

## PEER REVIEW HISTORY

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### ARTICLE DETAILS

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| <b>TITLE (PROVISIONAL)</b> | Gender Differences within the Barriers to Smoking Cessation and the Preferences for Interventions in Primary Care. a Qualitative Study using Focus Groups in The Hague, The Netherlands |
| <b>AUTHORS</b>             | Dieleman, Lieke; van Peet, Petra; Vos, Hedwig   |

### VERSION 1 – REVIEW

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| <b>REVIEWER</b>        | R. Kathryn McHugh, PhD<br>McLean Hospital, USA |
| <b>REVIEW RETURNED</b> | 22-Sep-2020                                    |

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| <b>GENERAL COMMENTS</b> | <p>This paper reports the results of a small qualitative study of smokers in the Netherlands examining barriers to smoking cessation and preferences for treatment. The paper is well-written and addressed an important topic. Strengths include the consideration of gender differences and the rich, qualitative data. Nonetheless, there are several significant weaknesses in presentation and study design that limit the impact of the paper. Specific questions and comments are listed below.</p> <ol style="list-style-type: none"><li>1. There are several places in the introduction where findings described from prior literature are oversimplified. For example, page 4 of the proof “men smoking because of the stimulating effect....women smoke out of habit or to regulate their mood.” The research says that on average women smoke more often for mood regulation and on average men smoke more often for reward. This doesn’t mean that men do not smoke for mood and vice versa. Greater caution in the interpretation of these sex differences throughout would strengthen the paper.</li><li>2. The introduction would benefit from more discussion of prior studies of barriers to smoking cessation and how this study is unique/adds to this literature. There is a large literature in this area—including a number of studies of sex differences, yet little of this literature is mention.</li><li>3. How is “data saturation” defined?</li><li>4. Although I understand the justification for gender-specific groups, this could confound the results given the focus on sex differences. The addition of a mixed-gender group would have been a helpful control. Consider listing as a limitation.</li><li>5. More detail on the methods used for qualitative analysis would strengthen the paper.</li><li>6. Trying to map these results onto gender-specific interventions seems like a bit of a stretch for the data. Consider removing or further justifying this analysis. If you do retain this in the paper, consider reframing as men and women may have greater preference for these interventions rather than trying to speculate about efficacy. That would be more consistent with the information gathered.</li></ol> |
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|  | 7. Similarly, consider focusing the discussion more on the study results rather than speculation about treatment efficacy. The connection to treatment efficacy is the most speculative part of the paper, yet it is the greatest focus in the discussion. |
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| <b>REVIEWER</b>        | HELENA FERREIRA MOURA<br>Federal University of Rio Grande do Sul (UFRGS)<br>Brazil |
| <b>REVIEW RETURNED</b> | 25-Sep-2020  |

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|-------------------------|--|
| <b>GENERAL COMMENTS</b> | <p>This is an interesting study as it does not focus on pharmacological response to treatment but suggest that there are other gender differences that may require specific interventions. The findings that women need more social support and positivity as opposed to more coercive measures for men may be of clinical relevance. However, these findings are poorly discussed and there are some methodological issues that need to be clarified. If the authors could make such corrections, then this article would be ready for publication.</p> <p><b>Background:</b><br/>Perhaps describing tobacco attributed morbidity in women (to highlight their motivation to quit) is unnecessary, especially because it ends with the conclusion that “relatively few women are aware of these risks”.</p> <p>In “This study aimed to provide insight into the gender-specific barriers to smoking cessation, and to generate recommendations for interventions in primary care tailored to female smokers”, the term “intervention” may be too broad. For example, is it a pharmacological intervention? A psychosocial intervention?</p> <p><b>Methods:</b><br/>Please, clearly describe whether the interviewers were men or women. It is difficult to assume based on the authors’ names How was nicotine addiction assessed? Were men and women matched to addiction severity? How did the authors control for other differences between men and women that are known to affect tobacco cessation treatment (i.e. psychiatric comorbidity)? The rationale for not requiring motivation to quit smoking as an inclusion criterion should be clarified<br/>The description of the Intervention Ladder would be better placed in the methods section instead of in the results section<br/>“Opportunities for interventions were structured in the concept of a Smokers Support Group”: this description would be better placed in the methods section instead of in the discussion section</p> <p><b>Results:</b><br/>Figure2 is well designed and very useful to understand the results</p> <p><b>Discussion:</b><br/>The authors do not highlight the importance of their findings. Discussing whether health care services are prepared to deal with the gender differences described in the results would be of clinical importance. For example, because men and women had opposite results in the Intervention Ladder, should they be treated in separate psychotherapy groups? Can some of these differences be resolved with pharmacological interventions?</p> |
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## VERSION 1 – AUTHOR RESPONSE

