Author's response to reviews

Title: Community Pharmacists' Involvement in Smoking Cessation: Implementation of the National Smoking Cessation Guideline in Finland

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Author's response to reviews: see over
Dear Editors,

Thank you for sending the referees’ comments on our manuscript titled “Community Pharmacists’ Involvement in Smoking Cessation: Implementation of the National Smoking Cessation Guideline in Finland” that was submitted to BMC Public Health (Manuscript ID: 1125310934384686). We are grateful for the valuable comments received and we have taken them all into account in the current revised version of the manuscript. The changes are marked in the current manuscript with a yellow highlight color. We have numbered the revisions and marked them according to the initials of the referee. Hope the revisions made have improved specificity and generality of the findings and their discussion.

Comments of reviewer: Dr. Christine Paul (cited later as CP)

CP 1: It would be useful to cite some of the relevant literature supporting the view that involving pharmacy staff will increase cessation rates among smokers. (minor essential revisions)

Answer: Thank you for this valuable comment. To provide further evidence supporting the fact that pharmacists’ participation in SC will increase SC rates, we have added the following sentences in the Background section (page 4, paragraph 2):

*Community pharmacists’ role in SC has been widely studied and according to the systematic reviews conducted, their participation in SC may increase cessation rates [20-21].*

*Still, community pharmacists could extent their participation in SC by several alternative actions (Supplementary Table 1s) [8,23-26]*
CP2 : Currently the Finnish guideline recommendation for multi-disciplinary care is cited as the primary justification for the study. It appears that the guideline is not directly focussed on pharmacists. It would also be helpful to clarify exactly what the guideline says pharmacists should do. (minor essential revisions)

Answer: We thank for this good comment. We have added a supplementary table (Table 2s) which covers all information about community pharmacists’ tasks required by the SC Guideline (direct translation). The key points of the tasks are given in the text (page 8), which has been revised according to Referee CP’s comment number 9. The current text is as follows (Please see last paragraph at page 8):

The SC Guideline [7] recommends community pharmacists to ensure sufficient and rational use of SC medication and to support non-pharmacological SC [7]. This means that pharmacists are expected to assess individual customer’s level of addiction to plan the treatment and its follow-up accordingly. They are also expected to recommend the use of non-pharmacological SC aids, such as written materials or internet portals. In our survey this was measured by a set of questions assessing the frequency of recommending Guideline- based pharmacological and non-pharmacological SC treatment options to the smoking pharmacy customers (Table 4TK2).

CP3 : The two context paragraphs are very helpful, but perhaps may be more appropriate to the background section (major compulsory revisions, methods)

Answer : Thank you for this suggestion. We have moved these paragraphs to the Background section of the manuscript, following the referee’s advice. Please see pages 5 and 6.

CP 4: The sampling frame and process needs to be clarified. Table 1 indicates that the target population is 5053, while the text quotes a total of 2291 pharmacists. It may be that the 2291 is ’every second pharmacist?’ . The process of sampling is unclear in that we are told that there was a ‘random...sample of every second’ pharmacy. Does this mean it was not random at all, but alternating? The way in which the two groups (AFP & FPS) were combined is not clear either. (compulsory revisions)

Answer: Thank you for pointing out this crucial methodological issue. The 2291 respondents we sent the survey instrument formed 45% of all the pharmacists working in community pharmacies in Finland at the time of the survey. However, like we mention in the manuscript (page 4, paragraph 1) “At the time of the survey these registers covered 100% of the pharmacy owners, and 93% of the staff pharmacists”. Because 7% of the pharmacists did not belong to any member register, we were not able to reach them. We agree that our sample is not a random sample: it was systematically drawn from the member registers by inviting systematically every second person from the register to the survey. However, selection of every second person from the member registers of the professional organizations was done randomly in that sense that all the members had an equal chance to be chosen. According to the Referee’s recommendation, we replaced the term randomly by a more suitable term systematically [1] on page 6 (last sentences in the last paragraph). The same replacement was done in the abstract.

