Author's response to reviews

Title: Barriers and facilitators to implement shared decision making in multidisciplinary sciatica care: a qualitative study

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Author's response to reviews: see over
Dear Dr. Sharon Straus,

Thank you for reviewing our paper: “Barriers and facilitators to implement shared decision making in multidisciplinary sciatica care: a qualitative study”.

We thank Dr. Giguere and Professor Thomson for the comments on our paper; they are very helpful for improving our paper. Attached please find a revised version of the paper, with the revisions highlighted with 'track changes'. In this letter we explain which adjustments we have made in response to the comments made.

1. Gap in the evidence

Reviewer 1: Research should address identified gaps in knowledge and build on the available evidence. In the present case, there are a few important studies reporting barriers to implementation of SDM, but the authors have cited only the first one authored by Legaré et al. [1,2] A recent demonstration study [3] has also described barriers to SDM implementation and it might be useful to see how its results concur/differ with the results from the present study. There is also a study of the barriers to implementation of SDM as perceived by dieticians that could be used to discuss the results [4]. More importantly, a study of the barriers/facilitators to inter-professional SDM [5] was not mentioned in the present report, although there are similar challenges in implementing SDM with inter- and multidisciplinary contexts. Because the present study aims to identify the specific barriers to implementing SDM in the context of multidisciplinary care, and for a specific health problem, sciatica care, the authors should then highlight the specific contribution made by this study to the available knowledge base. This could be incorporated in the presentation of results, or in the discussion, by listing the barriers/facilitators specific to implementation of SDM in multidisciplinary context, and barriers/facilitators specific to sciatica care. The results and discussion sections should be rewritten in this perspective.

Reviewer 2: The authors’ exploration of SDM across a multidisciplinary setting has the potential to make a worthwhile contribution to the field, but the paper would benefit from a clearer and more convincing statement regarding the gap in the evidence base that this study attempts to address and further discussion of existing work in this area – currently the paper refers to a single systematic review of barriers and facilitators undertaken in 2008 to justify this.

Reviewer 2: The discussion needs to make more links with the existing literature. As above, much more discussion of commonalities and discrepancies in professional versus lay accounts of barriers and facilitators to SDM in a multidisciplinary setting would be welcome.

In summary the reviewers suggest (a) to improve the explanation on the knowledge base and the contribution of our study to this gap in the background (by among others, including more existing studies reporting barriers to SDM), and (b) to highlight the specific contribution of our study to the available knowledge base in the results or discussion. We thank the reviewers for these suggestions.

Ad a. To improve the explanation about the gap in the knowledge base, we updated our background section with literature as suggested by the reviewers, including a study about barriers specific to the implementation of SDM in the multidisciplinary context. In addition, we clearly stated what our study adds to the existing knowledge base:
Despite the increase in multidisciplinary care delivery, research into barriers and facilitators for SDM in a multidisciplinary setting, as in sciatica patients, is limited. A previous study that explored barriers and facilitators to SDM focused on barriers and facilitators for integrating SDM in inter-professional (IP) teams, better known as interprofessional SDM (IP-SDM) [17]. During an interprofessional approach, an effort is made to integrate and translate themes and schemes shared by several professionals [18]. It involves separate disciplines that integrate different approaches mostly into a single consultation [16]. Main barriers related to IP-SDM were an imbalance of power between health professionals of different disciplines, the existence of professional silos, and disagreement about roles and responsibilities between different disciplines [17]. Main facilitators related to IP-SDM were mutual knowledge and understanding of disciplinary roles, trust and respect between different disciplines. Part of these may also apply to multidisciplinary care. However, SDM in multidisciplinary sciatica care involves different disciplines in both primary care and hospital care working independently, who do not see the patient in one and the same consultation, but in several separate consultations [18]. This independent approach within different levels of health care may involve other (additional) barriers and facilitators than an interprofessional approach or health care working in the same organisation.

Ad b. To highlight the specific contribution of our study to the available knowledge base we made more links with the existing literature in the discussion and discussed commonalities and discrepancies more deeply specific for multidisciplinary care, and thereby provide new knowledge in the field which is also generalizable for other health problems with multiple disciplines involved.

