

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Tobacco addiction and smoking cessation in Austrian migrants: A cross-sectional study
<b>AUTHORS</b>	Urban, Matthias; Burghuber, Otto; Dereci, Canan; Aydogan, Masite; Selimovic, Eldin; Catic, Selmir; Funk, Georg-Christian

### VERSION 1 - REVIEW

<b>REVIEWER</b>	Joseph DiFranza University of Massachusetts Medical School, USA
<b>REVIEW RETURNED</b>	05-Oct-2014

<b>GENERAL COMMENTS</b>	<p>This is an interesting study that provides important new information that will be helpful in planning public health interventions. The entire manuscript would benefit from editing in collaboration with someone who is a native English speaker. In many places the word selection is slightly off, so the authors' intent is not communicated clearly. In several places more detail is needed to make the paper more clear. Overall, the science is good and the data are interesting, it is just the presentation that needs to be strengthened. My comments relate to language, grammar and clarity.</p> <p><b>Abstract</b></p> <p>The abstract is not clear. "Migrants had a higher willingness to quit but also more previous cessation trials than ___ smokers." Something is missing. Migrants were less often allocated to counseling... What does this mean? Why are the values for the FTND whole numbers? Please provide the actual value and standard deviation.</p> <p><b>Introduction</b></p> <p>There are many grammatical errors and many inappropriate commas before every reference.</p> <p>"Male Turkish subjects amounted to 54%" - what does this mean? What does "allocated to cessation programs" mean? Allocated means assigned. Are smokers assigned to programs in Austria? The introduction describes this as a prospective study but the methods say it is cross-sectional.</p> <p>What does Austria as center of live mean? I think this is a typo for life.</p> <p>Please describe the recruitment methods in much more detail. Did you approach people in public places because they were smoking? Did you approach everyone and ask if they smoked? What language were they approached in? Were there different language versions of the survey?</p> <p>Up to page 6 I assumed that you were studying smokers who were born in other countries and migrated to Austria as adults. On page 6 it appears that you are talking about people who were born in Austria but raised by parents who were born in other countries, that</p>
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	<p>is, you are studying the adult children of immigrants. We call these second generation. This needs to be clear throughout the paper including the title and abstract. Migration means that the person has moved. If they were born in Austria they do not have a migration background, they are the offspring of immigrants.</p> <p>What does it mean that the investigators orally sorted through questionnaires?</p> <p>What makes this a prospective data analysis?</p> <p>Results</p> <p>The methods refer to the Fagerstrom test for cigarette dependence, but the results refer to the FTND.</p> <p>Please provide the values for the mean FTND scores.</p> <p>Table 2 presents data on “known associated diseases” but I can’t figure out what these data represent. Surely 99% of participants do not have pulmonary disease, so this must be a health belief question.</p> <p>I can’t figure out what the authors mean by a trend toward smoking reduction.</p> <p>Figure 4 should indicate, “offered smoking cessation counseling” or something along those lines.</p> <p>Evidentially, should be evidently. Background should not be capitalized.</p> <p>Table 3. It isn’t clear whether the data here represent what they would like, or what they have already used.</p> <p>What does “appreciated auxiliary material” mean? Do you mean auxiliary methods? In general, the tables need to be made clearer in regard to the actual questions asked. For example, “Who assist in quitting” does that mean who would you like to assist you, or who has assisted you in the past?</p> <p>After I read the article and went on to the questionnaire, these things became clearer, but the reader should not have to refer to the online materials to understand the paper and each table and figure. Some of the problems may come from translating the questionnaire into English as the terms you use in the paper are not the terms commonly used in the English literature.</p> <p>Instead of “appreciated” you might use “preferred”</p> <p>Instead of auxiliary materials you might use “cessation methods”</p> <p>Instead of “allocated to counseling” you might say “offered counseling” or “provided counseling.”</p> <p>Allocation means that people are assigned to something without having any choice. This is the opposite of what you intend to say as you are asking people about their preferences. You need to correct this throughout the paper, including figures and tables.</p> <p>I don’t understand the statement that there is no legal basis for tobacco prevention. Do you mean that the government has not taken action?</p> <p>The term “key determinants,” might be replaced with “important features.”</p>
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<b>REVIEWER</b>	Larissa J. Maier Swiss Research Institute for Public Health and Addiction (ISGF), an associated institute of the University of Zurich Zurich, Switzerland (CHE)
<b>REVIEW RETURNED</b>	22-Feb-2015

<b>GENERAL COMMENTS</b>	This study is interesting and important. It suggests that tobacco addiction and problematic tobacco use is more prevalent among
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Turkish and Bosnian migrants in Austria compared to Austrians without migration background. Moreover, the proportion of smokers who are willing to quit is higher among the migrant population compared to Austrian smokers without migration background. However, Austrian programs for smoking cessation address the general population only and the migrant population with problematic tobacco use seemed not to be reached by those interventions. The authors conclude that their findings support the need for tailored smoking cessation interventions for smokers with different cultural backgrounds. This study is the first Austrian study considering the problematic of nonexistent smoking cessation and has important implications for health promotion among individuals with migration background in Austria.

Nevertheless, there are concerns as follows:

#### GENERAL COMMENTS

The paper should urgently be proofread by a native speaker. Furthermore, I recommend that the authors use consistent terms to describe the study groups (e.g., Turkish migrants, male Turkish migrant smokers, smokers with Turkish migration background).

#### TITLE

The authors might consider thoroughly revising the title of their manuscript.

