

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)	"Just like a normal pain" - what do people with diabetes mellitus experience when having a myocardial infarction - a qualitative study recruited from UK hospitals.
AUTHORS	Berman, Nikita; Jones, Melvyn; De Coster, Daan

VERSION 1 - REVIEW

REVIEWER	Karin Hellström Ångerud Umeå University Medical faculty Department of nursing Sweden
REVIEW RETURNED	04-Feb-2017

GENERAL COMMENTS	<p>This manuscript addresses an interesting and important subject and it is well written but some revision would be necessary to overcome some weaknesses. People with diabetes have an increased risk of MI and they have worse outcomes compared to people without diabetes. It is also known that they have longer delay before they seek medical care when they experience symptoms of MI. Therefore it is important to gain knowledge about how people with diabetes experience symptoms and about their illness narratives in order to design interventions to decrease prehospital delay. Research in this area is sparse and this article will contribute to the existing knowledge.</p> <p>Major comments:</p> <ol style="list-style-type: none">1. Aim of the study was "to investigate the symptoms people with diabetes experience when having a myocardial infarction, their illness narrative, and how they present to health services". The aim is broad and I am not sure you have answered it. It is unclear how "how they present to health services" are presented in the result. Some aspects of their illness narratives are also sparse or lacking in the result such as motives and triggers for seeking help (in the method section you describe that it was explored).2. The two main themes are symptoms and attribution and consequences and they seem logical, but when it comes to sub-themes or categories (you have not defined which) it becomes unclear. One subtheme is "Delay in seeking help and gradual onset of symptoms" and the name of that subtheme is confusing. Is it only gradual onset that leads to delay? Is not delay a consequence also of failure to attribute symptoms to MI or lack of symptom awareness or lack of awareness of increased risk of MI? <p>Minor comments:</p> <ol style="list-style-type: none">1. P 3 line 5-6. Conclusion, abstract: Have you studied delayed
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	<p>treatments from doctors or is it something your results might lead to? Please clarify.</p> <p>2. Some quotes are not representative for the sub-themes. P 15. Line34-37. The text above the quote describes that they seem unaware of high risk for MI but in the quote it is said “it does run in the family”. P 14 line 16-17 the quote “I think to be honest it (chest pain) came on suddenly but I tended to ignore it” is under the sub-theme Delay in seeking help and gradual onset of symptoms. P 16 line 50-51 it is said that only one experienced sense of impending death but in the quote on P11 line 9-12 he/she said “you think you’re gonna die...”.</p> <p>3. Consider to change “diabetics” to “patients, people or persons with diabetes”. It is debated whether this matter, but to those with the condition, it can be a difference between being a person with the disease and becoming the disease. And your study is from the patient’s perspective.</p> <p>4. P 22 line 36-38, reference 26: it is not properly referred to as a book.</p>
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REVIEWER	Elisabeth Björk Brämberg Karolinska institutet, Sweden
REVIEW RETURNED	23-Feb-2017

GENERAL COMMENTS	<p>This is an interesting paper, which highlights an important topic related to persons with multimorbidity. I’ve some concerns related to the introduction, method and findings. I’ve specified my recommendations below.</p> <p>Introduction: I’d like to recommend a more thorough description of previous studies with qualitative design related to the study’s aim (diabetes mellitus and symptoms when having a myocardial infarction) or, if there’s a lack of research, relate your search to diabetes mellitus and e.g. cardiovascular disease). Please elaborate the study’s rationale and include previous research with a qualitative design.</p> <p>Methods page 8: Be more specific about the different levels used in the analysis, i.e. there are themes, and, as I guess, sub-themes and maybe another level presented in the findings. Line 12-13: you mention a thematic framework, I’d like to have some more information about this framework and how it’s used to interpret the findings.</p> <p>Results: This section has to be developed regarding the descriptions of each level presented in the findings (i.e. theme, sub-theme and maybe another level, please check “atypical presentations”, “experiences of repeat MIs”). Elaborate on the different levels used in the findings, e.g. give a detailed description of the theme and how the sub-themes are related to this. For example, the theme “Symptoms” is only indicated as a heading with no further descriptions. This leaves the interpretation of the quotations to the reader. Add some analysis using the thematic framework which is mentioned in the method section (please see comment above).</p>
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REVIEWER	Ann-Sofie Forslund Research departement, Region Norrbotten, Sweden
REVIEW RETURNED	02-Mar-2017