Point-by-point response:

Reviewer: 1

1. Comment: This paper reports the results of a small qualitative study of smokers in the Netherlands examining barriers to smoking cessation and preferences for treatment. The paper is well-written and addressed an important topic. Strengths include the consideration of gender differences and the rich, qualitative data. Nonetheless, there are several significant weaknesses in presentation and study design that limit the impact of the paper. Specific questions and comments are listed below.

Reply: Thank you for acknowledging the strengths of our research. We believe these comments have helped us to improve the impact of our paper.

2. Comment: There are several places in the introduction where findings described from prior literature are oversimplified. For example, page 4 of the proof “men smoking because of the stimulating effect...women smoke out of habit or to regulate their mood.” The research says that on average women smoke more often for mood regulation and on average men smoke more often for reward. This doesn’t mean that men do not smoke for mood and vice versa. Greater caution in the interpretation of these sex differences throughout would strengthen the paper.

Reply: We acknowledge this, and we adjusted this throughout our paper.

Changes in the manuscript:

Background (paragraph 2, page 3), text changed: This may seem contradictory, but women seem to experience higher mental and behavioural dependency, which might persist longer after cessation than physical nicotine dependency.

Background (paragraph 4, page 3), text changed: Regarding smoking behaviour, men seem to smoke more often because of the stimulating effects of nicotine, while on average, women smoke more often out of habit or to regulate their mood. In addition, smoking in men seems to be more related to food, alcohol, and smokers in the vicinity, compared to stress and craving in women. Discussion, Comparison with literature (paragraph 2, page 10), text changed: External factors on the other hand seem to form greater barriers in men. This reflects earlier research, which shows that men on average benefit more from social control when quitting smoking. Recent research shows that women might benefit from quitting together with a partner, although older literature reports controversial results. When looking further into the role of the environment, research shows that disapproval of others and the feeling of shame can increase motivation to quit.

3. Comment: The introduction would benefit from more discussion of prior studies of barriers to smoking cessation and how this study is unique/adds to this literature. There is a large literature in this area—including a number of studies of sex differences, yet little of this literature is mentioned.

Reply: We expanded our section on gender differences within the barriers to smoking cessation with additional literature on this subject. We also added some literature about the current knowledge on gender-specific treatment, to highlight how this study contributes to this literature.

Change(s) in the manuscript:

Background (paragraph 4, page 3-4), text changed: Moreover, gender differences seem to exist within the barriers smokers perceive towards cessation, and these might contribute to the varying

success rates. Regarding smoking behaviour, men seem to smoke more often because of the stimulating effects of nicotine, while on average, women smoke more often out of habit or to regulate their mood. In addition, smoking in men seems to be more related to food, alcohol, and smokers in the vicinity, compared to stress and craving in women. Although barriers related to stress and mood regulation and social factors seem to be common in both women and men, women on average seem to be affected by a greater number of barriers and distinct stress-related barriers. Other barriers that seem to be more prominent in women are sensory aspects, the lack of social support, Another barrier that seems more prominent in women is the and the fear of weight gain. Besides the previously mentioned role of sex hormones, mental health and personality patterns also seem to affect cessation and vary by gender. Pregnancy and parenthood on the other hand, seem to have a positive effect on cessation, especially in women.