1. I would suggest the authors to delete the second half of the title "A prospective cross-sectional study with 420 participants". This part has no additional information except of the number of participants in the study.
2. According to the journal guidelines only the research question and study design but no results should be reported in the title. The sample size is already an implicit result that can be reported in the abstract, but not in the title.
3. In addition, the term "prospective" does not describe the study design appropriately. Prospective studies usually refer to prospective cohort studies where the same individuals are followed-up over time. Cross-sectional studies measure parameters at a single point of time and should generally not be labeled prospective when exposure and outcome are measured at the same time. Later in the text the study design is described as a cohort study (p. 5, line 11) what is also false because you have only one point of data collection and you are not following-up a cohort. Therefore, it is also nonsense to choose the term "baseline" characteristics in the first paragraph of the results; you might rather refer to "participant" characteristics.
4. A final point to consider when comparing the title with published articles in BMJ Open is that the study design appears, for the most part, at the end of titles. The authors might even have recognized this, what would at least explain the repeated reporting of the study design in the present title. However, the title of a journal article is very important, and a probably more suitable suggestion would, therefore, be: "Tobacco addiction and smoking cessation in Austrian migrants: A cross-sectional study".

#### ABSTRACT

1. The authors might exclude the term "prospective" when referring to the study design in the abstract for the reasons mentioned in the comment on the title.
2. Please check the punctuation for the statements in the abstract.
3. When referring to the participants you refer to participants and

subjects in the same paragraph. You might consider referring to “migrants” or “smokers” or “migrant smokers” (e.g., 140 Bosnian migrant smokers) to describe your participants more concisely. Moreover, I would suggest mentioning the nationality of the control group as well to differentiate better between the groups (e.g., 140 Austrian smokers without migration background). If you revise this part, please change the terms in the whole manuscript accordingly (page 5, line 20; page 6, line 22; page 11, line 25; etc.).

4. The additional section containing strengths and limitations of the study is a good summary but misses to clearly identify the strengths and weaknesses of your study. As mentioned in the instructions for authors, I would suggest using bullet points that relate specifically to the methods of your study. You have mentioned some important limitations, such as setting and the cross-sectional design at the end of the discussion already so you might refer to them here as well.

#### INTRODUCTION

The introduction section contains important information about studies that show increased tobacco use among the migrant population in Switzerland and in the Netherlands. For the reader it remains unclear, why you have chosen those examples (only).

1. Please provide references for the statements “Nicotine addiction can be treated effectively by means of counseling and auxiliary medication” (page 4, line 10/12) and “Smokers with migration background are prone to higher nicotine consumption.” (page 4, line 15)

2. Consider to replace “Turks residing in Switzerland” through “Turkish migrants in Switzerland”

3. Consider to use “male Turkish migrants” instead of “male Turkish subjects” and be clear that you compare them to “Swiss men” and not to “Swiss subjects” in general. Moreover, I would appreciate if you verify the numbers (54% vs. 34%) that you report in your introduction. The report that you cite (BAG, 2007) contains the GMM 2004 data on tobacco use prevalence and gender on page 26.

According to this figure, I would assume that 53% of male Turkish migrants and 37% of Swiss men were smokers. Furthermore, your study refers to daily smokers (inclusion criteria). Therefore, it might be useful to have a look at the prevalence of Swiss daily smokers in the Addiction Monitoring in Switzerland. Only every fifth Swiss men is a daily smoker (<http://www.suchtmonitoring.ch/de/1.html>).

#### METHODS

1. It is very unusual to list the inclusion and exclusion criteria with bullet points in a manuscript. The authors might consider reporting these criteria in fully written text form or as a enumeration (e.g., “Inclusion criteria were as follows: 1) xxx; 2) xxx; and 3) xxx .“)

2. When reporting the inclusion criteria you switch between migrants and Austrians. The last bullet point “Austria as the center of live with at least 6 months within the country” (p. 6, line 3) probably refers to the migrants again so I suggest placing this into a reasonable order.

3. Do all of the migrant participants interviewed have an Austrian citizenship? If yes, no changes needed. If not, please consider changing the grouping terms in the data collection section as you cannot call them “Austrians” then (p. 6, line 38/40).

4. Please consider changing the last sentence in the data collection section (page 6, line 47/49) to comprehensibly state that the participants were interviewed or that they filled out the questionnaire under supervision of the study authors.

5. Please provide a reference for the estimation of the sample size based on the Fagerstöm test (p. 7, line 34).

6. Is it common that the terms alpha and power are depicted in capital letters? (p. 7, line 38)

## RESULTS

1. The percent numbers of “heavy” smokers in the text are possibly wrong as these numbers (14%, 12%, and 7%) refer to the number of heavy smokers in table 1 while the percents are provided in the brackets. The order remains the same but the numbers should be changed (p. 9, line 31-34).

2. The authors mention trends in individual smoking behavior as they mention the proportion of study participants who increased the number of cigarettes smoked over time (p. 9, line 34-41). This information most likely refers to question 11 in the questionnaire. Since this information is not included in the table it is very difficult to understand for the reader. The authors might put into context these findings briefly and explain the background more clearly. It might be worth to include information about those who smoked constantly the same amount of cigarettes. Additionally, it might be interesting to know why tobacco use was increased among those who smoke more.

3. Consider to change “definitely” in “absolutely” (p. 10, line 47) to be concise with what you write in table 3 and the discussion text. You might also adapt figure 2 that displays the willingness to quit.

4. This figure 2 might be redundant as the numbers and percentages of the willingness to quit are already included in table 3. Please exclude one of them.

5. The same problem with figure 3a/3b: These results are redundant with the information in table 3. Please exclude those figures or the information in the table. I personally would prefer to have the information in the table only. If you, nevertheless, would decide to maintain the figures you might consider displaying the exact percentage numbers in the figure.

6. Table 1: Consider to change the title from “subject characteristics” to “participant characteristics”. Furthermore, please add the number of male participants per group and write the percentage in brackets (without the sign %).

