Does participation in CME SLG (Small Group Learning) influence medical practice? The experience of General Practitioners attending CME SLG after the introduction of the Medical Practitioners Act

Abstract:

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Abstract

In Ireland, Continuing Medical Education (CME) for GPs is delivered by a national network of 37 tutors who coordinate learning sessions for between 2 and 5 small groups of physicians (SGL). Each group meets up to 8 times per year; 1100 to 1700 doctors attend CME-SGL nationally each month, with numbers increased since the Irish Medical Practitioners Act. This study investigated whether CME-SGL improves clinical knowledge of doctors. A questionnaire was administered by 35 CME tutors at their scheduled meetings in November/December 2012; 1366 (96%) attendees responded. In total 1312 (97%) doctors reported that they want to improve their clinical practice, and 1143 (86.3 %) agreed that CME had helped them to do so. Of these, 1041 (91.1%) doctors gave specific examples. This survey provides evidence of how CME-SGL has impacted on the knowledge, skills, attitudes, prescribing, use of investigations, and application of guidelines and audit of these Irish GPs.

Introduction

Continuing Medical Education (CME) has been described as any and all ways by which doctors learn following formal completion of their training.[1] Increasing attention is being paid to CME as a mechanism for improving physician and patient outcomes.[2] According to Fox and Bennett,[3] CME is the systematic attempt to facilitate change in physiciansâ practice. The Irish Medical Practitioners Act of 2007 places a statutory obligation on all Medical Practitioners registered in Ireland to maintain their professional competence by participating in a recognized Professional Competence Scheme (PCS).[4] Such schemes require regular attendance at accredited educational meetings, and include an audit component. CME activities are underpinned by the belief that gains in knowledge lead physicians to improve their medical practice with resultant benefits for patient outcomes.[5] A number of reviews have been published during the past decade which have assessed the effectiveness of CME.[6-8] In March of 2009 the American College of Chest Physicians (ACCP) produced evidence based guidelines which make recommendations on the effectiveness of CME.[9] While the ACCP acknowledged that most of the evidence for CME was of low quality due to the heterogeneity of the studies, the guidelines nevertheless conclude that live media is more effective than print media, that multiple media techniques are more effective than single techniques, and that multiple exposures are more effective than single exposures. An earlier meta-analysis found that CME interventions designed and run for groups of participants from a single (medical) discipline were associated with better outcomes.[8] The authors suggest that it is possible that interventions with a single group of participants (e.g., only general practitioners) are more focused and present materials that are more relevant to the particular group. The finding that small group size also improves outcomes is thought to be linked to the opportunity to actively participate and to obtain information directly linked to practice concerns.[8]

In Ireland, CME-SGL for GPs is delivered by 37 tutors based locally throughout the country, and who coordinate small group learning (SGL) sessions for between two and five groups of physicians. Small groups of clinicians (usually between 8 and 12 members) meet to discuss cases, reflect on evidence presented in the meeting and consider what changes they will make to their own practice. Group leaders (who are themselves members of the small groups) help to facilitate teaching with the help of the tutor; there are approximately 68 group leaders involved in teaching in CME-SGL in Ireland. Groups usually meet in the evenings after work for approximately two hours. There are commonly between 7 and 8 meetings per group per year. Nationally, between 1100 and 1700 doctors attend each month. The tutor network is funded by the Health Service Executive (HSE), the national health authority. The Irish College of General Practitioners (ICGP) has a governance role, and administers the PCS for GPs. Teaching methods used in the delivery of CME-SGL include case discussion, use of video, problem based analysis, practice visits, discussion of clinical experiences, practical demonstrations, case review, practice management meetings and discussion of errors made in practice. The tutors who facilitate these meetings attend three tutor workshops annually. These workshops include discussion of the curriculum for CME-SGL, clinical updates and formative feedback for tutors on their leadership skills. The CME-SGL model of learning was started in 1983 by Dr Michael Boland and over the past 30 years the national network of tutors has grown to cover the entire country (Republic of Ireland). There are currently 1,074 small group meetings annually and approximately 2,900 GPs on the CME mailing list. This study was designed to see whether all this activity influences medical practice among doctors attending ICGP CME-SGL.

