CAREER OPPORTUNITIES IN SPACE MEDICINE:
Have Medical Students’ Awareness Increased since the First UK Space Medicine Conference?

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Introduction

Space medicine is defined as ‘the medical science of the biological, physiological and psychological effects of space flight upon humans’. To date more than 240 human space flights have been completed, involving around 450 astronauts from various countries. This gives a combined total presence in space of more than 70 years. During this time much research has been carried out on both human and animal models. These include the study of:

- Effects of radiation
- Immune function changes
- Crew and crew-ground interactions
- Bone demineralisation
- Muscle deconditioning
- Space motion sickness
- Post-flight orthostatic intolerance

The medical students questioned were from year 1 to 5, with a small minority being post-graduate students. The average age was 23 years in both groups (2004 group had 48 M, 52 F; 2005 group had 51 M, 49 F). Before the first UK Space Medicine Day conference 17% of students knew something about space medicine, this increased to 44% after the conference (Figure 3A).

Aims

The aim of the study is to see if medical students’ awareness of career opportunities in space medicine has increased since the first UK Space Medicine Day, 2004.

Methods

A questionnaire (Figure 2A) was completed by 100 medical students before the first UK Space Medicine Day and another 100 medical students thereafter. The second 100 students were given two articles about space medicine to read (published in the student BMJ) followed by additional questions to answer.

Results

Under a sixth (15%) had considered a career in space medicine before reading the space medicine articles. This increased to 43% after the students had read the information sheet.

Figure 2A. Questionnaire

Figure 3A. Do you know anything about space medicine?

Figure 3B. Where did you learn about it?

Of those that knew about space medicine before the conference, over half had learnt about it through the media (9 students).

However, the largest educating factors after the conference included medical journal (19 students) and the media (13 students), followed by the first UK Space Medicine Conference (4 students) (Figure 3B).

Discussion

Space medicine is a super-specialised field and so understandably is not part of the core undergraduate medical curriculum. The study has shown that since the first UK Space Medicine Conference, awareness of the subject has massively increased from 17% to 44% being aware of career opportunity in space medicine. Before the conference most students learnt about space medicine through the media. Since then other educating factors included medical journals and the conference itself.

It was shown that after students were briefly educated about space medicine, there was a two and a half fold increase in the number that would consider a career in this field. The results suggest that most students do not consider a career in space medicine because of the lack of awareness of the subject. However, over the last year since the first UK Space Medicine Conference better publicity has led to a greater number of students considering it as a career opportunity.

“A education is not filling a bucket but lighting a fire.”

William B. Yeats

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References