GENERAL COMMENTS	<p>Thank you for the privilege to read this manuscript which I find interesting and valuable. I include suggestions for clarifications that would give the paper a stronger appeal for me.</p> <ol style="list-style-type: none"> 1. The study aim described in the abstract is threefold, but the aim described in the background is single. In the methods section you also describe that you will explore other aspects such as for example motives and triggers. There are no research questions. 2. Abstract-Please see comment regarding the study aim. Spell out abbreviations the first time they are used. Line 20 within the brackets can be removed , it is described at line 27-30. Line 22, unclear if 43 patients consented to participate in the study and were interviewed. Or did 43 consent and were interviewed but only 39 interviewes were used? If so why are four patients interviewed if they did not meet inclusion criterias. No design is described. Results, clarifiy what symptoms patients with diabetes experienced and the illness narrative and how they present to health services. Please add clinical implications and suggest future research 3. Study design is not described 4-5. Please describe who invited the patients in the study, and how the patient was informed about the study, Lack information if patients signed a consent form. Please insert a reference for pragmatic sample. Please clarify how the semi structured questions were constructed and validated. How did you use the field notes in your analysis. Please clarify and describe how your anlysis were performed. 8. Add references at page 5, line 23 and 53. 9-10. The results, themes and sub-themes need further processing to answer the study aim, se comments about the aim. The first 38 lines om page 9 address issues about the methods and how data were collected. Please explain the interview duration range 5-48 minutes and if such a short interview could include all the answers you needed. One interview were conducted with a translator, how did that affect the participant and the interview? 11. The discussion at page 17 do not discuss the results in relation to other references. Please add a conclusion.
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VERSION 1 – AUTHOR RESPONSE

Reviewer 1

Thankyou for commenting that “an interesting and important subject and it is well written”.

You identify our aim of “how they present to health services”. We have clarified this as “how they present their symptoms to the health service” We have added a clearer aim at the end of the background section.

Some aspects of their illness narratives are also sparse or lacking in the result such as motives and triggers for seeking help (in the method section you describe that it was explored).

There is clearly a tension with so much qualitative data and a relatively tight word count about what to include. There are areas of the results that speak to issues such as triggers eg “knowing something is wrong” p16 line 34, temporalising symptoms (eg p14 line 40) and cues to action (p13 line 7 line 13).

Major comments #2

Clarity of results structure: theme and sub-themes. We agree that we should better sign post the

themes and sub themes. Specifically we have separated out “Delay in seeking help and gradual onset of symptoms” into two separate themes and re-ordered the results in this section. We agree that we need to widen the range of causes of patient delay and have now inserted the following;

This delay could be ascribed to participants’ failure to attribute symptoms to MI, attribution to co-morbidities, lack of symptom awareness or lack of awareness of increased risk of MI; but participants often realised that something more serious was occurring when their symptoms did not improve.

Minor comments

1. P 3 line 5-6. Conclusion, abstract: Have you studied delayed treatments from doctors or is it something your results might lead to? Please clarify. We agree that we have insufficient data to justify this item in the conclusion. We have made this more tentative as follows;

While truly absent chest pain during MI among people with DM was rare in this study, patients’ attenuated symptoms often led to delay in seeking attention, diagnostic confusion and this may result in delays in receiving treatment.

2. Representative quotes

The quote on p15 had been overly edited and we agree had lost some its context as a result. An unedited section is now included that hopefully better conveys the patient’s lack of awareness of MI symptoms despite his very strong family history.

The quote on p 14 is now more clearly located within a “delay” theme

We agree about sense of impending death theme so have modified the line on p16 to read A “sense of doom” is often associated with the presentation of MI, but in this group only a few participants reported a strong sense of impending death.

3. We agree with not using the term diabetics and have altered this (see tracked changes). Where patients use the term themselves as a part of their quotes we have left this unaltered. Clearly we can’t change the multiple uses of this term in the references either.

4. We have updated the Ritchie and Spencer reference to the original 1994 book chapter.

Reviewer 2

Introduction: I’d like to recommend a more thorough description of previous studies with qualitative design related to the study’s aim (diabetes mellitus and symptoms when having a myocardial infarction) or, if there’s a lack of research, relate your search to diabetes mellitus and e.g. cardiovascular disease).

We had put most of the qualitative research relating to this field under the section- how this study fits into the existing literature section (p19) but have moved it to the background section and agree it would make more sense to locate it earlier in the manuscript in terms of the study’s rationale.

Please elaborate the study’s rationale and include previous research with a qualitative design. The new section with much more of the relevant qualitative literature is now included.

Methods page 8: Be more specific about the different levels used in the analysis, i.e. there are themes, and, as I guess, sub-themes and maybe another level presented in the findings See comments in response to reviewer 1 above which responds to this issue.

Thematic framework

We have included a revised section on the analysis and use of the thematic framework.

Elaborate on the different levels used in the findings, e.g. give a detailed description of the theme and

how the sub-themes are related to this. For example, the theme "Symptoms" is only indicated as a heading with no further descriptions. This leaves the interpretation of the quotations to the reader. Add some analysis using the thematic framework which is mentioned in the method section. We agree and have added a new paragraph to hopefully sign post this first theme.

