PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	General practitioners' views and experiences in caring for patients after sepsis - a qualitative interview study
AUTHORS	Gehrke-Beck, Sabine; Gensichen, Jochen; Turner, Katrina; Heintze, Christoph; Schmidt, Konrad

VERSION 1 – REVIEW

REVIEWER	Susanne Brandstetter Germany
REVIEW RETURNED	21-Aug-2020

GENERAL COMMENTS	Review BMJopen: General practitioners' views and experiences in caring for patients after sepsis Thank you for the opportunity to review this manuscript. The improvement of care for patients after ICU is an important topic. The authors report findings of a qualitative study conducted with general practitioners who took part in the intervention arm of a major trial. The study's focus on general practitioners is very interesting considering their role within the context of the German health care system. However, I have two major concerns: First, when presenting the results, the authors should work more thoroughly; text and tables do not match. Second, the study could benefit from a theoretical framework. Further comments: Abstract: The first sentence of the conclusion is difficult to understand. This study is part of a larger trial, references to that trial are given. Could you provide some basic information on the results of the trial? This could help to interpret the findings of the present study. Methods: The authors refer to "the paradigm of critical rationalism". Please elaborate on what this means for this study and provide more information on the study's methodological foundation and the theoretical framework. Results: The themes presented in the results section do not correspond to the themes in table 1 and table 4/5. The results section reads: "three main themes… continuity of care and good relationship, lack of information during the acute illness and individual impact of persisting symptoms". Table 1 reports four subthemes which are worded different; table 4 again presents differently worded themes and subthemes. The same applies to the themes relating to the outreach education. Please clarify this!

	Page 9, line 36: How does the quotation ("unlucky course of events") relate to the theme "lack of information"? Discussion: Continuity of care was an important topic in the interviewees' accounts. Could you please elaborate on this interesting theme?. E.g., which measures are necessary to provide continuity of care, how to deal with different providers and institutions of care (ICU, rehabilitation units)? I miss a section about the researchers' reflection of their role. Which expectations did they have? How was the contact/relationship with the interviewees? Did the results meet their expectation etc.? Conclusion: "GPs are capable in provision of ICU follow-up". In general? After having received education? Minor comments or spelling errors. Page 5, line 53: academic detailing appear to change physician behaviour? Page 15, line 22: … but may have changes

REVIEWER	Reba Umberger, PhD, RN University of Tennessee Health Science Center
REVIEW RETURNED	24-Aug-2020

GENERAL COMMENTS	Thank you for the opportunity to review your manuscript. Sepsis is an extremely important problem, and the plethora of issues in recovery after sepsis remain surprisingly underrecognized by many healthcare providers. Better inpatient care has substantially improved in-patient mortality, leading to more survivors who have long-term problems (e.g., PICS, hospital readmissions, recurrent infections, and high risk of mortality). Many of these patients may fall through the cracks in the system since there is not a well-established path for them after discharge. Post-ICU clinics help to fill this need, but they are limited in their number and reach. Your work through the SMOOTH trial seeks to fill this important need. This paper provides feedback from a sample of 14 general primary care practitioners who share their experience with the parent study. Please see comments to clarify my responses to the follow reviewer questions above: 2. Overall, Yes. Please clarify if there are only three major themes. See the comment below. 4. Please cite a reference for critical rationalism and briefly expand the discussion on how this paradigm guided your qualitative methods. Page 8, line 37-38: It is a strength that one person conducted all interviews. Please clarify the interview or topic guide used. Table 1A/B is the coding framework that was developed during data analysis. 8. While references are appropriate, approximately half of them are over 5 years old. BMJ's qualitative reporting checklist requires use of SRQR reporting guidelines and citation of "O'Brien BC,