2. Stronger justification for the use of qualitative methods

Reviewer 2: The paper needs a stronger justification for the use of qualitative methods and the particular analysis undertaken. The authors state that the “study aimed to identify the barriers and facilitators associated with the implementation of SDM in sciatica care”. Why was the particular method selected for this study? Was the aim to develop a categorisation of barriers and facilitators only, or was it to understand and explore in greater depth the nature of these barriers and facilitators with a view to informing development of approaches to address them, and hence improve SDM in this clinical setting. If also the latter, the authors have not made full use of the richness of their data. For example, there is no attempt to analyse the data with respect to behavioural aspects. Could use of the theoretical domains framework or the theory of planned behaviour have enhanced the analysis and interpretation of the findings with respect to subsequent intervention design?

In summary the reviewers suggest to provide a stronger justification for (a) the use of qualitative methods, and (b) to the particular analysis undertaken.
Ad a. The aim of this study is to explore and categorize barriers and facilitators associated with the implementation of SDM in multidisciplinary sciatica care. In the method section we further justify the use of qualitative methods.

p.7 “Interviews and focus groups reach the parts that quantitative methods cannot reach, because people’s knowledge and attitudes are not entirely encapsulated in reasoned responses to direct questions. This type of data collection can provide rich and in-depth information about the cognitions, motivations and experiences of individuals [17-20], which is well-suited for this type of study. The identification of similarities and differences in perceived barriers and facilitators contributes to a further understanding of professionals and patients attitudes and beliefs. This is important for the prediction whether they will use SDM, and enables us to develop a tailored based implementation strategy, with the main goal of improving the use of SDM in daily practice.”

Ad b. Our study is part of a research project [6], which also involves two others steps, namely the ranking of all the identified barriers and facilitators in this qualitative study, and in addition the development of an implementation strategy based on the highest ranked barriers and facilitators. In this qualitative study we categorize barriers and facilitators in a framework which is developed to achieve change in practice. New barriers and facilitators were explored, but these were also categorized within the framework. The determination of importance of each barrier and facilitator is part of a subsequent quantitative study. In this quantitative study professionals’ behavior towards SDM and differences in most important barriers and facilitators between professionals who use SDM and who do not use SDM will be determined. We think that combination of methods will provide us sufficient information for the development of a tailored based intervention which may change professionals behavior. We added this information to the discussion section. Concerning the use of the theoretical domains framework or the theory of planned behavior see point 3. Stronger case for the used framework.

p.29 “Therefore, in the next phase of this study we will carry out a quantitative study to determine which barriers and facilitators mentioned in this study are the most important for the adoption of SDM, and professionals’ behavior towards SDM and differences in most important barriers and facilitators between these groups will be determined.”

3. Stronger case for the used framework

Reviewer 1: The authors should explain their rationale in selecting the Grol and Wensing framework to code their barriers and facilitators. They should explain why this framework is the most appropriate in the present context. Since many other studies have looked at barriers to SDM implementation, the authors could also have used a framework from the barriers identified in these earlier studies.

Reviewer 2: The authors should justify use of Framework Analysis and of the selection of the Grol and Wensing framework further, as well as explaining further how the identified themes beyond this
framework emerged from their analysis.

We agree with the reviewers that we should further argue why we selected the Grol and Wensing framework. The framework of Grol and Wensing is based on several theoretical reflections on behavioral change (e.g. including the theory of planned behavior (TPB) [7]). For example we identified themes/barriers, which are overlapping with the TPB such as negative professionals’ attitude/behavior towards SDM (attitude), social influences of third parties (subjective norms), lack of skills for SDM (perceived behavioral control). In addition, our study focuses on multidisciplinary care. Therefore, we are also very interested in barriers and facilitators at the level of the organization and the environment, which is a level in the framework of Grol and Wensing, but to our opinion partly limited in for example the theoretical domains framework and TPB.

Furthermore, we expanded the method section with details about the analysis of the interviews to explain how the identified themes beyond the framework of Grol emerged in our analysis.

p.10 “Directed content analysis was used to analyze the interviews and focus groups. This method is well suited for research that would benefit from further description and to extend conceptually a theory or framework [27]. This framework describes how barriers and facilitators can be identified, categorized, and used for the development of a tailored-based intervention strategy to facilitate desired change, in this study implementing SDM [28]. Based on several theoretical reflections on behavioral change, this framework categorizes barriers and facilitators into six levels: the innovation (in our case SDM), the individual professional, the patient, the social context, the organizational context and the external environment (political and economic factors). We used predetermined categories of the framework of Grol and Wensing [28] to ensure that we would find all barriers and facilitators for the implementation of SDM in sciatica care. New codes were created for text that could not be categorized within these predetermined barriers/facilitators. Two researchers (SH and MW) independently coded the interviews and focus groups. Discrepancies were discussed until consensus was reached. In the next step reported barriers and facilitators were classified according to levels of the framework of Grol and Wensing. After classification of barriers and facilitators within the levels of the framework, three researchers (SH, PM, and LB) independently grouped the barriers and facilitators into themes for comparison between patients and professionals. Discrepancies were discussed until consensus was reached.”