Methods

This study consisted of a self-administered questionnaire to be completed by all doctors attending CME-SGL. The first page of the questionnaire gathered demographic data, while the second page asked about the reasons doctors attend CME meetings. The third page asked doctors to give specific examples of how CME-SGL had influenced their own medical practice. Following ethical approval from the ICGP (June 2012), piloting and a discussion regarding implementation with all tutors occurred in September 2012. Subsequently, 35 tutors administered the questionnaires to all attendees at their next scheduled CME meetings (November / December 2012). Each tutor was asked to provide a list of the topics covered in CME-SGL during the previous year, and participants were asked to provide their answers based on this list. Doctors were asked to give specific examples of how CME had changed their practice in six domains including knowledge and skills, prescribing, attitudes, audit, investigations and use of guidelines in practice.

Results

Questionnaires were completed by 1366 GPs, a response rate of 96% of those attending CME meetings in November and December of 2012. The numbers attending CME have increased since the Irish Medical Practitioners Act came into effect on 1st May 2011 (Table 1). The demographics of respondents was typical of those working in Irish general practice, including a slight preponderance of males, a majority between 40 and 60 years of age, and a little less than one third (30%) working in single-handed practice (Table 2). Almost 60% of those surveyed had been in practice for 15 years or more.

Overall 97% of respondents said that they attend CME-SGL because of a desire to improve their clinical practice. A total of 86.3% of respondents agreed that CME had changed their clinical practice (Table 3), and of these, 91.1% gave specific examples of how this had occurred (Table 4). Ninety four percent of the total group of GPs who responded wanted the current CME structure to stay the same. A little over two thirds (70.6%) of doctors reported that CME-SGL helped them to comply with the audit requirements of PCS (Table 3). Out of this group of doctors, 843 (61.7%) gave specific examples of the CME topic or session in which audit teaching occurred. There was a positive linear relationship between the proportion of doctors agreeing that CME impacted on their practice and the number of years doctors had been attending CME. In a logistic regression comparing those who agreed that CME impacted on their practice with those who did not agree (combining disagreed/unknown), both age group and years attending CME remained significant independent predictors of whether CME has impacted on practice, while the number of years in general practice did not remain as a significant independent predictor.

Discussion

Irish CME-SGL is the first in Europe to provide structured countrywide access to education for GPs on a monthly basis. The unique, local, small group setting emphasizes live peer-group interaction, including reflection on practice. Meetings have varied structure and content, and a variety of teaching methods are applied. Evidence indicates that face-to-face activities provide effective education, especially in the setting of multiple exposures, while the use of multi-media and multiple education techniques have been shown to improve outcomes in CME.[8,9] Knowledge is a critical element of expertise, and is a good predictor of performance.[9,10] In this study we asked doctors to provide specific examples of knowledge and skills learned at CME-SGL. Almost all GPs currently participating in the CME-SGL program who responded to this survey (97%) stated that they want to improve their clinical practice, and nearly 9 out of 10 (86.3%) agreed that CME had changed this. Of those, 91.1% gave specific examples of how CME-SGL has impacted on their knowledge, skills and attitudes, including their prescribing practice, use of investigations, application of guidelines and implementation of audits (Table 3). The Professional Competence Scheme (PCS) in Ireland includes a requirement for GPs to actively participate in one audit exercise annually; 70.6% reported that CME-SGL helped them to comply with this.Several studies have attempted to better understand the characteristics of CME that are associated with improvement in the clinical performance of physicians.[8,11] These show a close link between the intensity of teaching strategies applied and their effect on clinical performance; moreover CME which focuses on interaction and active participation (e.g. case discussions, role-play, hands-on practical sessions) is most likely to affect changes in the performance of participants.[8,11] In contrast, evidence for the impact of formal lectures on performance is poor. Irish CME-SGL uses multiple teaching methods and multiple exposures; thus, the positive findings in this Irish study are consistent with international studies.[11]

