

PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Effectiveness of traditional lectures and case methods in Swedish general practitioners' continuing medical education about COPD: a cluster randomized controlled trial
AUTHORS	Sandelowsky, Hanna; Krakau, Ingvar; Modin, Sonja; Ställberg, Björn; Johansson, Sven-Erik; Nager, Anna

VERSION 1 – REVIEW

REVIEWER	Sejong Bae University of Alabama at Birmingham, USA
REVIEW RETURNED	22-Feb-2018

GENERAL COMMENTS	<p>This paper investigates the effects of CME about COPD for GPs by comparing two commonly used CME methods with each other and no CME (reference group). A pragmatic cluster randomized controlled trial with primary health care centers (PHCCs) as units of randomization was used to control for potential contamination and bias. Sample size justification including intraclass correlation coefficient is provided. McNemar test and transitional model is described.</p> <p>Findings from this study will help modify/address CME sessions or other modality to address GPs' skills in managing COPD.</p>
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REVIEWER	Stefano Nardini Pulmonary and TB unit, general hospital, Via Forlanini, 71, 31029 Vittorio veneto, Italy
REVIEW RETURNED	27-Mar-2018

GENERAL COMMENTS	<p>GENERAL: Excellent paper, which covers a critical area in assisting people suffering from COPD and stresses the need of professional education about this disease..</p> <p>PARTICULAR: A nurse-led asthma/COPD clinic seems to be an advantage both in participating the trial and in completing it. Since this could facilitate GPs' activities on COPD patients I would like a comment on this point, if feasible.</p> <p>One explanation of the finding that CM does not seem to "lead to greater improvement in GPs'level of COPD-related knowledge and skills" (page 13, row 3) could be the previous knowledge of COPD-related issues which is stated "surprisingly low at the baseline" (page 17, row 39)..</p> <p>Since CM as a learning method requires previous knowledge and clinical experience (page 6, row 12) is it possible to get a comment about the possibility that a sequence of different CME interventions (where CM is not the first</p>
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	one) could be of use for designing effective CME interventions in COPD?
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VERSION 1 – AUTHOR RESPONSE

Reviewers' Comments to Author:

Reviewer: 1

Reviewer Name: Sejong Bae

Institution and Country: University of Alabama at Birmingham, USA

Competing Interests: None declared

This paper investigates the effects of CME about COPD for GPs by comparing two commonly used CME methods with each other and no CME (reference group). A pragmatic cluster randomized controlled trial with primary health care centers (PHCCs) as units of randomization was used to control for potential contamination and bias. Sample size justification including intraclass correlation coefficient is provided. McNemar test and transitional model is described.

Findings from this study will help modify/address CME sessions or other modality to address GPs' skills in managing COPD.

Authors' response: Thank you for your comments.

Reviewer: 2

Reviewer Name: Stefano Nardini

Institution and Country: Pulmonary and TB unit general hospital, Via Forlanini, 71 31029 Vittorio veneto, Italy

Competing Interests: none declared

GENERAL: Excellent paper, which covers a critical area in assisting people suffering from COPD and stresses the need of professional education about this disease.

Authors' response: Thank you very much.

PARTICULAR: A nurse-led asthma/COPD clinic seems to be an advantage both in participating the trial and in completing it.

Since this could facilitate GPs' activities on COPD patients I would like a comment on this point, if feasible.

Authors' response: Thank you for commenting on this issue. The impact of asthma/COPD clinics was unrelated to participation in and completion of the trial. The only difference that we observed between GPs who had an asthma/COPD clinic at their PHCC and those that did not was that only 3 of the 27 GPs who declined to fill in the baseline questionnaire were from PHCCs with such clinics.

As the absolute majority of GPs attending the CME sessions participated in the study, we did not consider the issue of non-participation very important. Furthermore, at baseline, 45% of the 255 responders, and at 12 months, 53% of the 133 responders worked at a PHCC with a nurse-led asthma/COPD clinic (see Table 1). Additionally, we did not find associations between GPs' scores and whether or not they worked at a PHCC with a nurse-led asthma/COPD clinic. We have now added a short sentence about this on p.12. To reduce the emphasis on the role of nurse-led asthma/COPD clinics, we have now slightly modified the text on p.11.

On the other hand, the fact that a nurse-led asthma/COPD clinic had no effect on the level of COPD knowledge in GPs is an interesting finding in itself, and has been described in more depth in our

recently (March 2018) published paper. We have now added two short sentences on this topic, found on pp. 6 and 13 and thus also added a new reference (Ref 15, our March 2018 article).

One explanation of the finding that CM does not seem to "lead to greater improvement in GPs' level of COPD-related knowledge and skills" (page 13, row 3) could be the previous knowledge of COPD-related issues which is stated "surprisingly low at the baseline" (page 17, row 39).

Since CM as a learning method requires previous knowledge and clinical experience (page 6, row 12) is it possible to get a comment about the possibility that a sequence of different CME interventions (where CM is not the first one) could be of use for designing effective CME interventions in COPD?

Authors' response: We agree with the reviewer and have now added information on this topic to the discussion on p.18.

FORMATTING AMENDMENTS (if any)

Required amendments will be listed here; please include these changes in your revised version:

1.No Figure legend

- Please include Figure legends at the end of your main manuscript.

Authors' response: These have now been added on p. 29.

2. Data Sharing Statement

- Please embed your DATA SHARING STATEMENT in your main document file.

Authors' response: The data sharing statement has now been added on p. 20.

VERSION 2 – REVIEW

REVIEWER	Stefano Nardini Pulmonary and TB unit- General Hospital- Vittorio Veneto (Treviso) - Italy
REVIEW RETURNED	26-May-2018
GENERAL COMMENTS	The answers by the authors are satisfying