4. Inter-and multidisciplinary care
Reviewer 1: The authors seem to be using inter- and multidisciplinary care interchangeably, although these are different concepts. I suggest defining and distinguishing the two terms at first mention.
We thank the reviewer for this suggestion. We added the following sentences to the introduction to distinguish the two terms:

p.6 “SDM in multidisciplinary sciatica care involves different disciplines in both primary care and hospital care working independently, who do not see the patient in one and the same consultation, but in several separate consultations [18].”

p.6 “During an interprofessional approach, an effort is made to integrate and translate themes and schemes shared by several professional [8]. It involves separate disciplines that integrate different approaches mostly into a single consultation [16].”

5. Data saturation

Reviewer 1: Please define how you evaluated data saturation.

In the method section we described how we evaluated data saturation:

p.9 “We continued with interviews until data saturation was reached. Data saturation was reached at the point that during the data gathering during three consecutive interviews emerged without new ideas [25].”

6. Explanation SDM

Reviewer 1: The authors should clarify how participants were informed about what SDM is, as they probably had to define the term at the beginning of the interview. It is a challenge to explore barriers to implementation of SDM when participants do not have any past experience in using SDM. In the past, authors have used videos or printed material to allow users to understand the approach. What have been the strategies to explain SDM to participants in the present study? This should be clarified in the report.

In our study we informed participants about what SDM is by providing them the definition of SDM known from literature [9]. In addition, we asked professionals (after we gave an explanation of SDM to them) to give an example of SDM in daily practice to determine whether they understood the concept of SDM. For patient, after the explanation of SDM, we gave an example of SDM in sciatica care. We added this information to the method section. Furthermore, the explanation (given in Dutch) is added to appendix 1. In Appendix 2 the explanation was already described.

p.9 “The following explanation of SDM was given: “In SDM, clinicians and patients make decisions jointly, weighting the evidence regarding different treatment options [10]. In sciatica care this means that patients are encouraged to consider both conservative and surgical treatment options, to communicate their preferences and help select the best treatment for their situation.” In addition, professionals were
asked to give an example of SDM in daily practice to determine whether the explanation was clear enough.”

p.9 “The following explanation of SDM was given: “In SDM, clinicians and patient make decisions jointly, weighting the evidence regarding different treatment options [10]. In sciatica care this means that patients are encouraged to consider both conservative and surgical treatment options, to communicate their preferences, and help select the best treatment for them. After the explanation, we gave an example of SDM in sciatica care.”

p.37 “Explanation of SDM: In SDM, clinicians and patients make decisions jointly, weighting the evidence regarding different treatment options. In sciatica care this means that patients are encouraged to consider both conservative and surgical treatment options, to communicate their preferences and help select the best treatment for their situation.”

7. **Purposive sampling**
Reviewer 2: It appears that a purposive sampling strategy was employed for the interviews with professionals to represent a range of views and opinions from different disciplines, regions with different surgery rates etc. In the results section it is also stated that age and experience were taken into account. If purposive sampling was employed then perhaps this needs to be made explicit in the methods section to resonate with the language of qualitative research?

We indeed applied purposive sampling for the selection of professionals for the interviews with professionals. We did not select participants based on age and experience, as the reviewer suggests, but on other criteria, namely surgery rates and hospital type (for professionals working in hospital care). In the methods section we have added the following text:

p.8 “We applied purposive sampling for the selection of professionals. First, we selected professionals from regions in the Netherlands with high and low surgery rates [11, 12] as SDM has been shown to lead to lower surgery rates [13] and we thus would obtain both barriers and facilitators. In addition, we selected professionals working in hospital care in such a way to ensure diversity of hospital type (general hospitals, university medical centers and private clinics).”