Background (paragraph 5, page 4), text added: In spite of these disparities between women and men, current care is not yet adjusted to such gender differences. This raises the question whether a gender-specific approach is required and how this should be brought into practice. Smoking women seem to consult their general practitioner (GP) twice as often as smoking men, which makes the GP a suitable health care professional to assist women with quitting. Research shows that women are more likely to use recommended cessation resources such as nicotine patch, varenicline and Smokers' Helpline than men, and might benefit more from non-nicotine or behavioural interventions. Women-specific programs are limited and show inconsistent outcomes, but might help to reduce barriers to treatment entry. This study aimed to provide a deeper insight into the gender-specific barriers to smoking cessation and gender-specific preferences for interventions, and to generate recommendations for interventions in primary care tailored to female smokers in order to contribute to better aligned cessation care for women.

4. Comment: How is "data saturation" defined?

Reply: Data saturation was defined as the moment when no new information was obtained from the focus groups. We added this definition in our paper.

Change(s) in the manuscript:

Methods, Procedure (paragraph 1, page 4), text changed: When the earlier mentioned criteria for diversity were guaranteed and no new information was obtained from the focus groups, it was concluded that saturation was reached. An additional interview was conducted for final confirmation.

5. Comment: Although I understand the justification for gender-specific groups, this could confound the results given the focus on sex differences. The addition of a mixed-gender group would have been a helpful control. Consider listing as a limitation.

Reply: This is a good point. We added this in our limitations.

Change(s) in the manuscript:

Discussion, Strengths and limitations (paragraph 2, page 10), text added: Finally, we studied gender-specific focus groups which might confound the results given the focus on sex differences. A mixed-gender group as a control could have promoted the reliability of our study.

Strengths and limitations of this study (page 3, point 6), text added: A mixed-gender group was not included as a control, what could have promoted the reliability of this study.

6. Comment: More detail on the methods used for qualitative analysis would strengthen the paper.

Reply: We expanded this section to give a better view of our data analysis.

Sentences changed in manuscript:

Methods, Data analysis (page 5), text changed: Data was analysed thematically using an inductive approach. The transcripts obtained from the focus groups and interviews, were anonymised and coded independently by two researchers (HV and LD) to increase reliability. Both researchers freely

coded all relevant information for women and men separately, and themes were derived from the categorised codes for every main subject. The classification of codes was discussed by the researchers (HV, LD, and PvP), as well as the subsequent differences between women and men. after which codes were categorised. Compatible codes were grouped and discussed, and eventually five main themes could be identified.

7. Comment: Trying to map these results onto gender-specific interventions seems like a bit of a stretch for the data. Consider removing or further justifying this analysis. If you do retain this in the paper, consider reframing as men and women may have greater preference for these interventions rather than trying to speculate about efficacy. That would be more consistent with the information gathered.

Reply: This is a good point, and we have chosen to remove our concept for an intervention. We took your advice and focused more on the preferences for interventions, instead of mapping these on a gender-specific treatment option. We did include the option of a group intervention with attention to gender differences, as this was a clear wish among almost all participants.

Change(s) in the manuscript:

Results, Analysis (paragraph 1, page 8-9), text changed: An overview of the gender differences is shown in Figure 2. The advantages and disadvantages of smoking led to barriers that were experienced during cessation. This resulted in ideas and preferences on possible regarding interventions to overcome these barriers, which eventually could be combined in a concept for an intervention aimed at female smokers . Remarkable was that women seemed to experience more internal obstacles, such as stress and craving, compared to more external barriers in men, such as the social environment and alcohol. For women this resulted in a need for emotional support and positivity, and resistance towards coercive measures and judgement. For men support should be focused on social aspects, temptation, and rewards. Most participants, both women and men, indicated a preference for a group intervention tailored to these gender-specific barriers.