Finnish pharmacy owners belong to the Association of Finnish Pharmacies (AFP). Staff pharmacists with a M.Sc. (Pharm) degree belong to either the Finnish Pharmacists’ Association
Finland pharmacy owners belong to the Association of Finnish Pharmacies (AFP). Staff pharmacists with a B.Sc (Pharm.) belong to the Finnish Pharmacists’ Association and staff pharmacists with a M.Sc. (Pharm.) degree belong to either the Finnish Pharmacists’ Association (FPA) (with 369 members at the time of the survey) or the Finnish Pharmacists’ Society (FPS) (with 379 members). Thus, the survey was sent to 185 M.Sc. members of FPA and to 190 M.Sc. members of FPS. For the statistical analysis all the received responses were combined.

CP 5: The analysis is clear but has a very strong focus on associations rather than actual practice. (compulsory, results)

Please, see our response to Referee CP’s comment number 8.

CP 6: No statistical analyses are provided to support the statement that the study sample is representative (Text p6 & Table 1)

Answer: Thank you for highlighting this statistical issue. We have tested the differences between the respondents and the target population by Chi Square testing. We added p-values to Table 1. According to the test, there are no statistically significant differences between the groups, with the exception of the respondents specialized in the treatment of asthma, diabetes and cardiovascular diseases. We have discussed this in Discussion section, page 15, last paragraph as follows.

There were no statistically significant differences between the respondent and target population with the following exception (Table 1). The pharmacists specialized in the treatment of asthma, diabetes or cardiovascular diseases, under the public health program of the AFP, responded more often than other pharmacists (see Methods, Context and study design, Table 1).

CP 7: It could be argued that the most striking findings are about the variable levels of implementation of particular items within the guidelines – almost 100% recommendation of nicotine gum regardless of guideline familiarity, yet less than 20% involvement in local multidisciplinary actions (which is a key element of the guidelines). This suggests that there is a lot of work needed in order to achieve the key aim of the guideline – to promote multidisciplinary care.

Answer: Thank you for this important notion. We agree that the multidisciplinary teamwork should be strengthened. There are several reasons for community pharmacists’ limited participation in multidisciplinary care. We have followed your advice and added this viewpoint to the Discussion section of the manuscript (on page 15, second paragraph) as follows:
Though the SC Guideline underlines the importance of local multidisciplinary collaboration, it proved to be a rare in our study. This finding is in accordance with earlier findings in Finland [46]. These findings suggest that there is a lot of work needed in order to achieve the key aim of the SC Guideline – to promote multidisciplinary care. It would be interesting to find out whether the situation is the same in other countries.

CP 8: Guideline familiarity is no doubt important, but it may be less important to care provision than other variables such as age and specialization. It might have been useful to conduct an analysis using guideline-based actions as the outcome variables, and include guideline familiarity alongside other background variables to estimate the relative impact of guideline familiarity on practice. (Discretionary Revisions)

Answer: Thank you for these valuable comments. We chose the familiarity with the Guideline as our main outcome measure after a long consideration. We considered it to be more reliable that the respondents report the level of familiarity than the actual implementation of the SC Guideline. Our study provides some evidence of the actual implementation, but this is based on respondents self-reports (Table 4, and page 12 in the text). A reliable implementation study would have required different kinds of research methods (eg. intervention studies or pseudo patron studies). We have discussed this matter in the end of the discussion section (page 17 paragraph 1), as follows:

Respondents’ familiarity with the SC Guideline was chosen to be our main outcome measure. We considered it to be more reliable for the respondents to assess their own familiarity with the Guideline than the actual level of implementation, which can be biased by limited ability to recall or by self-perceptions. In further studies, it might be useful to conduct an analysis using Guideline-based actions as the outcome variables and include Guideline familiarity alongside with other background variables to estimate the relative impact of Guideline familiarity on practice. However, the level of actual implementation can be more reliably assessed by population based intervention studies or pseudo patron studies.

To clarify the relationship between predictors and the actual implementation we have added the term familiarity to the title and the abstract of the manuscript.

The new title: Community Pharmacists’ Involvement in Smoking Cessation: Familiarity and Implementation of the National Smoking Cessation Guideline in Finland

CP 9: Expression needs some editorial support - eg ‘good scientific practice’ (p 6 para 2) seems to be more about ethical rather than ‘good’ practice?; the last two sentences of the first para on page 7 are hard to follow.

