

Is participation in research as an investigator an effective form of continuing medical education?

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SUMMARY

Continuing medical education and research are a daily necessity for general practitioners (GPs). This study investigated the possibility that participation in research is an effective form of continuing medical education. Although there was an indication that some modification of GPs' knowledge and skills had occurred, it was not possible to conclude that this was entirely due to participation in research.

Keywords: continuing medical education; research; general practitioners.

Introduction

TRADITIONAL approaches to continuing medical education, such as reading articles, lectures,¹ and courses,² appear to have little lasting effect on knowledge or behaviour of medical practitioners. Complex interventions, such as the use of outreach visits or local opinion leaders, are most likely to be effective.^{3,4}

In 1991, 154 general practitioners (GPs) participated in the EMGAM study (Etude Medecine Generale Alcool Metropole) to determine the prevalence in France of general practice patients with alcohol-related problems.⁵ They were all volunteers and most of them were GP trainers. Any GP who had undergone special training in alcohol-related problems in the previous two years were excluded. The participating GPs were required to administer a questionnaire about alcohol consumption to all patients aged 18 years and over who consulted during the course of a designated study day. The GPs learnt about the use of this questionnaire in a two-hour training meeting but they were not offered advice about intervention for patients with alcohol problems.

Informal feedback to the co-ordinators suggested that the participating GPs had increased their knowledge about alcohol problems and had changed their management. We therefore decided to investigate the possibility that participation in research had acted as an effective form of continuing medical education (CME).

Method

Three years after the EMGAM study, a 24-item questionnaire was developed to assess the potential impact of the study on the GPs' knowledge, understanding, and attitudes towards patients with alcohol problems. The questionnaire was sent to the 154 EMGAM GPs and to a control group consisting of 154 GPs cho-

sen at random. For the EMGAM GPs, the first line of the questionnaire referred to the survey 'since the EMGAM study'. For the control group, the first line of the questionnaire referred to 'in the last three years'. To assess the statistical differences, we used the chi-squared test.

Results

The response rates were 95.5% (147/154) in the EMGAM group and 85.5% (132/154) in the control group. The results showed statistical differences between the two groups in relation to the questions asking about active management of patients with alcohol-related problems (Table 1). There was no statistical difference between the two groups for the questions designed to elicit evidence of the GP's interest in undertaking specialist training in alcohol.

Discussion

The results show some important differences between the two groups and would appear to suggest that participation in the EMGAM study was associated with modification of the GPs' knowledge, attitudes, and skills about the detection and management of patients with alcohol problems. There was also an indication that some change in behaviour may have occurred. Care needs to be taken in interpreting the results. The assessment of educational value relied entirely on subjective answers given by the GPs to the questionnaire. Such responses do not necessarily reflect actual practice and we have no objective evidence to confirm these findings. Also, the EMGAM GPs were reminded about their previous research participation, which could have alerted them to the study hypothesis. It is not possible to conclude that the apparent changed behaviour in the EMGAM GPs was due to participation in research; other factors such as publicity, advertising, and public health campaigns and fashion may also have had an important impact⁶ but these effects should have been equivalent for both groups. When considering how generalisable the results are, it is important to remember that the very high response rates add strength to the study. However, the EMGAM GPs were volunteers and most of them were trainers; though not specifically involved in alcohol-related problems or research, they may well have been more enthusiastic and more up-to-date with their CME.

For all of the above reasons, the findings from this study should be treated with caution. However, they would be important if confirmed. There is little published evidence on the effectiveness of research as CME. The suggestion from this study that participation in research may lead to substantial changes in knowledge, skills, and attitudes is potentially very important. Now that CME and research are a daily necessity for GPs throughout the world, educational researchers and the organisers of CME should look more systematically into the connection between the two.

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Table 1. Results and comparison between EMGAM and control groups.

Since EMGAM or over the past three years:	EMGAM yes (%) (n = 147)	Control yes (%) (n = 132)	P
Do you feel more confident in dealing with patients with alcohol-related problems?	52	27	<0.01
Do you ask questions about alcohol consumption more easily?	58	46	<0.05
Are you more interested in patients with alcohol-related problems?	37	25	<0.05
Do you ask patients about their alcohol consumption more often?	61	40	<0.01
Do you actively seek a connection between alcohol and the reason for the consultation more often?	59	43	<0.01
Do you look for the possibility of an alcohol-related problem for a man more often?	53	35	<0.01
Do you look for the possibility of an alcohol-related problem for a woman more often?	65	52	<0.03

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