Reviewer 3

Thank you for commenting that you found the manuscript "interesting and valuable".

1. We have now made the aims from the abstract and background consistent. We hope that this alteration means that the research question is now implicit in the study's aims?

See reviewer 1 who also made comments regarding the line "motives and triggers".

2. Abbreviations We have now reordered the abstract so the abbreviations are spelt out as they first appear.

Line 22, unclear if 43 patients consented to participate in the study and were interviewed. Or did 43 consent and were interviewed but only 39 interviewees were used? If so why are four patients interviewed if they did not meet inclusion criterias.

We have kept the numbers of all 43 interviews undertaken for transparency's sake but are happy to be guided by the editors if this makes the manuscript less clear. We could relatively easily reorder table 1 and the link to quotes. We have explicitly stated that we only analysed the data from those participants who met the criteria in full.

No design is described- thank you for spotting this important oversight in the abstract.

Results, clarify what symptoms patients with diabetes experienced and the illness narrative and how they present to health services. We have included a brief overview of the patients symptoms and narrative (line 43-52) but would struggle to include much more in the 300 word limit for the abstract.

3. Study design is not described.

We presume this relates to the abstract which we have now corrected. A very detailed description of the study design is available in the methods section.

4. Please describe who invited the patients in the study, and how the patient was informed about the study. This is described in the methods section but to improve clarity it has been reworded.

Please insert a reference for pragmatic sample. We have now added the following reference
Sampling and Choosing Cases in Qualitative Research: A Realist Approach Nick Emmel part two choosing cases Sage Los Angeles 2013

Please clarify how the semi structured questions were constructed and validated. The design of the topic guide is described under the methods section p7 line 33 of the original manuscript. It was not validated as this is not usually part of qualitative design where the topic guide is a more iterative process.

How did you use the field notes in your analysis? The field notes were largely used to help in the delivery of the study and to help ensure we met ethics requirements including timing of the "cool off" period.

Please clarify and describe how your analysis were performed.

The analysis is described at length under the methods section p8 (line 7 -22) but has been updated and revised.

8. Add references at page 5, line 23 and 53. Saracci reference has now been added.

9-10. Please explain the interview duration range 5-48 minutes and if such a short interview could include all the answers you needed?

The interviews were variable in length as described on p9 line 10. The few very short interviews still had some useful information so were included.

The interview done via a family translator should not strictly have been included but was a conversational mixture of the patient and their family communicating fluidly between English and their non- host language and contained a useful narrative so we decided to keep it in.

11. The discussion at page 17 do not discuss the results in relation to other references.

We have now added linking references to the discussion points that we raised.

Please add a conclusion. BMJ open suggests Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals as a structure and this doesn't recommend a conclusion after the discussion but we are happy to be guided on this issue.

We have tracked changes in the uploaded manuscript and we hope that you feel we have adequately addressed the editorial and reviewers' comments.

Yours

VERSION 2 – REVIEW

REVIEWER	Karin Hellström Ångerud Department of Nursing, Umea University, Sweden
REVIEW RETURNED	17-Apr-2017

GENERAL COMMENTS	The authors have have adequately addressed the comments I had and the revisions have made the manuscript clearer and should be of interest for the readers.
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REVIEWER	Elisabeth Björk Brämberg Karolinska institutet, Sweden
REVIEW RETURNED	11-Apr-2017

GENERAL COMMENTS	The authors have done a nice work revising the manuscript and I only have some minor comments related to the analysis and levels presented in the resultssection. In the revised version, I can't see how the different levels presented in the results (themes, sub-themes, and a third level only indicated with a bullet in the results, e.g. Atypical presentations) have emerged during the analysis. The use of these levels have to be addressed in the description of the analysis, for example by how the analysis were developed from data, and into sub-themes and themes.
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VERSION 2 – AUTHOR RESPONSE

Reviewer 2

Thank you to both reviewers again for their time and attention. With regard to reviewer 2's comments about themes and sub themes, we have now added a comment about developing "themes and subthemes" from the data in the methods. We used the bullet point format to aid the presentation of the results and to give some clarity as to the content of the themes and sub themes.

There doesn't seem to be any clear guidance in the literature (for example Braun and Clarke) about when to demarcate themes and we couldn't find anything about when it is appropriate to categorise into themes and sub-themes. It was a subjective decision for us to split data into themes and sub themes, but driven by the data, and a theoretical perspective and that is related to our biomedical outlook as practising doctors.

VERSION 3 - REVIEW

REVIEWER	Elisabeth Björk Brämberg Karolinska institutet, Sweden.
REVIEW RETURNED	18-May-2017

GENERAL COMMENTS	Thanks for the possibility to review for BMJ Open. The authors' have done a good job with the revision and I'd like to recommend "Accept". Best regards!
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