	Harris IB, Beckman TJ, Reed DA, Cook DA. Standards for reporting qualitative research: a synthesis of recommendations. Acad Med. 2014;89(9):1245-1251". This should be included. 10. Please include the timeframe when the interviews took place. There is some incongruence between the themes presented in the abstract, text, and tables. For example, only three themes are identified in the abstract: (1) continuity of care and good relationship with patients, (2) concentration of everyday functioning, and (3) lack of information about the intensive care unit stay). In the text, there are different heading levels for themes and subthemes that differ from those presented in table 4 and 5. Please clarify these differences. Each participant is represented within the selected quotes. Did you re-contact participants with the overall themes to determine if they agreed with the analysis (e.g., member checking) as this strengthens the researcher's analysis and confirmation of findings. If not, this should be listed as a limitation. Table 3: Spell out abbreviations I the footnote. It is unclear why N/A is included under license to practice. 12. If there was no member-checking to confirm findings, then note this as a limitation. 15. Here are a few suggested edits: Page 6, line 53: Please clarify academic detailing. Page 8, line 24: Suggest the term "mailed" rather than "posted". Page 12, line 38: Do not use contractions unless part of participant quotes. Page 16, line 20: Suggest the term "representative" rather than "presentative". Page 16, line 20: Suggest the term "in" rather than "into". Page 16, line 20: Suggest the term "informative" rather than "informants". Page 16, line 43: Suggest the term "residual" rather than "residing". Page 7: Please spell out numbers that are the first word of a sentence.

VERSION 1 – AUTHOR RESPONSE

Reviewer(s)' Comments to Author:

Reviewer: 1

1. Thank you for the opportunity to review this manuscript. The improvement of care for patients after ICU is an important topic. The authors report findings of a qualitative study conducted with general practitioners who took part in the intervention arm of a major trial. The study's focus on general practitioners is very interesting considering their role within the context of the German health care system.
However, I have two major concerns: First, when presenting the results, the authors should work more thoroughly; text and tables do not match.

➢ We thank the Reviewer and have re-read our manuscript and adjusted themes and subthemes in of all tables so that they are now consistent with the text. Numbering of tables has been revised to keep ascending order. Please see also our answer to your comment 6.

2. Second, the study could benefit from a theoretical framework.

➢ We have now included the following text in the last paragraph of the Introduction to explain the theoretical framework for development and evaluation of the intervention (line 35-37, clean version):

“The intervention evaluated in the trial was designed with reference to the Chronic Care Model[1] at the level of a GP practice. It is focused on patient empowerment, a proactive care team, and case management to ensure continuity of care”.

In addition, we have written the following in the Discussion, line 272-274:

“The Chronic Care Model[1] can be used to inform the ongoing care at the level of an individual practice, but also to organize patient-centered transsectoral and interdisciplinary care”.

3. Further comments:
Abstract: The first sentence of the conclusion is difficult to understand.

➢ We agree and have clarified the sentence to:

"GPs provide individual and continuity of care to patients surviving sepsis.”

4. This study is part of a larger trial, references to that trial are given. Could you provide some basic information on the results of the trial? This could help to interpret the findings of the present study.

➢ We have included the main outcome of the trial to the Introduction, see line 37-38:

“The trial did not find did an improvement in mental health–related quality of life at 6 months after ICU discharge (primary outcome) compared to usual care.”

5. Methods: The authors refer to “the paradigm of critical realism”. Please elaborate on what this means for this study and provide more information on the study’s methodological foundation and the theoretical framework.

➢ We explained this paradigm now in the Method section, see “Study design and data collection”, line 70-72:

“Qualitative methods are applied within the paradigm of critical realism[2] completing the results of the quantitative evaluation using a qualitative exploration. Critical realism can be used to understand the complexities in primary care and events and phenomena in this setting[3].”

6. Results: The themes presented in the results section do not correspond to the themes in table 1 and table 4/5. The results section reads: “three main themes… continuity of care and good relationship, lack of information during the acute illness and individual impact of persisting symptoms”. Table 1 reports four subthemes which are worded different; table 4 again presents differently worded themes and subthemes. The same applies to the themes relating to the outreach education. Please clarify this!