Results, Analysis (paragraph 2, page 9), text changed: Interventions further up the ladder ask for a stricter approach by the government, and may have a greater effect on seem to be favoured more by smoking men than women. Female smokers will probably benefit more from seem to prefer an intervention that enables lifestyle change, and meanwhile enhancing autonomy. This could be provided through a group intervention tailored to such gender differences. This is in line with the concept of a Smokers Support Group, placing it low on the Intervention Ladder. Whereas men possibly benefit from interventions higher up the ladder Contrary to men, restrictions and (dis-) incentives imposed by the government might not have a positive effect on women.

Title (title page, page 1), text changed: Gender Differences within the Barriers to Smoking Cessation and Possible Interventions for Women the Preferences for Interventions in Primary Care; a Qualitative Study using Focus Groups in The Hague, The Netherlands.

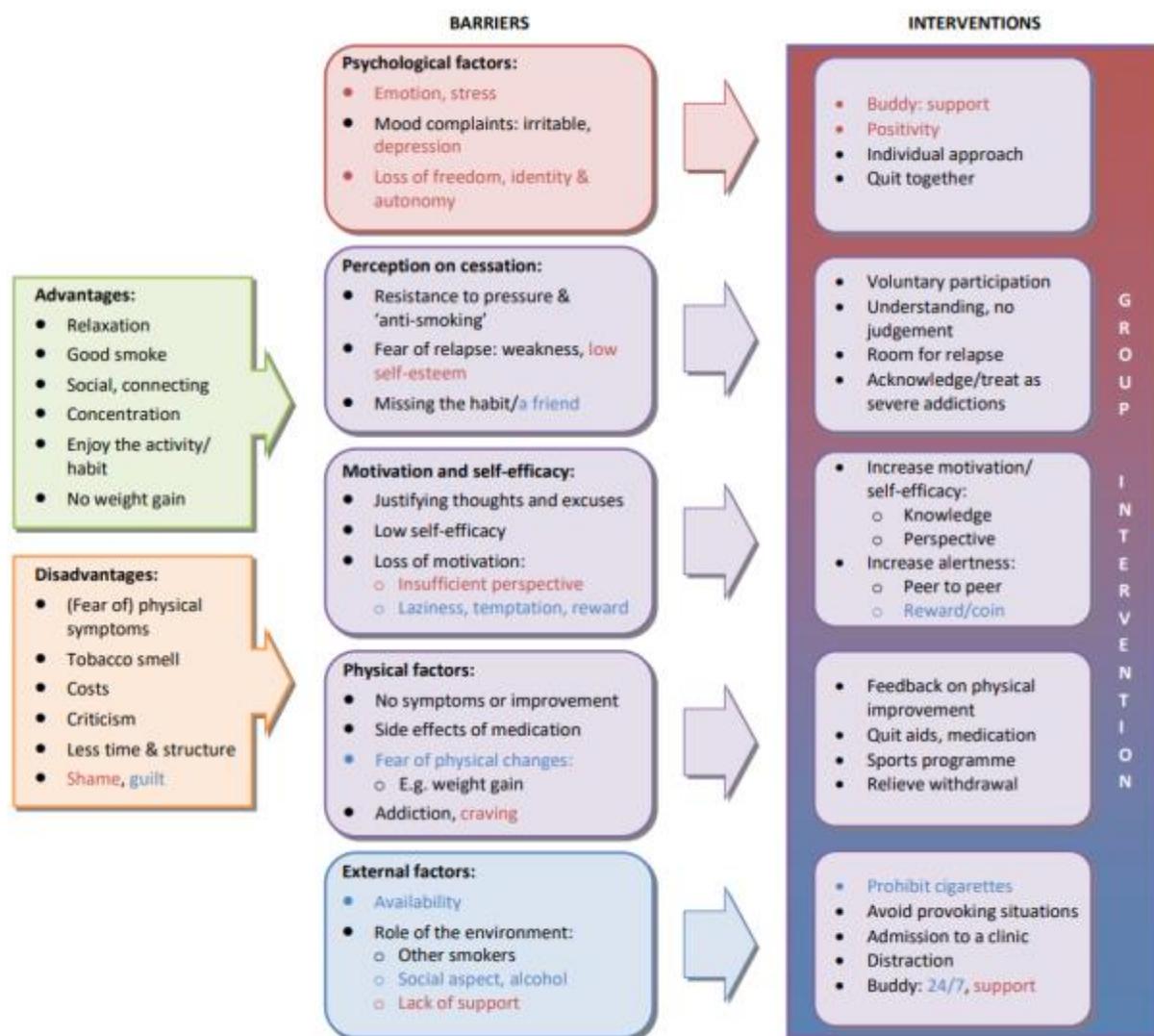
Abstract, Objectives (page 2), text changed: This research aimed to provide a deeper insight into the gender-specific barriers to smoking cessation and gender-specific preferences for interventions in primary care, in order to contribute to better aligned cessation care for women. and to generate recommendations for interventions in primary care tailored to female smokers.