7. Table 1: Please indicate that you use means and standard deviations when reporting age and years in school.

8. Table 2: Please consider changing “smoking addiction” into “tobacco addiction” to be concise with your title. This change might be necessary in other parts of the manuscript as well (e.g., page 13, line 7).

9. Tables 1-3: Please consider using the same headings for the three tables (use table 1 as example).

10. Tables 1-3 & text: Please decide whether you would like to use commas for reporting the percentages or not and revise it consistently (if yes, 15% = 15.0%).

11. Tables 1-3: Please decide whether you would like to report 4 numbers after the comma consistently or not.

12. Tables 1-3: Please consider changing “0 (0)” into “0”.

13. The authors might consider using  $p < 0.0001$  instead of  $p = 0.0000$  (p. 10, line 49) equally to the information in table 3. See also p.11 line 5/16.

14. In general, all numbers that are already given in tables should not appear also in the text to reduce redundancy. Please delete.

15. Is there a difference between German and mother tongue for Austrians without migration background? I know that there is a difference between German and German with Austrian dialect but

would those 29% of participants who prefer counseling in their mother tongue prefer the counseling in Austrian dialect or in a truly other language? Maybe you can explain this in the text because the official language in Austria is German and according to Wikipedia 98% of Austrian citizens speak German. Therefore it is surprising that one third would like to have the counseling rather in mother tongue than in German. Another possible explanation would be that some chose German and others chose mother tongue meaning German as well.

16. Were there any gender or age differences regarding tobacco addiction and smoking cessation in the three study groups? The authors might consider to perform some further analysis to find any gender and age (or socioeconomic) differences in the sample as they have introduced such differences in the introduction section based on findings of previous studies.

17. How did you decide about which information to report in the paper? I have wondered about the outcomes for, i.e., question number 12 – 19 in the questionnaire. Will you report those findings in a further paper or why did you decide not to include this information?

#### DISCUSSION

1. Are the data from the Austrian health survey 2006/07 the only data in Austria that reflect the prevalence of smoking among migrants in Austria? I would recommend the authors to use more recent data if available. If they argue that tailored interventions with regard to migrant smoking cessation are necessary they should most likely rely on recent data that shows that problematic smoking behavior is prevalent among migrants.

2. Please verify and rewrite the statement “had a 33.5 percent higher prevalence” (p. 13, line 29) as I could not find or calculate this number in the given report.

3. It would be interesting to discuss and to hypothesize why Austrian smokers were less willing to quit their tobacco use (p. 13, line 51-58).

4. Why is it a limitation that you did not account for ex-smokers in that study? As they already gave up their tobacco use they are not your target group anyway.

5. The cross-sectional design is in fact a limitation with regard to describing tobacco use and trends in using tobacco. But I do not understand why you add that a follow-up would have gone beyond your hypothesis. Do you mean that it was not necessary to have a follow-up to investigate whether migrants show a more problematic tobacco use behavior than Austrian participants? If yes, please clarify. The major limitation is the recruitment strategy because it could theoretically be a random effect that you have met Turkish migrants that scored higher in the Fagerström as the other two groups. Nevertheless, it was a good approach to tackle the problem of limited or non-available smoking cessation programs in Austria.

#### REFERENCES

1. The authors might have misunderstood the instructions how to cite references in the text: “Reference numbers in the text should be inserted immediately after punctuation (with no word spacing)—for example, [6] not [6]. This is the example to state that the references should be cited after punctuation and NOT that a comma before each reference is included, followed by punctuation. Please revise the references for the entire manuscript (e.g., xxxx. [1] Xxxx xxx x. [2]).

2. The references included in the paper are very sparse. Only four of

	<p>ten papers refer to peer reviewed literature while only two of them refer to studies published. Prevention of tobacco use and smoking cessation among migrant populations is a relatively new topic. Nevertheless, the recent literature contains interesting findings and discussions that are worth mentioning. Here are only a few recent studies on the topic that might be included in the introduction section and discussed at the end of the paper:</p> <ul style="list-style-type: none"> <li>- Aspinall &amp; Mitton (2014). Smoking prevalence and the changing risk profiles in the UK ethnic and migrant minority populations: implications for stop smoking services.</li> <li>- Liu et al. (2012). Adapting health promotion interventions to meet the needs of ethnic minority groups: mixed-methods evidence synthesis.</li> <li>- Bodenmann et al. (2005). Perception of the damaging effects of smoking, and brief cessation counselling by doctors A comparison between native Swiss and immigrants</li> <li>- Reske et al. (2009). Changes in smoking prevalence among first- and second-generation Turkish migrants in Germany – an analysis of the 2005 Microcensus</li> <li>- Reiss et al. (2014). How immigrants adapt their smoking behaviour: comparative analysis among Turkish immigrants in Germany and the Netherlands</li> </ul> <p>3. It might be an important strength of the paper to refer to more recently published data and new findings on smoking cessation in (Turkish) migrants. Therefore I would recommend adding further literature and comparing the literature of the papers mentioned under point 2.</p>
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### VERSION 1 – AUTHOR RESPONSE

Reviewer Name Joseph DiFranza

Institution and Country University of Massachusetts Medical School, USA

Please state any competing interests or state 'None declared': None declared

Reviewer's comment: This is an interesting study that provides important new information that will be helpful in planning public health interventions. The entire manuscript would benefit from editing in collaboration with someone who is a native English speaker. In many places the word selection is slightly off, so the authors' intent is not communicated clearly. In several places more detail is needed to make the paper more clear. Overall, the science is good and the data are interesting, it is just the presentation that needs to be strengthened. My comments relate to language, grammar and clarity. Authors' response: We have tried to substantially improve the quality of the paper in terms of grammar as well as wording. English native speakers were involved to strengthen the presentation of our data.