➢ We agree and have revised wording in the text and tables so it is now consistent. The three themes identified in patient aftercare are now:

- Continuity of care and good relationship with patients
- GP´s experiences during critical illness
- Impact of persisting symptoms

The impact of the outreach education now has been summarized in these themes:

- Acceptability
- Improvement of knowledge
- Transfer into practice

For subthemes, see Tables 4 and 5.

7. Page 9, line 36: How does the quotation ("unlucky course of events") relate to the theme "lack of information"?

➢ We have now reworded the main theme to "GPs´ experiences during critical illness", see also our answer above. Now, all experiences can be subsumed under this heading.

8. Discussion: Continuity of care was an important topic in the interviewees' accounts. Could you please elaborate on this interesting theme? E.g., which measures are necessary to provide continuity of care, how to deal with different providers and institutions of care (ICU, rehabilitation units)?

➢ These additional aspects of continuity of care are now added:

- The Chronic Care Model is now mentioned in the introduction, a theoretical framework to ensure continuity of care, see point 2. It includes patient empowerment, case management as well as a proactive care team.

- As a practical implication, we now list options to increase intersectoral information flow in the Discussion, see line 277-279:

"In addition, increased intersectoral information flow possibly also contributes to ensure continuity of care. E.g. quality of discharge letters may be improved by training, checklists, software solutions or positive peer pressure."

- Continuity of care provision as one of the key competences in primary care is now highlighted in the Conclusion, see line 295:

"GPs are in a good position to offer continuity of care to sepsis survivors."

- Continuity of care has been included as a subtheme in Table 4, see second line.

9. I miss a section about the researchers' reflection of their role. Which expectations did they have? How was the contact/relationship with the interviewees? Did the results meet their expectation etc.?

➢ A detailed section about the background and possible expectations of all researchers has been added to the Method section, see line 75-81:

"The research team consisted of a 4th year medical student (NS), who conducted the interviews as part of a research project, and four academic GPs (SGB, CH, KS, JG) who were involved in analyses

of the data. NS had received training in qualitative research interviews and was regularly supervised throughout the study by SGB and CH, who are experienced qualitative researchers. NS had not been involved in the SMOOTH trial, and interviewees were informed of this, to ensure they felt comfortable making any negative comments about the trial. SGB, CH, KS and JG were involved in the trial. At the time of the interviews they were not aware, that the outreach education did not change patient´s mental health related quality of life (primary outcome)."

10. Conclusion: "GPs are capable in provision of ICU follow-up". In general? After having received education?

➢ In the Conclusion, we tried to state that both are true: GPs are in a good position to provide ICU follow up, but suboptimal information flow and lack of specific knowledge are barriers. We have revised the Conclusion to make this clearer. It now reads, see line 295-96:

"GPs are in a good position to offer continuity of care to sepsis survivors. However, they need training and information flow from secondary care for optimal aftercare provision."

11. Minor comments or spelling errors.
Page 5, line 53: academic detailing appear to change physician behavior?

➢ This spelling error has now been corrected

Page 15, line 22: … but may have changes

➢ This spelling error has now been corrected

Reviewer: 2

Thank you for the opportunity to review your manuscript. Sepsis is an extremely important problem, and the plethora of issues in recovery after sepsis remain surprisingly underrecognized by many healthcare providers. Better inpatient care has substantially improved in-patient mortality, leading to more survivors who have long-term problems (e.g., PICS, hospital readmissions, recurrent infections, and high risk of mortality). Many of these patients may fall through the cracks in the system since there is not a well-established path for them after discharge. Post-ICU clinics help to fill this need, but they are limited in their number and reach. Your work through the SMOOTH trial seeks to fill this important need. This paper provides feedback from a sample of 14 general primary care practitioners who share their experience with the parent study.