Answer: Thank you for this notification. We revised the sentence concerning the “good scientific practice” as follows (page 7, paragraph 3):

The study was conducted following scientific ethics [37].
The last two sentences of the first paragraph on page 7 are revised as follows. (See page 8, paragraph 3 in the current manuscript):

The SC Guideline [7] recommends community pharmacists to ensure sufficient and rational use of SC medication and to support non-pharmacological SC [7]. This means that pharmacists are expected to assess individual customer’s level of addiction to plan the treatment and its follow-up accordingly. They are also expected to recommend the use of non-pharmacological SC aids, such as written materials or internet portals. In our survey this was measured by a set of questions assessing the frequency of recommending Guideline-based pharmacological and non-pharmacological SC treatment options to the smoking pharmacy customers (Table 4).

CP 10: The table are quite cumbersome – they could be clarified and streamlined.

Answer: Thank you for this suggestion. We have drafted the tables according to general instructions for constructing a table in a scientific presentation. As the journal does not have any special instructions for constructing tables, we are looking forward to having guidance from the editorial office for revising tables, if necessary. We are happy to make any changes suggested by the editorial office.

Comments of reviewer: Dr. Maciej L Goniewicz (cited later as MLG)

MLG 1: In Methods, ‘Context and study design’, authors presented a context of Finnish healthcare system and community pharmacies. It is very crucial for this paper. However, there is a lack of information on patients’ attitudes and perception of pharmaceutical care in Finland. Do the patients refer to their pharmacist for counseling? How often? Do they perceive pharmacists as reliable health professionals? Citing any data on this topic would give a reader much wider context of the situation in Finland. If such data are missing, this limitation should be discussed. (Major compulsory revisions)

Answer: Thank you for this valuable comment. We have added further information about community pharmacists’ role in Finnish healthcare as suggested by the Referee. Please, see Background section on page 5, last paragraph and beginning of page 6:

Finnish community pharmacists have proactively developed professional services, particularly patient counseling on prescription and non-prescription medications [32]. A long-term strategic goal of the Association of Finnish Pharmacies (AFP; the association of pharmacy owners) has been to establish a network of specialized community pharmacists on major public health concerns coordinating local services for customers having asthma, diabetes or cardiovascular diseases [33]. These initiatives have been supported by authorities and there is evidence that they have been successful [32]. [TK9] The Finnish medicine users value the Finnish pharmacy system and pharmacists are appreciated among the three most commonly used and reliable
sources of medicines information in addition to physicians and patient information leaflets [34-35]. (page 5, paragraph 3)

Finnish Pharmacies, have actively supported community pharmacists’ involvement in SC and the implementation of the SC Guideline[TK10], e.g., by national training campaigns and counseling aid materials [36]. (page 6, first paragraph)

We took away the following description (from page 7, paragraph 3) reporting the special professional programs of AFP, while this reporting is now integrated to the description on page 5. The reference used (earlier number 36) has been cited in the text on page 6, number is now 33.

AFP has run special professional programs on asthma, diabetes and cardiovascular disease management since the late 1990s [36]. These programs have been coordinated as a part of the National public health programs in Finland. (now deleted)

MLG 2. In my opinion, more details should be given for the national SC Guideline. How it is organized? What are the critical components? How it is available to pharmacists? What ‘non-pharmacological SC treatment’ is recommended? All these information would be of special interest to readers from outside Finland. (major compulsory revisions)

Answer: Thank you for this good comment. We added further information on the SC Guideline on page 6, paragraphs 1&2 (see the text below).

The professional organizations, particularly the Association of Finnish Pharmacies (AFP; the association of pharmacy owners), have actively supported community pharmacists’ involvement in SC, and thus, the implementation of the SC Guideline[TK11], e.g., by national training campaigns and SC counseling aid materials [28]. (Paragraph 1)

The SC Guideline was developed by a multidisciplinary expert group and it is based on robust scientific evidence. It provides background information on tobacco and smoking as a health risk. Furthermore, the Guideline introduces a wide range of interventions found effective in SC, which are applicable in various health care settings. It’s recommendations are targeted to all health care professionals including community pharmacists (Supplementary Table 2s). The Guideline is distributed nationwide by free internet access along with online education supporting its implementation[TK12]. (paragraph 2)

All the Guideline-based non-pharmacological treatment options used in this study are presented in Table 4.
MLG 3. One of the limitations of the study is that it was done in 2006. It means it was done almost 4 years ago. Has tobacco control policy changed since that time in Finland? Have any law or regulation been implemented since 2006? Any other significant factors that might bias findings? For example, after 2006 a new prescription drug has become available. Could this fact influence the results? I encourage authors to discuss this particular limitation of the study.