8. **Additional information qualitative methods**
Reviewer 1: Please describe the research team (reflexivity):
   a. Who conducted the interviews? If it was an author of the report, please identify the author (s) in the report. If not, then provide a description of the background of the interviewer, or any information on reasons and interests of the interviewer in the research topic
   b. What are the experiences and trainings of the researchers involved?
   c. What did the participant know about the researchers (personal goals, reasons for doing the research)
Please clarify if the participants provided feedback on the findings, and if they did not, please state it clearly in the report.

We added the following information to the method section:

a-b-c:

p.8 “Interviews were conducted by one of two trained interviewers (SH and MW). Both interviewers have a master’s degree in health sciences. Their education included training in the conduct of interviews and focus groups. The interviewers had no involvement in the care of the patients and the participants had no personal background information on the interviewers.

Feedback:

p.11 “Participants did not receive feedback on the findings.”

9. Data analysis

Reviewer 1: As the authors have well characterised participants, it would be interesting to cross participants’ characteristics with perceptions of barriers and facilitators to implementing SDM. For example: Is age predictive of perception of some barriers? This type of analysis might be useful to personalise an intervention based on individual characteristics.

Reviewer 2: The analysis appears to include both a quantitative and qualitative component. Thus, there is a counting of the barriers and facilitators identified by both professionals and patients. The limitations of this should be considered and discussed. Frequency of mention has limitations in telling us about the relative importance of perceived barriers and facilitators and arguably even less about their capacity to be addressed. Indeed, the authors conclude with the statement that “we cannot determine which barriers and facilitators are the most important….. for implementation of SDM”. A more in-depth analysis of the findings might enhance this element of interpretation.

Regarding the suggestion to cross participants’ characteristics with perceptions of barriers and facilitators to implementing SDM, it is likely that the number of patients (n=22) may be too small to cross participants’ characteristics with perceptions of barriers and facilitators, especially because barriers or facilitators were mostly mentioned by only a proportion of participants. In our subsequent study, in which we aim to rank the importance of the identified barriers and facilitators we will take participants’ characteristics into account in order to be able to personalize an intervention to improve the implementation of SDM. We agree with reviewer 2 that frequency of mention has some limitations and therefore we provided tables with all barriers and facilitators mentioned by professionals and patients. However, this paper would be too long if we described all barriers and facilitators in the text of the paper. Therefore we chose to report the most frequently mentioned. In reaction to the comment made by reviewer 2, we decided to pay more attention to this limitation in the discussion.
p.29 “A second limitation is the use of quantitative counts within this qualitative study. We reported all barriers and facilitators in tables, but only discuss those barriers and facilitators reported in at least eight interviews or two focus groups, without suggesting that other barriers or facilitators are less important. Based on this study we cannot determine which barriers and facilitators are the most important barriers or facilitators for implementation of SDM, or how these are associated with characteristics of patients and professionals. Therefore, in the next phase of this study we will carry out a quantitative study to determine which barriers and facilitators mentioned in this qualitative study are the most important for the adoption of SDM.”

10. In-depth analysis

Reviewer 2: Indeed, the authors conclude with the statement that “we cannot determine which barriers and facilitators are the most important….. for implementation of SDM”. A more in-depth analysis of the findings might enhance this element of interpretation.

Reviewer 2: We would encourage the authors to provide a more in-depth analysis of their study findings with regard to how barriers/facilitators play out in different contexts and their possible inter-relationships. At present the analysis feels superficial. It would help to more clearly articulate the objectives and use these to guide the analysis (e.g. sometimes the focus of SDM in multi-disciplinary settings is lost and sometimes it is questionable as to whether the barriers or facilitators are directly relevant to SDM, for example, more explanation is required as to why waiting times address SDM rather than access).

We think we do pay attention to the impact of different contexts, by showing clear differences in barriers / facilitators found between primary care and hospital care. By giving quotes that illustrate these differences, we aimed to provide the more in-depth analysis of how the different contexts played out. For examples see pages 14, 19 and 22.

We aimed to explore barriers / facilitators to implement SDM in sciatica care, of which some are related to the multidisciplinary care but not all of them. This is the reason why the focus is not only on multidisciplinary settings throughout the manuscript.