Most doctors who participated in this study reported they also attend CME-SGL for peer support from their colleagues. The importance of this should not be underestimated; Zaher et al found that sharing experiences with colleagues in SGL helps doctors to reflect, as well as to acquire new knowledge and skills.[12] Most of these Irish GPs (91.1%) reported that reflection on practice occurred at CME-SGL. Activities that help participants to reflect on current clinical practice, relate that practice to established guidelines, and recommend evidence based strategies to overcome identified gaps have been shown to be very effective.[13] To our knowledge this is the first study to report on CME-SGL in Ireland. The questionnaire was administered by all tutors in a consistent fashion countrywide; the high response rate (96%) indicates that most doctors who attended CME meetings in late 2012 participated. Demographic data of respondents (Table 2) is representative of Irish GPs nationally, and reflect the feminization of general practice, as well as the desire of older GPs to satisfy the requirements of the PCS and so stay on the Medical Register. It is acknowledged that the use of self-reports is a potential source of bias. Reporting was limited to the content of the previous yearâ s teaching, and did not include doctors who were unable to attend CME meetings through illness, sabbatical or other reasons. Furthermore, it is possible that some responses may have been influenced by other meetings that GPs had attended during the previous year. The extent to which these factors may have influenced our results is unknown. As the structure of Irish CME-SGL consists of both a formal curriculum and informal learning opportunities, GPs may learn more from CME meetings than we were able to measure in this study. Moreover, our findings might have been different if GPs had been asked to complete the survey based on all the years they had been attending CME.

The numbers attending CME-SGL have increased markedly since the Irish Medical Practitioners Act came into force in May 2011, with 2013 attendances almost double those of 2009 (Table 1). GPs report their attendance is influenced by the requirements of the PCS (Table 3); each meeting provides 2 internal and 2 external CME credits, accumulated locally. Enlarging group size may have a negative impact on the small group learning methods employed in CME, as the opportunity for interaction between participants and reflection on practice may be diminished. In order to maintain the current format, shown by this study to be effective, expansion of the number of the tutors in the network is necessary. In conclusion, this study suggests that Irish CME-SGL has a positive impact on the clinical practice of GPs who attend, and supports the maintenance of CME-SGL in the current format. Future research is needed to assess the effect of CME interventions on doctorsâ actual performance, patient outcomes and population health.

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Acknowledgements

All 35 CME tutors who carried out this study and who worked so hard to give us the response rate we obtained; C McNicholas, assistant National Director, for all her work and support; B Kelly for the administrative work on this research; and all the GPs who very kindly participated in this study.

References

1. Davis D. Does CME work? An analysis of the effect of educational activities on physician performance or health care outcomes. Int J Psychiatry Med. 1998; 28: 21-39.

2. Benett N, Davis D, Easterling W, Friedmann P, Green J, Koeppen B, Mazmanian P, Waxman H. Continuing medical education: A new vision of the professional development of physicians. Acad Med 2000; 75:1167-1172

3. Fox R, Bennett N. Continuing medical education: Learning and change: Implications for continuing medical education. BMJ. 1998; 316:466-468

4. Irish Medical Council; Professional Competence: Guidelines for Doctors. The Irish Medical Council April 2011; pages 1-48

5. Davis DA, Thomson Oâ Brien MA, Freemantel N, Wof FM, Mazmanian P, Taylor-Vaisey A. Impact of formal continuing medical education. JAMA. 1999; 282: 867-874

6. Tian J, Atkinson L, Portnoy B, Gold R; A systematic review of Evaluation in Formal Continuing Medical Education. Journal of continuing education in health professionals 2007; 27:16-27

7. Davis DA, Mazmanian PE, Fordis M, Harrison RV, Thorpe KE, Perrier L. Accuracy of physician self assessment measures of competence: A systematic review. JAMA. 2006; 296:1094-1102

8. Mansouri M, Lockyer J. A metanalysis of Continuing Medical Education Effectiveness. Journal of Continuing Education in Health Professions 2007; 27:6-15

9. Davis D, Galbraith R. Continuing medical education effect on practice performance: effectiveness of continuing medical education: American College of Chest Physician Evidence-Based Educational Guidelines for Continuing Medical Education Interventions. Chest 2009; 135:42S-48S

10. Mazmanian PE, Davis DA, Galbraith R. Continuing medical education effect on clinical outcomes: effectiveness of continuing medical education; American College of Chest Physicians evidence based educational guidelines. Chest 2009; 135: 49S-55S

11. Davis DA, Thomson MA, Oxman AD, Haynes RB. Evidence for the effectiveness of CME. A review of 50 randomized controlled trials. JAMA 1992; 268:1111-17

12. Zaher E, Ratnapalan S. Practice-based small group learning programs. Can Fam Physician 2012; 58: 637-42

13. Davis DA, Thomson MA, Oxman AD, Haynes RB. Changing physician performance. A systematic review of the effect of continuing medical education strategies. JAMA. 1995; 274:700-705