Answer: Thank you for highlighting this issue. We have added an additional paragraph related to this in Discussion section, page 17, last paragraph as follows:

Our [TK13] survey was conducted in 2006 – 2007, i.e., about four years ago. Since then, control policy has changed in Finland supporting more smoke-free public areas, such as restaurants, workplaces and even municipalities. Also a new prescription medicine has been launched for SC in 2006. Despite these remarkable changes no follow-ups on effectiveness of SC or health care professionals practices has been recently conducted. It would be interesting to repeat this study to see whether any changes have taken place in this respect.

MLG 4. Although the study strictly refers to Finland, it would be good to know authors’ opinion about implementation of their findings outside their country. However, authors referred to some studies from European countries (UK ref. 5, Germany ref. 10), Australia (ref. 6), but they do not compare their findings. Do these findings differ? I and my colleges did a study on pharmacists’ role in smoking cessation in Poland that has been recently published. Some findings are very similar but I found some interesting differences. Specificity of particular findings to Finland (maybe because of unique healthcare system) and generality of other findings should be discussed in the paper.

Answer: Thank you for this comment. We added the following sentences in the Discussion of the study to make these comparisons more visible.

The reference from UK [5] is the Guideline itself, containing implementation strategy in various levels but does assess the actual level of implementation in the health care. To our knowledge there exists no publication assessing the level of implementation of this guideline. We have added the following sentences in which we compare the findings from References 6 and 10 (see pages 14 and 15) as follows:

According to a German survey among physicians, the association between SC training received and level of SC activeness might be linear [10(TK14)]. (page 14, paragraph 2)

Similarly, a survey among Australian physicians found a high rate of NRT recommendation, whereas behavioral or quitting advice or quit date setting were far rare [6]. (page 15, paragraph 2)
We have also added a supplementary table (Table 1s) to present different findings of studies related to pharmacists’ participation in SC. We added the following sentences in the Discussion section, in which we compare the findings between these studies presented in Supplementary Table 1s and the findings from our study (Pages 13, 14, 15):

According to a survey conducted among community pharmacists in Iowa in 2002, only 10% of the respondents were familiar with the US SC Guideline (Supplementary Table 1s) [2[TK15]3]. (page 13, paragraph 2)

Correspondingly, studies conducted among community pharmacists found the association between good professional self-esteem and current SC practice (Supplementary Table 1s) [8,23-26] (page 14, paragraph 2)

This is in line with [TK16]previous studies conducted among pharmacists (Supplementary Table 1s) [23-24]. Community pharmacists’ familiarity with the SC Guideline particularly influences their counseling activity with customers being extremely vulnerable for tobacco use (e.g. pregnant women and those who suffer from smoking-related diseases). (page 15, paragraph 3)

MLG 5. In Discussion section, first and second paragraphs; authors wrote that: “approximately half of the pharmacists were familiar with guideline implementation”. It is very positive message. But it also means that more than a half of pharmacists were unfamiliar with it. I encourage authors, based on the results presented in this paper, to discuss possible solutions to improve the SC guideline implementation among pharmacists in Finland. (Discretionary revisions)

Answer: Thank you for highlighting this issue. We have added to the Conclusion section (page 18) one sentence related the importance of our findings in supporting the implementation

Pharmacists’ good knowledge and self-esteem towards SC alongside with SC supportive in-house practices at pharmacy are in crucial role while supporting the implementation[TK18]. (page 18, paragraph 1)

Other revisions in the manuscript:

1) We have added the following eight new references and renumbered all the references accordingly.

The new references (in the numerical order as they appear in the manuscript)


32. Puumalainen I: Development of Instruments to Measure the Quality of Patient Counselling. Doctoral dissertation Faculty of Pharmacy, the University of Kuopio, 2005,


46. Sandström P, Leppänen A, Simonen O. Organisation and practices of tobacco cessation services. [In Finnish] Ministry of Social Affairs and Health 2009, 15

2) We have added the following information about Dr. Kirsi Pietilä’s participation in the national SC Guideline Working Group (Competing Interest section):

She belongs to the working group of the national SC Guideline

Reference used in the revision cover letter

We all look forward to your correspondence.

Yours sincerely,

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