Abstract, Results (page 2), text changed: The main barriers to smoking cessation in women were psychological factors, such as emotion and stress, compared to environmental factors in men. Women indicated they were in need of support and positivity, and felt resistance towards coercive measures. B both both women and men expressed the desire for assistance without pressure or judgement. An intervention combining these aspects could be a Smokers Support Group, aiming to optimise guidance for female smokers. Contrary to men, women were not drawn to restrictions and (dis-)incentives.

Abstract, Conclusion (page 2), text changed: When counselling smokers, in women the focus should be on perceived internal problems, as opposed to more external obstacles in men. A Smokers Support Group seems to be a suitable treatment option especially for severely addicted female smokers Contrary to men, female smokers seem to prefer non-coercive interventions, such as a

group intervention offering support and positivity. Nonetheless, male smokers might also be able to benefit, as they expressed similar needs. Future research should therefore explore the efficacy of gender-specific and mixed Smokers Support Groups. Future research should focus on these gender differences, and how they could improve treatment in primary care.

Strengths and limitations of this study (page 2, point 2), text changed: This study used the Intervention Ladder to classify possible gender-specific preferences for interventions by their degree of pressure.



Changes in Figures/Tables (Figure 2 + Table 2):

Figure 2 An overview of the results divided into five main themes. Left to right: the advantages and disadvantages of smoking led to barriers to cessation, which resulted in preferences for potential helpful interventions and ultimately in a new concept. Top to bottom: themes predominant in women (red) and themes predominant in men (blue).

Table 2 Classification of the interventions using the Intervention Ladder, categorised from least to most coercive measures, with themes predominant in women (red) and men (blue).

|   |  |   |
|---|--|---|
| 7 | Eliminate choice                                 | <ul style="list-style-type: none"> <li>▪ Prohibit cigarettes</li> </ul>   |
| 6 | Restrict choice                                  | <ul style="list-style-type: none"> <li>▪ Reduce cigarette availability</li> <li>▪ Establish more smoke-free areas</li> </ul>  |
| 5 | Guide choice through disincentives               | <ul style="list-style-type: none"> <li>▪ Increase costs of cigarettes</li> </ul>  |
| 4 | Guide choice through incentives                  | <ul style="list-style-type: none"> <li>▪ Introduce rewards for quitting smoking</li> </ul>  |
| 3 | Guide choice through changing the default policy | <ul style="list-style-type: none"> <li>▪ Enable rehab clinic for smokers</li> </ul>   |
| 2 | Enable choice                                    | <ul style="list-style-type: none"> <li>▪ Participate in Smokers Support Group, offering: no judgement, room for relapse, voluntary approach, understanding, buddy-system, Participate in a group intervention, offering support and positivity</li> <li>▪ Provide feedback on physical improvement, e.g. sports programme</li> <li>▪ Relieve withdrawal, e.g. quit aids/medication</li> </ul> |
| 1 | Provide information                              | <ul style="list-style-type: none"> <li>▪ Increase knowledge about smoking and addiction</li> </ul>  |
| 0 | Do nothing or monitor the current situation      | <ul style="list-style-type: none"> <li>▪ Quit without help</li> </ul>   |

8. Comment: Similarly, consider focusing the discussion more on the study results rather than speculation about treatment efficacy. The connection to treatment efficacy is the most speculative part of the paper, yet it is the greatest focus in the discussion.