Abstract

Reviewer's comment: The abstract is not clear. "Migrants had a higher willingness to quit but also more previous cessation trials than \_\_\_ smokers." Something is missing.

Authors' response: The respective text passage was revised and the results were described in a more precise and intelligible manner.

Reviewer's comment: Migrants were less often allocated to counseling... What does this mean?

Authors' response: The term "allocated to" was replaced by "participated in".

Reviewer's comment: Why are the values for the FTND whole numbers? Please provide the actual

value and standard deviation.

Authors' response: The actual value and standard deviation was provided.

#### Introduction

Reviewer's comment: There are many grammatical errors and many inappropriate commas before every reference.

"Male Turkish subjects amounted to 54%" - what does this mean?

Authors' response: The respective text passage was revised.

Reviewer's comment: What does "allocated to cessation programs" mean? Allocated means assigned. Are smokers assigned to programs in Austria?

Authors' response: We replaced the term "Allocated to" by "participated in" as suggested by the reviewer.

Reviewer's comment: The introduction describes this as a prospective study but the methods say it is cross-sectional.

Authors' response: Thank you for pointing out this substantial error. The term "prospective study" was deleted from the entire manuscript.

Reviewer's comment: What does Austria as center of live mean? I think this is a typo for life.

Authors' response: The phrase "Austria as center of live" was replaced by "Living primarily in Austria".

Reviewer's comment: Please describe the recruitment methods in much more detail. Did you approach people in public places because they were smoking? Did you approach everyone and ask if they smoked? What language were they approached in? Were there different language versions of the survey?

Authors' response: Thank you for indicating the insufficient description of our recruitment methods. A more appropriate and detailed description was added.

Reviewer's comment: Up to page 6 I assumed that you were studying smokers who were born in other countries and migrated to Austria as adults. On page 6 it appears that you are talking about people who were born in Austria but raised by parents who were born in other countries, that is, you are studying the adult children of immigrants. We call these second generation. This needs to be clear throughout the paper including the title and abstract. Migration means that the person has moved. If they were born in Austria they do not have a migration background, they are the offspring of immigrants.

Authors' response: We extended the definition of "migrants" and added the precise definition of the terms "first" and "second generation migrants".

Reviewer's comment: What does it mean that the investigators orally sorted through questionnaires?

Authors' response: This ambiguous sentence was replaced by a more appropriate description of the data assessment.

Reviewer's comment: What makes this a prospective data analysis?

Authors' response: Here again, the incorrect term "prospective study" was deleted.

#### Results

Reviewer's comment: The methods refer to the Fagerstrom test for cigarette dependence, but the results refer to the FTND.

Please provide the values for the mean FTND scores.

Authors' response: Thank you for indicating the inconsistent wording. The term "Fagerström Test for Nicotine Dependence" is now used throughout the entire manuscript.



Reviewer's comment: Table 2 presents data on "known associated diseases" but I can't figure out what these data represent. Surely 99% of participants do not have pulmonary disease, so this must be a health belief question.

Authors' response: We fully agree with the reviewer. The labelling "known associated diseases" was replaced by "Awareness of tobacco-related diseases".

Reviewer's comment: I can't figure out what the authors mean by a trend toward smoking reduction.  
Authors' response: Following the instructions of the consulted native speakers the term "A trend toward smoking reduction" was replaced by "A tendency towards decreased cigarette consumption". We hope the adapted wording will increase the intelligibility of the text passage.

Reviewer's comment: Figure 4 should indicate, "offered smoking cessation counseling" or something along those lines.

Authors' response: The respective text passage was corrected in line with previous sections.

Reviewer's comment: Evidentially, should be evidently. Background should not be capitalized.

Authors' response: The respective text passage was corrected.

Reviewer's comment: Table 3. It isn't clear whether the data here represent what they would like, or what they have already used.

Authors' response: : In accordance with the consulted native speakers, Table 3. received a more precise labelling.

Reviewer's comment: What does "appreciated auxiliary material" mean? Do you mean auxiliary methods? In general, the tables need to be made clearer in regard to the actual questions asked. For example, "Who assist in quitting" does that mean who would you like to assist you, or who has assisted you in the past?

After I read the article and went on to the questionnaire, these things became clearer, but the reader should not have to refer to the online materials to understand the paper and each table and figure. Some of the problems may come from translating the questionnaire into English as the terms you use in the paper are not the terms commonly used in the English literature.

Instead of "appreciated" you might use "preferred"

Authors' response: The term "appreciated" was replaced by "preferred".

Reviewer's comment: Instead of auxiliary materials you might use "cessation methods"

Authors' response: : The term "auxiliary material was replaced by "cessation methods". Thank you for providing the correct terms from the English literature.

Reviewer's comment: Instead of "allocated to counseling" you might say "offered counseling" or "provided counseling."

Allocation means that people are assigned to something without having any choice. This is the opposite of what you intend to say as you are asking people about their preferences. You need to correct this throughout the paper, including figures and tables.

Authors' response: : The term "allocated to counseling" was replaced by "offered counseling" throughout the entire manuscript.

Reviewer's comment: I don't understand the statement that there is no legal basis for tobacco prevention. Do you mean that the government has not taken action?

Authors' response: As suspected, we meant that the government has not taken action so far. We corrected the sentence as suggested by the reviewer.

Reviewer's comment: The term "key determinants," might be replaced with "important features."  
Authors' response: The term "key determinants," might be replaced by "important features."