Some barriers or facilitators may not be directly related to SDM, but turned out to be indirectly related in practice.

p.22 “These waiting lists influences the decision making process, for example some surgeons make the decision (surgery yes or no) based on the length of the waiting list. As a result, the patient is not presented with all options and thus will not have a shared decision. Other professionals already put the patient on the waiting list, just in case if the patient should need a referral in the future, and thereby patients miss a step (referral or not) in the decision making process. This referral is not a shared decision, but the decision of the involved professional.”
The goal of this study was an exploration of all barriers and facilitators involved in SDM in sciatica care. In the next phase of this study we will carry out a quantitative study (survey) to determine which barriers and facilitators mentioned in this qualitative study are the most important for the adoption of SDM. We added this information to the discussion section and we also added a clear objective to the introduction:

p.7 “Therefore, the objective of this study is to explore and categorize all barriers and facilitators associated with the implementation of SDM in sciatica care perceived by professionals and patients.”

11. Range of perspectives
Reviewer 2: The use of response rates for each professional group is incongruous in this qualitative study; much more important is that there is an appropriate range of perspectives.

Reviewer 2: How does inclusion of tables 1&2 contribute to interpretation of this “qualitative” study? The tables in the appendices provide richer information, but this would be further enhanced by better use of quotes to illustrate the findings (see above).

Reviewer 2 suggests that the use of response rates is incongruous in our study, we think that the use of response rates shows the willingness of professionals to participate to our study and their (lack of) interests in SDM. We agree with reviewer 2 that indeed it is important that there is an appropriate range of perspectives in a qualitative study, and we think we accomplished this by interviewing professionals of different disciplines, ages and years of work experience. We think that tables 1&2 show these variety in characteristics of the interviewed professionals and patients in focus groups and we emphasize the importance in the discussion:

p.29 “The participating professionals covered a wide range with respect to age, experience and number of patients treated annually, so that we can expect that most barriers and facilitators will have been captured by this group.”

p.29 “Participants of the focus groups differed in age, gender and ethnicity. They were also treated in different practices and (types of) hospitals, which ensures variety in perceived barriers and facilitators.”

Furthermore, reviewer 2 suggest to further enhance the tables in the appendices by better use of quotes to illustrate the findings. However, we chose to limit the data in the tables and to mention quotations in the text (see also point 13. Quotations) to keep the tables clear. Concerning the use of quotations see point 13. Quotations.

12. Table 3
Reviewer 1: The table 3 is an excellent summary of the findings, and it is necessary. However, it has to be improved to really be useful: the names given to the themes are not self-explanatory. I suggest
using a longer description if needed, or a definition. Also, each factor (e.g. waiting list) should be framed differently whether they are a barrier (e.g. long waiting list) or a facilitator (e.g. short waiting list). The way this is presently presented, it seems that waiting lists are facilitators of SDM implementation.

We agree with the reviewer that we have to make the themes more self-explanatory. Therefore, we changed the themes in the table (and text) to make them more self-explanatory and we framed differently whether they are a barrier of facilitator.

13. Quotations
Reviewer 2: The use of quotations is parsimonious and therefore appears to be selective. It would be far better for the reader to see a range of quotes relevant to each of the key issues.

We expanded the number of quotes in such a way that each barrier/ facilitator mentioned at least 8 times during the interviews or in at least two focus groups is illustrated by a quotation in the revised version of our paper. We did not further expand the use of quotes to limit the paper to an acceptable length.

14. Comparison professionals and patients
Reviewer 2: Much more could be made of the comparison between the perspectives of professionals and patients. There appear to be some considerable differences in emphasis that merit further understanding. For example, professional findings are heavily dominated by barriers, and the only facilitators are under the heading of “individual professional”. In contrast, the findings from patients appear to be more balanced and (to a certain extent) richer. What might explain these differences?

We mention some differences between professionals and patients in the discussion:

p.25 “Professionals perceived most barriers at the level of the organizational context, and perceived all facilitators at the level of the individual professional. Patients on the other hand reported most barriers and facilitators at the level of the individual professional. It is possible that patients hold the professionals responsible for the care they receive, including the use of SDM, while any barriers on the organizational context that may be important are not visible for them. The professional on the other hand, is able to see and identify organizational factors as barriers from their perspective, but may also use it as excuse not having to do anything themselves. This underlines the importance of including both the patient and the professional perspective to identify all barriers for SDM implementation in sciatica.”

Furthermore, we added the following sentences to the discussion:
Furthermore, patients perceived more facilitators than professionals. This may be due to the fact that professionals have to find a way to integrate SDM during their consults and have to change their daily practice. Therefore they may perceive more barriers and less facilitators compared to patients.