Reply: Similarly to point 6, we removed this from our paper, and tried to focus more on our results. We believe this makes our paper more to the point, so thank you for the advice.

Change(s) in the manuscript:

Discussion, Summary (paragraph 1, page 9), text changed: This qualitative study attempted to identify gender-specific barriers to smoking cessation, as well as the subsequent ideas preferences for interventions in primary care for women. Five main themes emerged, whereby internal barriers, such as stress and craving, turned out to be more prominent in women, while external barriers, such as the high availability of cigarettes and social aspect of smoking, were more common in men. Women seemed to prefer a group intervention with attention to and support of internal obstacles, whereby judgement and coercion could be counterproductive. Opportunities for interventions were structured in the concept of a Smokers Support Group; a place where women could Besides talking about smoking in a positive manner and without judgement, women could offer each other support each other, and exchange knowledge and experiences. This Within a group intervention, women also seemed to desire group should also allow room for relapse and provide the support of a buddy with the same experience. Most participants wished to become a buddy themselves after achieving cessation, in order to maintain alertness.

Discussion, Summary (paragraph 2, page 9), text changed: It was remarkable that participants indicated the need for an intervention that would be similar to the focus group they were now participating in. Talking about smoking without the objective to quit was crucial. During the focus groups, a transformation was observed from initially unwilling to quit to considering quitting, as well as initially being determined to quit alone to developing the wish for a group. Talking about smoking casually and without pressure and judgement seems to be an important factor in a group intervention as described by participants Smokers Support Group. Moreover, the need for recognition and

treatment of smoking as a severe addiction appeared to be strong. An AA and rehabilitation clinic for smokers were hereby mentioned as examples.”

Discussion, Implications for future research (page 11), text removed: The concept of a Smokers Support Group is based on both gender-specific and shared aspects. Future research should therefore consider to explore the organisation of gender-specific as well as combined groups. Several women indicated they could benefit from mixed groups, but some were afraid they would be less able to express emotions in presence of men. As our results show, focusing on emotions is of great importance when supporting female smokers.

A Smokers Support Group seems to be a suitable new treatment option, especially for severely addicted female smokers. Within this target group, women expressed both the need and interest for such an intervention. Further research should investigate whether this intervention is effective and feasible in primary care. Finally, future research should focus on the role of gender on the efficacy of cessation care.

Reviewer: 2

1. Comment: This is an interesting study as it does not focus on pharmacological response to treatment but suggest that there are other gender differences that may require specific interventions. The findings that women need more social support and positivity as opposed to more coercive measures for men may be of clinical relevance. However, these findings are poorly discussed and there are some methodological issues that need to be clarified. If the authors could make such corrections, then this article would be ready for publication.

Reply: Thank you for acknowledging the relevance of our research. We believe these valuable comments listed below have helped us to improve our paper.

2. Comment: Perhaps describing tobacco attributed morbidity in women (to highlight their motivation to quit) is unnecessary, especially because it ends with the conclusion that “relatively few women are aware of these risks”.

Reply: Although it is correct that these risks do not highlight women’s motivation to quit smoking, we do think this highlights the importance of improving cessation care for women. For this reason we have chosen to retain this part in the paper to motivate health care professionals to tailor their approach to women who quit smoking. We added this as an explanation.

Change(s) in the manuscript:

Background (paragraph 1, page 3), text changed: Although relatively few women are aware of these risks, these risks highlight the importance of improving cessation success rates in female smokers in particular.

3. Comment: In “This study aimed to provide insight into the gender-specific barriers to smoking cessation, and to generate recommendations for interventions in primary care tailored to female smokers”, the term “intervention” may be too broad. For example, is it a pharmacological intervention? A psychosocial intervention?