Reviewer Name Larissa J. Maier

Institution and Country Swiss Research Institute for Public Health and Addiction (ISGF), an associated institute of the University of Zurich

Zurich, Switzerland (CHE)

Please state any competing interests or state 'None declared': None declared

Please leave your comments for the authors below

Reviewer's comment: This study is interesting and important. It suggests that tobacco addiction and problematic tobacco use is more prevalent among Turkish and Bosnian migrants in Austria compared to Austrians without migration background. Moreover, the proportion of smokers who are willing to quit is higher among the migrant population compared to Austrian smokers without migration background. However, Austrian programs for smoking cessation address the general population only and the migrant population with problematic tobacco use seemed not to be reached by those interventions. The authors conclude that their findings support the need for tailored smoking cessation interventions for smokers with different cultural backgrounds. This study is the first Austrian study considering the problematic of nonexistent smoking cessation and has important implications for health promotion among individuals with migration background in Austria.

Nevertheless, there are concerns as follows:

#### GENERAL COMMENTS

The paper should urgently be proofread by a native speaker. Furthermore, I recommend that the authors use consistent terms to describe the study groups (e.g., Turkish migrants, male Turkish migrant smokers, smokers with Turkish migration background).

Authors' response: The respective wording was adapted throughout the entire manuscript, native speakers were consulted for proofreading and editing. We hope, that we achieved a substantial improvement of the manuscript following the reviewer's constructive criticism.

#### TITLE

Reviewer's comment: The authors might consider thoroughly revising the title of their manuscript.

1. I would suggest the authors to delete the second half of the title "A prospective cross-sectional study with 420 participants". This part has no additional information except of the number of participants in the study.
2. According to the journal guidelines only the research question and study design but no results should be reported in the title. The sample size is already an implicit result that can be reported in the abstract, but not in the title.
3. In addition, the term "prospective" does not describe the study design appropriately. Prospective studies usually refer to prospective cohort studies where the same individuals are followed-up over time. Cross-sectional studies measure parameters at a single point of time and should generally not be labeled prospective when exposure and outcome are measured at the same time. Later in the text the study design is described as a cohort study (p. 5, line 11) what is also false because you have only one point of data collection and you are not following-up a cohort. Therefore, it is also nonsense to choose the term "baseline" characteristics in the first paragraph of the results; you might rather refer to "participant" characteristics.
4. A final point to consider when comparing the title with published articles in BMJ Open is that the study design appears, for the most part, at the end of titles. The authors might even have recognized this, what would at least explain the repeated reporting of the study design in the present title.

However, the title of a journal article is very important, and a probably more suitable suggestion would, therefore, be: "Tobacco addiction and smoking cessation in Austrian migrants: A cross-sectional study".

Authors' response: The title was changed to "Tobacco addiction and smoking cessation in Austrian migrants: A cross-sectional study" as recommended by the reviewer.

## ABSTRACT

Reviewer's comment: 1. The authors might exclude the term "prospective" when referring to the study design in the abstract for the reasons mentioned in the comment on the title.

Authors' response: The term "prospective" was deleted as mentioned before.

Reviewer's comment: 2. Please check the punctuation for the statements in the abstract.

Authors' response: Thank you for the advice. We corrected the punctuations.

Reviewer's comment: 3. When referring to the participants you refer to participants and subjects in the same paragraph. You might consider referring to "migrants" or "smokers" or "migrant smokers" (e.g., 140 Bosnian migrant smokers) to describe your participants more concisely. Moreover, I would suggest mentioning the nationality of the control group as well to differentiate better between the groups (e.g., 140 Austrian smokers without migration background). If you revise this part, please change the terms in the whole manuscript accordingly (page 5, line 20; page 6, line 22; page 11, line 25; etc.).

Authors' response: The study groups are now referred to as "Bosnian migrant smokers", "Turkish migrant smokers" and "Austrian smokers without migration background" throughout the manuscript.

Reviewer's comment: 4. The additional section containing strengths and limitations of the study is a good summary but misses to clearly identify the strengths and weaknesses of your study. As mentioned in the instructions for authors, I would suggest using bullet points that relate specifically to the methods of your study. You have mentioned some important limitations, such as setting and the cross-sectional design at the end of the discussion already so you might refer to them here as well.

Authors' response: The "strengths and limitations" sections was adapted according to the reviewer's advice.

## INTRODUCTION

Reviewer's comment: The introduction section contains important information about studies that show increased tobacco use among the migrant population in Switzerland and in the Netherlands. For the reader it remains unclear, why you have chosen those examples (only).

1. Please provide references for the statements "Nicotine addiction can be treated effectively by means of counseling and auxiliary medication" (page 4, line 10/12) and "Smokers with migration background are prone to higher nicotine consumption." (page 4, line 15)

Authors' response: We fully agree with the reviewer! Some representative references were added to the introduction section.

Reviewer's comment: 2. Consider to replace "Turks residing in Switzerland" through "Turkish migrants in Switzerland"

3. Consider to use "male Turkish migrants" instead of "male Turkish subjects" and be clear that you compare them to "Swiss men" and not to "Swiss subjects" in general.

Authors' response: Thank you for the helpful hint. The respective wording was corrected.

Reviewer's comment: Moreover, I would appreciate if you verify the numbers (54% vs. 34%) that you report in your introduction. The report that you cite (BAG, 2007) contains the GMM 2004 data on tobacco use prevalence and gender on page 26. According to this figure, I would assume that 53% of

male Turkish migrants and 37% of Swiss men were smokers. Furthermore, your study refers to daily smokers (inclusion criteria). Therefore, it might be useful to have a look at the prevalence of Swiss daily smokers in the Addiction Monitoring in Switzerland. Only every fifth Swiss men is a daily smoker (<http://www.suchtmonitoring.ch/de/1.html>).

Authors' response: Corresponding to the reviewer's comment, the numbers given were incorrect. Consequently, we inserted the correct numbers and adapted the respective text passage.