15. Classification within themes/levels of the framework

Reviewer 1: The factor ‘time to implement SDM’ should not be classified under ‘tool’. Please use another name for this theme. I would suggest separating the factors under ‘tool’ into something like ‘situational factors’, ‘availability of tools to facilitate SDM’ and ‘strategies for patient-provider communication’.

Reviewer 2: The section on organisational context is less convincing than some of the others. Partly this is in the way it is written – is time a “tool”? Rather, it’s a resource. Conflicting information is also mentioned in this section. To what extent is that organisational and to what extent due to varying knowledge across professionals?

Reviewer 2: At times it is difficult to disentangle issues of knowledge, skills, and organisation. For example, on page 18, is the absence of clear criteria for referral and/or surgery a direct impact on shared decision making or rather a contributor to lack of knowledge?

We agree that time to implement SDM should not be classified under “tool”. Therefore, we changed the headings for the themes into “situational factors” and “availability of tools to facilitate SDM”. We think that these themes cover the barriers sufficient, and therefore we do not use “strategies for patient-provider communication”.

We agree with reviewer 2 that some of the barriers and facilitators can be classified within more than one theme, and themes can be related to each other. To classify barriers and facilitators, we had to make choices and therefore three researchers (LB, PM and PM) discussed and agreed on this classification. For example we classified conflicting information under organizational context, because it is a consequence of how sciatica care is organized (multidisciplinary) and thus part of the situational factors rather than a result of lack of knowledge alone. The absence of clear criteria for referral and/or surgery has direct impact on a shared decision, because professionals do not know in which situations they can refer patients and thus when to use SDM to present the different treatment options to patients. This is solely not because of a lack of knowledge, but because of the absence of clear criteria for example in guidelines. We added this explanation to the result section:

p.23 “For instance some professionals did not know when patients were eligible for surgery, and thus in which situations they can refer patients and offer patients different options for treatment and use SDM.”

16. Already using SDM

Reviewer 2: More might be made of the perspective that professionals think they are
 already using SDM. This is a common finding and an important barrier in itself.

Indeed we think this is a common finding and an important barrier in itself. We mention this in the result section:

p.14 “With respect to the definition of SDM many professionals thought they were using SDM. However, when discussing SDM they wondered whether they really met all the conditions (e.g. information provision of both treatments options, ask patient’s preferences) for a decision to be a shared decision.

OS3: “Which conditions do you have to meet before you can say this is decision that has been taken jointly? That is not clear to me.”

To emphasize this point more, we also discuss/ repeat this barrier in the discussion of the revised paper:

p.26 “We found barriers and facilitators corresponding with the literature among monodisciplinary settings (e.g. lack of applicability due to patient characteristics [14], insufficient provider training [29], lack of familiarity about SDM content [14], better patient adherence to treatment [30], motivation [14]). This suggests that barriers and facilitators in monodisciplinary care also apply to the multidisciplinary setting.”

However, based on the present qualitative study we cannot determine how important this barrier is. This will be determined in a subsequent study where we will rank the barriers and facilitators on importance, as outlined in the discussion.

17. Familiar with patient

Reviewer 2: It seems odd that “especially professionals in primary care...” Experienced difficulties when not familiar with the patient – isn’t this lack of familiarity likely to be greater with other professional groups?

We agree with the reviewer that this lack of familiarity is likely to be greater with professionals in hospital care since these professionals do not know most of their patients. However, they may be used to this lack of familiarity and do not perceive this as a barrier. In our study the lack of familiarity was mostly mentioned by professionals in primary care, who are familiar with some patients, but not with all patients. General practitioners said they have more and more patients in their practices, which makes it more difficult to really know their patients than before when practices were smaller. Therefore it may be more difficult for them to use SDM with patients they are not familiar with, and therefore mentioned it as a barrier. We added this information to the result section.

p.14 “This may be due to the fact that professionals in primary care in general have a better knowledge about the background and personal situation of most of their patients compared to professionals in hospital care. General practitioners said they have more and more patients in their practices, which makes it more difficult to really know their patients than before when practices were smaller. As a
consequence they experience more difficulties with applying SDM to patients they do not know, while professionals in hospital care are used to deal with this lack of unfamiliarity.”

18. Wrong diagnosis
Reviewer 2: The issue of not receiving the right information, because of the wrong diagnosis (page 13) is not central to the issue of SDM in sciatica.