Reply: We agree that the term “intervention” may be too broad. We have changed this part of our paper in response to the comment of reviewer 1 that the part about giving recommendations on a gender-specific intervention might be too speculative. We tried to focus more on the preferences for interventions, and changed this throughout the paper. Since participants were free to mention any type of intervention or help they preferred, the term “intervention” cannot be made more specific at this point.

Change(s) in the manuscript:

Background (paragraph 5, page 4), text changed: This study aimed to provide a deeper insight into the gender-specific barriers to smoking cessation and gender-specific preferences for interventions, and to generate recommendations for interventions in primary care tailored to female smokers in order to contribute to better aligned cessation care for women.

4. Comment: Please, clearly describe whether the interviewers were men or women. It is difficult to assume based on the authors' names.

Reply: Thank you for your comment, we did not yet mention this explicitly in our paper and added this to the manuscript.

Change(s) in the manuscript:

Methods, Focus groups (paragraph 2, page 5), text added: Under the guidance of a moderator (PvP), a GP experienced in leading focus groups, participants were asked to exchange ideas about these subjects. The two researchers (HV and LD) were present during the focus groups to take field notes. The moderator and researchers are all female.

5. Comment: How was nicotine addiction assessed?

Reply: One of our criteria for diversity was 'experience with quitting' assessed by the number of quit attempts. Because participants did not remember the exact number of quit attempts, we could not express this in numbers. We did conclude that our study population consisted of severely addicted smokers, by their overall high number of quit attempts and long duration of smoking.

Change(s) in the manuscript:

Methods, Procedure (paragraph 1, page 4), text added: General practices and participants were selected by means of purposeful sampling. Criteria for diversity were age, educational level as a proxy for socioeconomic status, and experience with quitting assessed by the number of attempts. Results, Sample (page 5), text changed: The exact number of quit attempts turned out to be non-quantifiable, as most participants did not remember the exact number. However, based on the duration of smoking and the estimated overall large number of quit attempts to quit among participants, we concluded that most participants included in our study were severely addicted smokers.

6. Comment: Were men and women matched to addiction severity?

Reply: Although we planned to match men and women to addiction severity, it proved to be difficult to put this into practice. Since both men and women did not remember the exact number of quit attempts, the addiction severity was non-quantifiable. We added this to our limitations.

Change(s) in the manuscript:

Discussion, Strengths and limitations (paragraph 2, page 10), text added: In addition, the study group appeared to be not fully representative for smokers in the Dutch population in terms of age and educational level. Moreover, the number of quit attempts turned out to be non-quantifiable in both women and men, impairing us to match participants to addiction severity. Therefore our results may not be applicable to all smokers.

7. Comment: How did the authors control for other differences between men and women that are known to affect tobacco cessation treatment (i.e. psychiatric comorbidity)?

Reply: This is an interesting and relevant point and wish to motivate why we hesitate to mention this (as a limitation) in our paper. We did not control for such differences in our paper, as there are many factors known to affect smoking cessation, such as mental health, physical health, substance use and smoking relatives. Since we did not exclude people other than the exclusion criteria mentioned (age 18 and above and sufficient command of the Dutch language) we assume that these variables are most likely equally distributed over both genders.

8. Comment: The rationale for not requiring motivation to quit smoking as an inclusion criterion should be clarified.

Reply: We did not include this as an inclusion criterion, since the barriers participants perceived towards actually wanting to quit smoking were subject of investigation. We explained this more clearly in the paper.

Change(s) in the manuscript:

Methods, Population (page 4), text added: Willingness to actually quit smoking was not a requirement, since the barriers participants perceived towards actually wanting to quit smoking were subject of investigation.

9. Comment: The description of the Intervention Ladder would be better placed in the methods section instead of in the results section.

Reply: Thank you for this suggestion. We added a description of the Intervention Ladder in the methods section.

Change(s) in the manuscript:

Methods, Data analysis (page 5), text added: The Intervention Ladder, which organizes ways to promote public health from least to most coercive, was used to classify interventions from least to most coercive measures.