## METHODS

Reviewer's comment: 1. It is very unusual to list the inclusion and exclusion criteria with bullet points in a manuscript. The authors might consider reporting these criteria in fully written text form or as an enumeration (e.g., "Inclusion criteria were as follows: 1) xxx; 2) xxx; and 3) xxx .")

2. When reporting the inclusion criteria you switch between migrants and Austrians. The last bullet point "Austria as the center of live with at least 6 months within the country" (p. 6, line 3) probably refers to the migrants again so I suggest placing this into a reasonable order.

Authors' response: The list of inclusion/exclusion criteria was changed to an enumeration and included in the "study sample" passage for a more reasonable order and clearer arrangement of the text.

Reviewer's comment: 3. Do all of the migrant participants interviewed have an Austrian citizenship? If yes, no changes needed. If not, please consider changing the grouping terms in the data collection section as you cannot call them "Austrians" then (p. 6, line 38/40).

Authors' response: : In line with the previous two items this text passage was restructured and rewritten.

Reviewer's comment: 4. Please consider changing the last sentence in the data collection section (page 6, line 47/49) to comprehensibly state that the participants were interviewed or that they filled out the questionnaire under supervision of the study authors.

Authors' response: As correctly suggested by the reviewer the participants filled out the questionnaire under supervision of the study authors. A more appropriate description of the data acquisition process was added.

Reviewer's comment: 5. Please provide a reference for the estimation of the sample size based on the Fagerstöm test (p. 7, line 34).

Authors' response: The respective reference was added.

Reviewer's comment: 6. Is it common that the terms alpha and power are depicted in capital letters? (p. 7, line 38)

Authors' response: The words were changed to lower case letters.

## RESULTS

Reviewer's comment: 1. The percent numbers of "heavy" smokers in the text are possibly wrong as these numbers (14%, 12%, and 7%) refer to the number of heavy smokers in table 1 while the percents are provided in the brackets. The order remains the same but the numbers should be changed (p. 9, line 31-34).

Authors' response: Thank you for the correction, the numbers were in deed wrong! We inserted the correct numbers as suggested.

Reviewer's comment: 2. The authors mention trends in individual smoking behavior as they mention the proportion of study participants who increased the number of cigarettes smoked over time (p. 9, line 34-41). This information most likely refers to question 11 in the questionnaire. Since this information is not included in the table it is very difficult to understand for the reader. The authors

might put into context these findings briefly and explain the background more clearly. It might be worth to include information about those who smoked constantly the same amount of cigarettes. Additionally, it might be interesting to know why tobacco use was increased among those who smoke more.

Authors' response: The available answers from question 11 was from our point of view not complete enough to generate conclusions about the respective trends in smoking behaviour. Hence we had to leave out this interesting piece of information.

Reviewer's comment: 3. Consider to change "definitely" in "absolutely" (p. 10, line 47) to be concise with what you write in table 3 and the discussion text. You might also adapt figure 2 that displays the willingness to quit.

Authors' response: As the questionnaire uses the term "definitely", "absolutely" was replaced in the entire manuscript.

Reviewer's comment: 4. This figure 2 might be redundant as the numbers and percentages of the willingness to quit are already included in table 3. Please exclude one of them.

Authors' response: The redundant information was deleted from table 3., the exact numbers were displayed in figure 2.

Reviewer's comment: 5. The same problem with figure 3a/3b: These results are redundant with the information in table 3. Please exclude those figures or the information in the table. I personally would prefer to have the information in the table only. If you, nevertheless, would decide to maintain the figures you might consider displaying the exact percentage numbers in the figure.

Authors' response: : Figure 3a and 3b were deleted. We hope that the modifications made to the tables and figures now find the reviewer's approval.

Reviewer's comment: 6. Table 1: Consider to change the title from "subject characteristics" to "participant characteristics". Furthermore, please add the number of male participants per group and write the percentage in brackets (without the sign %).

Authors' response: The title was changed as desired and numbers and percentages were added in table 1.

Reviewer's comment: 7. Table 1: Please indicate that you use means and standard deviations when reporting age and years in school.

Authors' response: The respective information was provided as a footnote.

Reviewer's comment: 8. Table 2: Please consider changing "smoking addiction" into "tobacco addiction" to be concise with your title. This change might be necessary in other parts of the manuscript as well (e.g., page 13, line 7).

Authors' response: "smoking addiction" was changed into "tobacco addiction" in all parts of the manuscript.

Reviewer's comment: 9. Tables 1-3: Please consider using the same headings for the three tables (use table 1 as example).

Authors' response: We standardized the headings in all three tables according to the reviewers suggestion.

Reviewer's comment: 10. Tables 1-3 & text: Please decide whether you would like to use commas for reporting the percentages or not and revise it consistently (if yes, 15% = 15.0%).

Authors' response: A comma was added for one-digit numbers, one-digit numbers were left without.

Reviewer's comment: 11. Tables 1-3: Please decide whether you would like to report 4 numbers after

the comma consistently or not.

Authors' response: The p-values were limited to 3 decimal places consistently.

Reviewer's comment: 12. Tables 1-3: Please consider changing "0 (0)" into "0".

Authors' response: "0 (0)" was changed into "0" as desired by the reviewer

Reviewer's comment: 13. The authors might consider using  $p < 0.0001$  instead of  $p = 0.0000$  (p. 10, line 49) equally to the information in table 3. See also p.11 line 5/16.

Authors' response: Analogous to item 11., p-values were limited to 3 decimal places.

Reviewer's comment: 14. In general, all numbers that are already given in tables should not appear also in the text to reduce redundancy. Please delete.

Authors' response: Thank you for this basal information. All redundant information was deleted.

