PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	The complexity of managing COPD exacerbations: a grounded theory study of European general practice
AUTHORS	Risør, Mette; Spigt, Mark; Iversen, Robert; Godycki-Cwirko, Maciek; Francis, Nick; Altiner, Attila; Andreeva, Elena; Kung, Kenny; Melbye, Hasse

VERSION 1 - REVIEW

REVIEWER	Susanne Reventlow Research Unit for general Practice, Institute of Public Health, University of Copenhagen
REVIEW RETURNED	06-Oct-2013

GENERAL COMMENTS	This article presents a novel and original contribution to the research area concerning the complexity of managing COPD exacerbations in General practice. The fact that it is based on data from several countries makes it very interesting. The manuscript is well written, easy to read, and the empirical findings add new understanding to the literature in the field of research. The argument, as it is written, seems solid, and not much needs to be done. ***The introduction:*** The introduction is clearly written, and it thoroughly explains the background and aim of the study. The aim of this paper is to explore how GPs and respiratory physicians reason when managing patients with CORD exacerbations in clinical encounters. The aim is very specific and is therefore considered well suited for a comparative study. ***Methods, design, researchers positions:*** The design, method, and material are clearly and comprehensively described, appropriately detailed. The authors could have explained a little more about the researchers' background and position. In the given amount of space, it may be difficult to describe the researchers' pre-understanding prior to the study, but perhaps it should be discussed more the fact that the authors themselves represent several countries? Furthermore, they ought to describe in more detail whether they knew the participants beforehand, or whether perhaps the participants knew each other in the different focus groups.

	On page 5, the authors write that the interview guides contained certain topics which were based on known issues of concern to GPs. But what about the respiratory physicians? Did they have to relate to issues of concern to GPs and not to some specific concerns of their own? Maybe the authors could explain how they use the quotations in the presentation of the results? ***Analysis:*** The analysis is sufficiently described. ***Results:*** I find that the relationship between the aim, the data, and the findings are consistent. The authors describe and present the major themes clearly. When I look for the presentation of the three different themes of the results, I find the section of dealing with comorbidity quite coherent. While I understand the analytical distinction between the last two themes, I find that in some places there does not seem to be a great difference between the text in the section concerning difficult patients and the section about confronting a hopeless disease. These two themes are also related more to the participants' feelings than the first. The authors could try to make the difference a little more clear. ***Discussion:*** A good description and reflection on the strengths and weaknesses of the study. A good and focused discussion about the themes that appear in the result chapter. It is an interesting point that the results from the different countries are so alike – I would not have expected that. Perhaps the discussion could elaborate more on, if and how some of the mentioned differences of the method might have influenced the results or not? But also elaborate more on the implications of the different contexts that form the backgrounds of the participating physicians. Is the biomedical frame of reference consistent enough for the GPs/respiratory phsysicians to have that much in common? ***Small comments:*** The article uses the words respiratory physicians, pulmonologist, and secondary care physicians – why this different use of words? ***In summary:*** The paper is well-written, and I recommend that it be accepted after some minor changes.

REVIEWER	Yves Lacasse Institut universitaire de cardiologie et de pneumologie de Québec Université Laval Québec, Canada
REVIEW RETURNED	10-Oct-2013

GENERAL COMMENTS	This is a qualitative study with which I am not, probably like many readers, very familiar. However, I have several questions and concerns regarding this report. Who were the participants? It is only in the abstract that one can read that 142 general practitioners and respiratory physicians participated. More information is needed. Hong Kong "worked as a sort of validation of the European findings". How can an "outlier" be used for validation? The investigators identified 3 major concerns in the management of COPD. Dealing with comorbidities "Dealing with comorbidity is a concern which is significant for three different dimensions of clinical management of exacerbations: how to be sure it is an exacerbation, when to prescribe antibiotics or steroids, and when and who to hospitalize". This finding is rather surprising, given that respiratory physicians participated in the focus groups, and given that guidance already existed at the time the study was conducted as to how to manage COPD exacerbations (Rabe KF, et al. Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease. GOLD Executive Summary Am J Respir Crit Care Med 2007; 176: 532–555), even though most of the GOLD recommendations are not evidence-based. Having difficult patients In response to this concern, the authors suggest that "concrete future steps were identified in the data such as using management plans including rescue packs, having a nurse take specific care of self-treatment, and arranging teaching sessions involving the patient's spouse and family". What the authors describe is self-management that has already proved very effective in COPD (Bourbeau J, et al. Reduction of hospital utilization in patients with chronic obstructive pulmonary disease: a disease-specific self-management intervention. Arch Intern Med. 2003; 163: 585-91). Confronting a hopeless disease Physicians will always be faced with the fact that COPD is a progressive disease. Progressive does not necessarily mean "hopeless". Among others, concerns were raised regarding the limited access to respiratory rehabilitation, and the need of palliative care facilities. In this regard, I would agree with the authors: different health contexts may play a role in the construction of this concern.

VERSION 1 – AUTHOR RESPONSE

Reviewer Susanne Reventlow
Institution and Country Research Unit for general Practice,
Institute of Public Health, University of Copenhagen
Please state any competing interests or state 'None declared': None declared

This article presents a novel and original contribution to the research area concerning the complexity of managing COPD exacerbations in General practice. The fact that it is based on data from several countries makes it very interesting. The manuscript is well written, easy to read, and the empirical findings add new understanding to the literature in the field of research. The argument, as it is written, seems solid, and not much needs to be done.

The introduction:
The introduction is clearly written, and it thoroughly explains the background and aim of the study. The aim of this paper is to explore how GPs and respiratory physicians reason when managing patients with CORD exacerbations in clinical encounters. The aim is very specific and is therefore considered well suited for a comparative study.