Please see comments to clarify my responses to the follow reviewer questions above:

2. Overall, Yes. Please clarify if there are only three major themes. See the comment below.

➢ We have revised wording in the text and tables so it is now consistent. The three themes identified in patient aftercare are now (see also our answer to Reviewer #1, point 6):

- Continuity of care and good relationship with patients
- GPs´ experiences during critical illness
- Impact of persisting symptoms

4. Please cite a reference for critical realism and briefly expand the discussion on how this paradigm guided your qualitative methods.

➢ We added two citations (Ref. 2 and 3, see below) and expanded the Method section by the rationale of the qualitative approach, see line 70-72 (clean version) and also our answer to comment 5 of Reviewer #1:

“Qualitative methods are applied within the paradigm of critical realism[2] completing the results of the quantitative evaluation using a qualitative exploration. Critical realism can be used to understand the complexities in primary care and events and phenomena in this setting[3].”

Page 8, line 37-38: It is a strength that one person conducted all interviews. Please clarify the interview or topic guide used. Table 1A/B is the coding framework that was developed during data analysis.

➢ For clarification, the Method section has been expanded to include the following text, see line 83-85:

“A topic guide was developed and based on the aims of the study and an understanding of relevant literature. The questions included focused on the GPs’ experiences of caring for patients who had survived sepsis, and their experiences of the trial intervention.”

8. While references are appropriate, approximately half of them are over 5 years old. BMJ’s qualitative reporting checklist requires use of SRQR reporting guidelines and citation of “O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. Standards for reporting qualitative research: a synthesis of recommendations. Acad Med. 2014;89(9):1245-1251”. This should be included.

➢ Where appropriate, references have been updated. In total, 10 new references have been added, including findings from a recent study of critical care nurses delivering a recovery programme for intesive care survivors[4] and a scoping review of qualitative literature of patients’ support needs following critical illness[5].

➢ The citation of the standards for reporting qualitative research (O´Brien 2104) has been added to the Method section, see line 105:

“This study refers to the standards for reporting qualitative research (SRQR).”

In the Declaration section we state, see p. 17:

“The BMJ’s qualitative reporting checklist has been created based on the reporting guidelines of standards for reporting qualitative research (SRQR).”

10. Please include the timeframe when the interviews took place.

➢ We now state in the Result section that interviews were held between January 2013 to August 2013, see line 111-112.

There is some incongruence between the themes presented in the abstract, text, and tables. For example, only three themes are identified in the abstract: (1) continuity of care and good relationship with patients, (2) concentration of everyday functioning, and (3) lack of information about the intensive care unit stay). In the text, there are different heading levels for themes and subthemes that differ from those presented in table 4 and 5. Please clarify these differences.

➢ We have revised the wording of the themes in the text and the tables to ensure there is consistency between the two, see also our answer to your second question. The three themes detailed in the paper now come under the head of “caring for post-sepsis patients after critical illness”:

- Continuity of care and good relationship with patients
- GPs´ experiences during patients critical illness
- Impact of persisting symptoms

➢ Themes and subthemes regarding the “impact of the outreach education” are subsumed under the second sentence of the abstract´s Results section:

“An outreach education as part of the intervention was considered by the GPs to be acceptable, helpful to improve knowledge of the management of post-intensive care complications and useful for sepsis aftercare in daily practice.”

11. Each participant is represented within the selected quotes. Did you re-contact participants with the overall themes to determine if they agreed with the analysis (e.g., member checking) as this strengthens the researcher’s analysis and confirmation of findings. If not, this should be listed as a limitation.

➢ There was no member-checking, due to time restrictions of the GP practices. We added this limitation to the limitation section, see line 289-292:

“As GPs are used to work under pressure, they were able to answer questions quickly and to summarise their experiences. Due to the time pressures they were under, those interviewed were not contacted again to explore whether they agreed with the researchers’ analysis of the data. However, themes and subthemes were discussed repeatedly in the research group.”

Table 3: Spell out abbreviations in the footnote. It is unclear why N/A is included under license to practice.

➢ This Table (new Table 2) has been revised following a suggestion of the Editor (see our answer) and does not contain that abbreviation any more.