Reviewer's comment: 15. Is there a difference between German and mother tongue for Austrians without migration background? I know that there is a difference between German and German with Austrian dialect but would those 29% of participants who prefer counseling in their mother tongue prefer the counseling in Austrian dialect or in a truly other language? Maybe you can explain this in the text because the official language in Austria is German and according to Wikipedia 98% of Austrian citizens speak German. Therefore it is surprising that one third would like to have the counseling rather in mother tongue than in German. Another possible explanation would be that some chose German and others chose mother tongue meaning German as well.

Authors' response: As you supposed, some chose German and others chose mother tongue meaning German as well. This information was added at the respective part of the results section! Thank you for the helpful hint!

Reviewer's comment: 16. Were there any gender or age differences regarding tobacco addiction and smoking cessation in the three study groups? The authors might consider to perform some further analysis to find any gender and age (or socioeconomic) differences in the sample as they have introduced such differences in the introduction section based on findings of previous studies.

Authors' response: We fully agree that these data might help to further understand our observations. The results section was extended by additional analyses concerning age, gender and socioeconomic status.

Reviewer's comment: 17. How did you decide about which information to report in the paper? I have wondered about the outcomes for, i.e., question number 12 – 19 in the questionnaire. Will you report those findings in a further paper or why did you decide not to include this information?

Authors' response: Aiming at a concise and clear results section we decided not to include the mentioned information from questions 12-14 and 16-19.

## DISCUSSION

Reviewer's comment: 1. Are the data from the Austrian health survey 2006/07 the only data in Austria that reflect the prevalence of smoking among migrants in Austria? I would recommend the authors to use more recent data if available. If they argue that tailored interventions with regard to migrant smoking cessation are necessary they should most likely rely on recent data that shows that problematic smoking behavior is prevalent among migrants.

Authors' response: Unfortunately, the Austrian health survey, representing the most representative information in this field has not been updated since 2006/2007. Unfortunately, we are not aware of any equivalent data.

Reviewer's comment: 2. Please verify and rewrite the statement "had a 33.5 percent higher prevalence" (p. 13, line 29) as I could not find or calculate this number in the given report.

Authors' response: These incorrect numbers were replaced!

Reviewer's comment: 3. It would be interesting to discuss and to hypothesize why Austrian smokers were less willing to quit their tobacco use (p. 13, line 51-58).

Authors' response: We now addressed this issue in the respective text passage (without having any clarifying data for this observation).

Reviewer's comment: 4. Why is it a limitation that you did not account for ex-smokers in that study? As they already gave up their tobacco use they are not your target group anyway.

Authors' response: We fully agree, this item was deleted from the "limitations".

Reviewer's comment: 5. The cross-sectional design is in fact a limitation with regard to describing tobacco use and trends in using tobacco. But I do not understand why you add that a follow-up would have gone beyond your hypothesis. Do you mean that it was not necessary to have a follow-up to investigate whether migrants show a more problematic tobacco use behavior than Austrian participants? If yes, please clarify. The major limitation is the recruitment strategy because it could theoretically be a random effect that you have met Turkish migrants that scored higher in the Fagerström as the other two groups. Nevertheless, it was a good approach to tackle the problem of limited or non-available smoking cessation programs in Austria.

Authors' response: As we aimed for prompt availability of the data to claim rapid implementation of corresponding public health interventions we did not perform a follow-up. This information was added to the "strengths and limitations" bullet points following the abstract. We hope this explanation is traceable and reasonable for the reviewer.

## REFERENCES

Reviewer's comment: 1. The authors might have misunderstood the instructions how to cite references in the text: "Reference numbers in the text should be inserted immediately after punctuation (with no word spacing)—for example, [6] not [6]. This is the example to state that the references should be cited after punctuation and NOT that a comma before each reference is included, followed by punctuation. Please revise the references for the entire manuscript (e.g., xxxx. [1] Xxxx xxx x. [2]).

Authors' response: The references were corrected and adjusted by means of a reference managing software.

Reviewer's comment: 2. The references included in the paper are very sparse. Only four of ten papers refer to peer reviewed literature while only two of them refer to studies published. Prevention of tobacco use and smoking cessation among migrant populations is a relatively new topic. Nevertheless, the recent literature contains interesting findings and discussions that are worth mentioning. Here are only a few recent studies on the topic that might be included in the introduction section and discussed at the end of the paper:

- Aspinall & Mitton (2014). Smoking prevalence and the changing risk profiles in the UK ethnic and migrant minority populations: implications for stop smoking services.
- Liu et al. (2012). Adapting health promotion interventions to meet the needs of ethnic minority groups: mixed-methods evidence synthesis.
- Bodenmann et al. (2005). Perception of the damaging effects of smoking, and brief cessation counselling by doctors A comparison between native Swiss and immigrants
- Reske et al. (2009). Changes in smoking prevalence among first- and second-generation Turkish migrants in Germany – an analysis of the 2005 Microcensus
- Reiss et al. (2014). How immigrants adapt their smoking behaviour: comparative analysis among Turkish immigrants in Germany and the Netherlands

3. It might be an important strength of the paper to refer to more recently published data and new findings on smoking cessation in (Turkish) migrants. Therefore I would recommend adding further

literature and comparing the literature of the papers mentioned under point 2.

Authors' response: Thank you very much for suggesting these valuable references, we included them into the introduction as well as the discussion section!

