-one qualified to teach sport and exercise medicine in the university" (one university).

Discussion

Sport and exercise medicine is a relatively new discipline, which has not yet achieved formal recognition as a specialty. According to the findings of this single study, it is taught either formally or informally in 13 of the 28 medical schools who replied to our questionnaire. A further five intend to introduce teaching within the next five years. There is considerable optimism that the Intercollegiate Academic Board will promote specialty recognition,[2] and if, in five years time, two thirds of medical schools include sport and exercise medicine in undergraduate education, the future is bright. It is also interesting to note that almost all those who teach the discipline have some form of assessment, which may be interpreted as a further sign that it is taken seriously.

Medical students would prefer more exposure to sport and exercise medicine, applaud recent developments, and even suggest compulsory sports medicine education.[3] General practitioners think likewise, and, in a recent survey, 72% felt inadequately trained to practice sport and exercise medicine, 76% would welcome more training, and 36% felt that their undergraduate orthopaedic training was of no value in primary care.[4] The Intercollegiate Academic Board of Sport and Exercise Medicine hopes that the development of postgraduate training programmes in sport and exercise medicine will encourage universities to recognise the value of teaching special study modules and electives in the discipline.[5]

Sport and exercise medicine is a multidisciplinary specialty, which has the potential to provide a medical student with valuable learning opportunities at various stages of his/her training. With particular interest in the health benefits of exercise, there are important public health implications. One could argue strongly that sport and exercise medicine is well placed to meet the recommendations of the GMC for the medical curriculum and that it should become an integral part of the curriculum in all medical schools. It is difficult to know who should be teaching it at present, and this is reflected in the variety of doctors identified as responsible for teaching.

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