Methods, design, researchers positions:
The design, method, and material are clearly and comprehensively described, appropriately detailed.

The authors could have explained a little more about the researchers' background and position. In the given amount of space, it may be difficult to describe the researchers' pre-understanding prior to the study, but perhaps it should be discussed more the fact that the authors themselves represent several countries?
Response: More information about the researchers' background and position related to the performance of the FGDs is relevant and has been elaborated in the manuscript under Methods. The discussion about country specific influence is added to the Discussion.

Furthermore, they ought to describe in more detail whether they knew the participants beforehand, or whether perhaps the participants knew each other in the different focus groups.
Response: We think the last point is mentioned already but to make it clearer it has now been moved to a separate paragraph, adding a line on the first point.

On page 5, the authors write that the interview guides contained certain topics which were based on known issues of concern to GPs. But what about the respiratory physicians? Did they have to relate to issues of concern to GPs and not to some specific concerns of their own?
Response: This has been explained on page 5 now.

Maybe the authors could explain how they use the quotations in the presentation of the results?
Response: We have added an explanation on this in the Analysis section.

Analysis:
The analysis is sufficiently described.

Results:
I find that the relationship between the aim, the data, and the findings are consistent.
The authors describe and present the major themes clearly. When I look for the presentation of the three different themes of the results, I find the section of dealing with comorbidity quite coherent. While I understand the analytical distinction between the last two themes, I find that in some places

there does not seem to be a great difference between the text in the section concerning difficult patients and the section about confronting a hopeless disease. These two themes are also related more to the participants' feelings than the first. The authors could try to make the difference a little more clear.
Response: We are aware that there is a fine balance between theme two and three and have tried to clarify this in the text.

Discussion:
A good description and reflection on the strengths and weaknesses of the study.
A good and focused discussion about the themes that appear in the result chapter. It is an interesting point that the results from the different countries are so alike – I would not have expected that. Perhaps the discussion could elaborate more on, if and how some of the mentioned differences of the method might have influenced the results or not?
Response: See elaborations made in the manuscript under Discussion.

But also elaborate more on the implications of the different contexts that form the backgrounds of the participating physicians. Is the biomedical frame of reference consistent enough for the GPs/respiratory physicians to have that much in common?
Response: See elaborations made in the manuscript under Discussion.

Small comments:
The article uses the words respiratory physicians, pulmonologist, and secondary care physicians – why this different use of words?
Response: Thank you for notifying us about this. We have changed the wording to a consistent term, that is, respiratory physicians. The mix was a leftover from earlier versions where we had not yet agreed upon what term to use.

In summary:

The paper is well-written, and I recommend that it be accepted after some minor changes.

Reviewer Yves Lacasse
Institution and Country Institut universitaire de cardiologie et de pneumologie de Québec
Université Laval
Québec, Canada
Please state any competing interests or state 'None declared': None declared

This is a qualitative study with which I am not, probably like many readers, very familiar. However, I have several questions and concerns regarding this report.

Who were the participants? It is only in the abstract that one can read that 142 general practitioners and respiratory physicians participated. More information is needed.
Response: We have added some information to illustrate this point but our material was not complete on information about e.g. gender or seniority. This information was not sampled systematically.

Hong Kong "worked as a sort of validation of the European findings". How can an "outlier" be used for validation?
Response: We have discussed if it is the right way to formulate the role of Hong Kong as a 'validation role' and find that this is not quite correct. We have deleted the sentence in the text and kept a sentence where we see the inclusion of Hong Kong as having a comparative purpose adding to the

analysis of the European countries.

The investigators identified 3 major concerns in the management of COPD.

Dealing with comorbidities
“Dealing with comorbidity is a concern which is significant for three different dimensions of clinical management of exacerbations: how to be sure it is an exacerbation, when to prescribe antibiotics or steroids, and when and who to hospitalize”. This finding is rather surprising, given that respiratory physicians participated in the focus groups, and given that guidance already existed at the time the study was conducted as to how to manage COPD exacerbations (Rabe KF, et al. Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease. GOLD Executive Summary Am J Respir Crit Care Med 2007; 176: 532–555), even though most of the GOLD recommendations are not evidence-based.
Response: A very good comment. Respiratory physicians were indeed less insecure about how to assess an exacerbation than the GPs and were more convinced and determined about what medication they would prescribe. However, they were asked to see management from the GP practice point of view and from that position they shared a common concern of e.g. how to deal with comorbidity. Also, they in all FGDs discussed existing guidelines and the use of them. Guidelines were overall well-known but in general practice only used specifically whenever a disease condition was unclear, e.g. regarding comorbidity. The clinical assessment for many GPs seemed not to be properly reflected in the guidelines. So, guidance does exist but was used variably and does not always reflect the complexity of clinical encounters. This finding was however not part of our analysis in this paper.

Having difficult patients
In response to this concern, the authors suggest that “concrete future steps were identified in the data such as using management plans including rescue packs, having a nurse take specific care of self-treatment, and arranging teaching sessions involving the patient’s spouse and family”. What the authors describe is self-management that has already proved very effective in COPD (Bourbeau J, et al. Reduction of hospital utilization in patients with chronic obstructive pulmonary disease: a disease-specific self-management intervention. Arch Intern Med. 2003; 163: 585-91).
Response: Thank you very much for this reference. We are aware that several self-treatment studies have been made and we refer to this study now in the manuscript.

Confronting a hopeless disease
Physicians will always be faced with the fact that COPD is a progressive disease. Progressive does not necessarily mean “hopeless”. Among others, concerns were raised regarding the limited access to respiratory rehabilitation, and the need of palliative care facilities. In this regard, I would agree with the authors: different health contexts may play a role in the construction of this concern.
Response: We agree and are happy that you see the role of health contexts as important too.