12. If there was no member-checking to confirm findings, then note this as a limitation.

➢ Please see our response above to your comment No.11.

15. Here are a few suggested edits:

Page 6, line 53: Please clarify academic detailing.

➢ Academic detailing means a form of outreach education. We revised our wording and avoided this term for better understanding, see Introduction, line 27-28:

“Outreach education delivered by academics to the GPs appeared to change their clinical behaviour and improve patient care.”

Page 8, line 24: Suggest the term “mailed” rather than “posted”.
Page 12, line 38: Do not use contractions unless part of participant quotes.
Page 16, line 20: Suggest the term “representative” rather than “presentative”.
Page 16, line 20: Suggest the term “in” rather than “into”.

Page 16, line 20: Suggest the term “informative” rather than “informants”.
Page 16, line 43: Suggest the term “residual” rather than “residing”.
Page 7: Please spell out numbers that are the first word of a sentence.

➢ Thank you for your suggestions. We have address all of them apart from the second, as we are unsure what is meant by “Do not use contractions unless part of participant quotes”?

VERSION 2 – REVIEW

REVIEWER	Susanne Brandstetter Germany
REVIEW RETURNED	04-Dec-2020

GENERAL COMMENTS	Thank you for the revision of your manuscript. My concerns have been addressed. I have only a few comments: -Methods: “291” was changed to “two hundred and nineteen” -How does the quotation for the subtheme “continuity of care” relate to this theme? -GP’s experiences during critical illness: Maybe this theme should be named: GP’s experiences during their patient’ s critical illness?

REVIEWER	Reba Umberger, PhD, RN The University of Tennessee Health Science Center, USA
REVIEW RETURNED	10-Dec-2020

GENERAL COMMENTS	Thank you for the opportunity to review this manuscript again after initial revisions. The authors have sufficiently addressed each point of concern. Their work contributes to a better understanding of General Practitioner perspectives in caring for patients post-sepsis and lessons learned from their outreach training program. Minor revision recommended/not required: The table “Self-declared details of interviewed GPs” has been revised to summarize the data. Consider spelling out GPs in the title and changing the direction of the table such that the current column headers are arranged in rows for the first column (specific categories can be indented under the variable) and participant data (number (percentage) or mean (std)) for the second column.

VERSION 2 – AUTHOR RESPONSE

Reviewer: 1

Thank you for the revision of your manuscript. My concerns have been addressed. I have only a few comments:

-Methods: “291” was changed to “two hundred and nineteen”

➢ Thank you. We ask for excuse and have changed this error to “two hundred and ninety one”, see p. 6, line 51.

-How does the quotation for the subtheme “continuity of care” relate to this theme?

➢ We agree, this subtheme seems not to be covered sufficiently in the Result section. For an increased emphasis, this quotation (already shown in Table 4) has been added, see p. 10, line 135-136.

„Well, I basically got to know Mr. (…) only as an acute patient after the hospital admission. He looked for a new GP after this adverse fate happened to him.”

-GP’s experiences during critical illness: Maybe this theme should be named: GP’s experiences during their patient’ s critical illness?

➢ We thank the reviewer for this advice and rephrased this theme throughout the manuscript, see Abstract, p. 9, line 118, p. p. 10, line 138, Table 1B, Table 4.

Reviewer: 2

Thank you for the opportunity to review this manuscript again after initial revisions. The authors have sufficiently addressed each point of concern. Their work contributes to a better understanding of General Practitioner perspectives in caring for patients post-sepsis and lessons learned from their outreach training program.

Minor revision recommended/not required: The table “Self-declared details of interviewed GPs” has been revised to summarize the data. Consider spelling out GPs in the title and changing the direction of the table such that the current column headers are arranged in rows for the first column (specific categories can be indented under the variable) and participant data (number (percentage) or mean (std)) for the second column.

➢ Following this advice of the Reviewer, we changed title and table accordingly, see Table 2. Also percentages have been added.