10. Comment: "Opportunities for interventions were structured in the concept of a Smokers Support Group": this description would be better placed in the methods section instead of in the discussion section.

Reply: We removed the concept of a Smokers Support Group from the paper for reasons described in our respond to remark 6 of reviewer 1. The only intervention we maintained was the option of a group intervention.

11. Comment: Figure2 is well designed and very useful to understand the results.

Reply: Thank you for this compliment.

12. Comment: The authors do not highlight the importance of their findings. Discussing whether health care services are prepared to deal with the gender differences described in the results would be of clinical importance. For example, because men and women had opposite results in the Intervention Ladder, should they be treated in separate psychotherapy groups? Can some of these differences be resolved with pharmacological interventions?

Reply: This is an accurate point. We added a section on clinical implications in our discussion section, in which we also highlight the importance of our findings.

Change(s) in the manuscript:

Discussion, Clinical implications (page 10-11), text added: Our findings contribute to improving our understanding of the role of gender differences in cessation care, and thereby opening the door to a health care better aligned to these gender disparities. Group interventions adjusted to gender-specific barriers and preferences might form a feasible option. Within this study group of severely addicted smokers, both the need for and interest in such an intervention were expressed. Although women and men seemed to prefer interventions at different ends of the Intervention Ladder, they also showed some similar interests. For example, both women and men seemed to prefer a group intervention over pharmacotherapy. This raises the question whether separate treatment is needed. Several women indicated they could benefit from the presence of men, but some were afraid they would be less able to express emotions. Yet, this seems to be an area of attention when supporting women with cessation. This knowledge might also help clinicians in their daily practice, as they can be attentive to such gender differences when counselling smokers.

Discussion, Implications for future research (page 11), text added: Further exploration of gender-specific barriers and preferences is needed. Additionally, future research should investigate if attention to these gender differences could improve treatment in primary care, and how gender-specific treatment could be implemented. The necessity of separate over mixed-gender treatment should also be explored.

Strengths and limitations of this study (page 2, point 3), text changed: This study provides more insight into severely addicted smokers, and gives recommendations for adjusting treatment in clinical setting an appropriate intervention.

## VERSION 2 – REVIEW

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|-------------------------|---|
| <b>REVIEWER</b>         | R. Kathryn McHugh, PhD<br>McLean Hospital, USA  |
| <b>REVIEW RETURNED</b>  | 30-Nov-2020   |
| <b>GENERAL COMMENTS</b> | The authors have been highly responsive to prior review. One small remaining point:<br><br>I don't see the limitations paragraph in the discussion (only the bullet points after the abstract). Please add a limitations section. |

## VERSION 2 – AUTHOR RESPONSE

We were pleased to hear that you have recommended publication for our paper entitled "Gender Differences within the Barriers to Smoking Cessation and the Preferences for Interventions in Primary Care". You discovered that the limitations paragraph in the discussion had disappeared altogether. This was not our intention. Thank you for noticing. You will find in our manuscript that we added the limitations section as follows: The strength of this study is the use of focus groups, comparing women to men. This helps to develop a better understanding of gender differences in smoking cessation and thereby to better align interventions in primary care. We used the Intervention Ladder to classify these ways of promoting public health by the degree of coercion needed. Another strength of this study is the fact that we can provide advice for a specific group of smokers for which current treatment options seem to be too limited, namely severely addicted smokers. As it turned out, they were most willing to participate in the focus groups. A possible limitation to our research is the fact that some additional individual interviews had to be conducted among men, as men seemed less willing or able to participate. In addition, the study group appeared to be not fully representative for smokers in the Dutch population in terms of age and educational level. Moreover, the number of quit attempts turned out to be non-quantifiable in both women and men, impairing us to match participants to addiction severity. Therefore our results may not be applicable to all smokers. Finally, we studied gender-specific focus groups which might confound the results given the focus on sex differences. A mixed-gender group as a control could have promoted the reliability of our study.