In our study patients mentioned several times that they felt that they did not make a shared decision because they initially got the wrong diagnosis. Because of this comment, we understand that we have to clarify the relation between wrong diagnosis and SDM in sciatica in our paper:

P.16 “Due to this wrong diagnosis patients were suffering from sciatica for a long period of time. It sometimes took weeks or even months before they got the right diagnosis. As a result the first 6-8 weeks of conservative therapy had already passed, and they were referred to hospital care for surgery without giving information about the care trajectory or alternative treatment options. The issue of not receiving SDM was thus a consequence of getting the wrong diagnosis.”

19. Too articulate
Reviewer 2: The idea of patients being “too articulate” as a barrier is worthy of more discussion. Is this really about being articulate? Isn’t it more about being demanding and or assertive?

With articulate patients we meant to say that the patients are too demanding according to the professionals. Therefore, we changed the term “articulate patients” into “demanding patients” in our paper.

20. No mention of litigation
Reviewer 2: We are surprised that there is no mention of litigation and its potential impact here. Sciatica and low back pain are notoriously linked to personal injury claims which can impact upon decision-making. Was this not mentioned at all by respondents?

This was not mentioned by the respondents and therefore not reported in the paper. Our Dutch setting may differ from other settings, both for health care and for employment conditions. Personal injury claims are not really common in the Netherlands. This may be due to the obligatory health insurance, availability of social securities, and the lack of contingency fees in the Netherlands [10].
21. Lack of evidence surgery vs nonsurgery

Reviewer 2: We are also surprised that the issue of uncertainty in the effectiveness literature was not mentioned. There is very little in the way of randomized controlled trial evidence comparing surgery with nonsurgical interventions.

We agree with the reviewer that the performed RCT’s comparing (early) surgery with conservative treatments are low quality because of the fact that only one trial investigated this properly [11,12]. This only emphasizes the need of SDM since there is no proven best treatment option, and therefore there is no reason to make a physician-dominated decision. We added this uncertainty in the effectiveness to the introduction.

p. 4 “A recent randomised controlled trial has shown no significant difference in clinical outcome between conservative treatment and (early) surgery after 1 of 2 years [4-6]. This trial concludes that surgery is more costly but also leads to more rapid relief from the pain, whereas conservative treatment is less invasive [7] but takes patients longer to recover, so that surgery is cost-effective [8]. However this is the only trial that investigated this properly. Other trials are of low quality [4-7]. Because the literature is not convincing about the best treatment option, the choice can be considered preference sensitive [9].”

22. Discussion of economic factors

Reviewer 2: The discussion of economic factors is fascinating. More could be made of this, with more discussion about professional decision-making related to perverse incentives.

We extended this subject in the discussion.

p. 27 “Some surgeons reported that they were stimulated by the hospital to perform surgeries, for example by reserving operating-rooms for sciatica surgeries, or even receive a small amount of money for every sciatica surgery they perform. In addition, many private clinics arise, because of this reimbursement. These (perverse) incentives may influence the decision making in favour of surgery.”

23. Elements of discussion within the results

Reviewer 2: There are elements of discussion within the results e.g. reference to the range of characteristics and their influence on capture of barriers and facilitators.

We checked the results section for elements of discussion and moved these sentences to the discussion section.

e.g. Results: p.11 “The participating professionals covered a wide range with respect to age, experience and number of patients treated annually.”
Discussion: “The participating professionals covered a wide range with respect to age, experience and number of patients treated annually, so that we can expect that most barriers and facilitators will have been captured by this group.”

24. Implications in discussion
   Reviewer 2: It will also be helpful in the discussion to begin to explore what the implications are for changing practice or developing interventions to increase SDM.

We agree with the reviewer that it is interesting to explore what implications are for changing practice or developing interventions to increase SDM. However, before we can explore these implications, additional research is needed. First it has to be determined which barriers and facilitators are the most important barriers or facilitators for implementation of SDM. This next step will be carried out in a subsequent quantitative study. Thereafter, we can describe the implications for changing practice or developing interventions to increase SDM. After all, you first have to know which barriers are most important in everyday practice for professionals and patients.

25. References
   Reviewer 2: The references need checking. For example, reference 19 is not up-to-date.

We updated the references.

We look forward to your reaction, on behalf of all authors,

Yours sincerely,

Leti van Bodegom-Vos

Reference List