### VERSION 2 – REVIEW

<b>REVIEWER</b>	Joseph DiFranza University of Massachusetts Medical School
<b>REVIEW RETURNED</b>	14-Apr-2015

<b>GENERAL COMMENTS</b>	This revision reads very well.
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<b>REVIEWER</b>	Larissa J. Maier Swiss Research Institute for Public Health and Addiction (ISGF) Zurich, Switzerland
<b>REVIEW RETURNED</b>	19-Apr-2015

<b>GENERAL COMMENTS</b>	<p>The manuscript has significantly improved, and I suggest only minor revisions. The authors can address the revisions without the need for me to review the manuscript again.</p> <ol style="list-style-type: none"><li>1) There is a spelling mistake in the title that needs urgent revision: "Austiran" instead of "Austrian".</li><li>2) The objective in the abstract is not yet clear. The authors wrote "However, cessation strategies are rarely adjusted based upon migration background. We aimed to determine if smoking behavior depends on migration background and to describe adjusted cessation strategies." First, I would suggest specifying that you talk about "smoking" cessation in the first sentence. Second, it might be more reasonable to ask "whether smoking behavior and preferences for smoking cessation programs differ between Austrian smokers and Austrian migrant smokers." It is important that you are more concise with the aim of the study taking into consideration the results and conclusions that you present in your abstract.</li><li>3) The first point reporting the major strength of your study refers to "Austrian smokers". However, the authors might probably want to refer to "Austrian migrant smokers" here.</li><li>4) The authors might still improve the section that describes the study sample (page 6). Inclusion criteria 3 and 4 can be reported together as they all refer to the same variable (cultural background). Moreover, the Austrian smokers should not be referred to as a control group because you have not conducted an intervention study. The reporting of group differences does not legitimate to call them control group. Reference group would be the better choice if you would like to specify the groups further, although you would not need to. In summary, the inclusion criteria will rather be Austrian, Turkish, or Bosnian nationality (or background, or ethnic origin as chosen in the figures). That they currently live in Austria (for at least 6 months) will be clear considering the next criteria listed.</li><li>5) When describing the current employment of study participants in table 1, you have chosen numbers with decimal commas when reporting the number (n). I would suggest removing the decimals to avoid confusion with the percentage reported in the brackets. The same problem occurs once in table 2 (7.0 Austrian p. with daily use of 31 cigarettes or more). And again in table 3 when reporting the</li></ol>
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	<p>cessation strategies used.</p> <p>6) You should be consistent with the n (%) in all tables. I would suggest reporting the n as a whole number without comma and the percents with one decimal throughout the tables in the manuscript. Do not forget to add the missing “zero”-decimals to be consistent &gt;&gt; e.g., 25 (67.0).</p> <p>7) And finally one general note. You have often chosen the term “adjusted” smoking cessation programs. Only twice you refer to “tailored” interventions. I think that the term “tailored” is more common when referring to prevention and intervention strategies for a specific group of interest. “Adjustment” reminds me more on a statistical procedure or on dose adjustment in therapy, but might be not be best here. The authors might decide themselves whether they would like to adapt this suggestion throughout the manuscript or not.</p> <p>The reviewer also provided a marked copy with detailed comments. Please contact the publisher for full information about it.</p>
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### VERSION 2 – AUTHOR RESPONSE

Reviewer's comment: 1) There is a spelling mistake in the title that needs urgent revision: “Austiran” instead of “Austrian”.

Author's response: The term in the title was corrected.

Reviewer's comment: 2) The objective in the abstract is not yet clear. The authors wrote “However, cessation strategies are rarely adjusted based upon migration background. We aimed to determine if smoking behavior depends on migration background and to describe adjusted cessation strategies.” First, I would suggest specifying that you talk about “smoking” cessation in the first sentence. Second, it might be more reasonable to ask “whether smoking behavior and preferences for smoking cessation programs differ between Austrian smokers and Austrian migrant smokers.” It is important that you are more concise with the aim of the study taking into consideration the results and conclusions that you present in your abstract.

Author's response: The term “smoking” was added to the first sentence. The description of the study aims was adapted as desired by the reviewer.

Reviewer's comment: 3) The first point reporting the major strength of your study refers to “Austrian smokers”. However, the authors might probably want to refer to “Austrian migrant smokers” here.

Author's response: The mentioned wording was completed.

Reviewers's comment: 4) The authors might still improve the section that describes the study sample (page 6). Inclusion criteria 3 and 4 can be reported together as they all refer to the same variable (cultural background). Moreover, the Austrian smokers should not be referred to as a control group because you have not conducted an intervention study. The reporting of group differences does not legitimate to call them control group. Reference group would be the better choice if you would like to specify the groups further, although you would not need to. In summary, the inclusion criteria will rather be Austrian, Turkish, or Bosnian nationality (or background, or ethnic origin as chosen in the figures). That they currently live in Austria (for at least 6 months) will be clear considering the next criteria listed.

Author's response: The list of inclusion criteria was changed according to the reviewer's comments.

Reviewer's comment: 5) When describing the current employment of study participants in table 1, you have chosen numbers with decimal commas when reporting the number (n). I would suggest removing the decimals to avoid confusion with the percentage reported in the brackets. The same problem occurs once in table 2 (7.0 Austrian p. with daily use of 31 cigarettes or more). And again in

table 3 when reporting the cessation strategies used.

6) You should be consistent with the n (%) in all tables. I would suggest reporting the n as a whole number without comma and the percents with one decimal throughout the tables in the manuscript. Do not forget to add the missing “zero”-decimals to be consistent >> e.g., 25 (67.0).

Author's response: The description of numbers and percentages was adapted consistently in all tables as mentioned in comments 5) and 6).

Reviewer's comment: 7) And finally one general note. You have often chosen the term “adjusted” smoking cessation programs. Only twice you refer to “tailored” interventions. I think that the term “tailored” is more common when referring to prevention and intervention strategies for a specific group of interest. “Adjustment” reminds me more on a statistical procedure or on dose adjustment in therapy, but might be not be best here. The authors might decide themselves whether they would like to adapt this suggestion throughout the manuscript or not.

Author's response: The term "adjusted" was replaced by "tailored" throughout the entire manuscript.