Reviewer’s report

Title: Challenges in diagnosing dementia in patients with a migrant background - A cross-sectional study among German general practitioners

Version: 0 Date: 07 Dec 2018

Reviewer: Athina Tatsioni

Reviewer’s report:

Tillmann et al., have conducted a cross-sectional study on challenges in diagnosing dementia in patients with a migrant background among German general practitioners. The topic is quite interesting and relevant to family practice. The authors have adequately recognized several limitations especially in the generalizability of the study results. However, I think that this effort is helpful providing the challenges raised by GPs in a densely populated state in western Germany. I think that the reporting would merit of a more detailed description of the process of the survey questionnaire development. In addition, there are several comments below that authors may find useful to address:

1. Abstract, Results: Besides percentages, authors are suggested they provide absolute numbers and 95% CIs for percentages for a complete presentation of the information.

2. Abstract, Results: At the beginning of each sentence, authors should spell out the number instead of starting with a numerical figure.

3. Methods, Study design: "The standardised, self-administered, written survey included questions about GPs’ experience in diagnosing dementia in patients with a migrant background and ways to improve diagnostics and support physicians." Please also provide the full questionnaire version that was used as well as the cover letter distributed to the participants. Both items may be included as supplementary material.

4. Methods, Study design: Authors are recommended to provide psychometric properties of reliability (consistency from one measurement to the next) and validity (accurate measurement of the concept) of the questionnaire as calculated in the pilot phase (line 115).

5. Methods, Participants: Authors need to explain the technique used for "random" sampling, which is reported previously (line 102). In addition, authors need to clarify the following: (a) how many and what type of attempts were made to contact subjects; (b) who approached potential subjects; (c) where were potential subjects approached; and (d) how was informed consent obtained.

6. Methods, Participants: The phrase "The exact process of inclusion and exclusion of GPs is shown in figure 1." Including the figure should be placed in the Results section.
7. Methods, Statistical analysis (lines 137-140): The percentage of missing data should be removed and presented in the Results section. However, the way authors decided to handle the missing data should remain as is. In addition, the phrase "Missings in independent variables were allocated to the reference category (category with the highest n) since they did not exceed 6% (age: n=9 (2.8%), gender: n=0, migrant background of the GP: n=4 (1.2%), percentage of patients with a migrant background: n=10 (3.1%))" is confusing as to whether the decision on allocating missing data to the reference category was taken ad- or post-hoc. Please clarify.

8. Methods, Statistical analysis (line 140): "To control for confounding…" Authors need to clarify which variables were considered as potential confounding factors.

9. Results: Throughout the Results section, authors are suggested the provide 95% CIs for each percentage both in the text and in the corresponding Tables and Figures.

10. Results: Throughout the Results section, authors are suggested they avoid starting a sentence with a numerical expressing (spelling out the number when it is at the beginning of a sentence is highly recommended).

11. Results, Characteristics of the study population: Please add a +/- sign before the number corresponding to each SD.

12. Results, Characteristics of the study population: Is there any information available on how those who agreed differed from those who did not agree? If yes, authors are encouraged to report it.

13. Results, Characteristics of the study population: The Table 1 title does not correspond to what is reported in the text "Table 1: GPs lack of confidence in diagnosing dementia in patients with a migrant background" vs. "Characteristics of the study population are summarised in the first column of table 1." Please report results from logistic regression in another Table (i.e., Table 2). In addition, for each estimate please provide both unadjusted and adjusted ORs, and explain in the footnote for which variable(s) the analyses were adjusted. If subgroup analyses were used, please clarify that and provide formal between group interactions as well as correction of P-values for multiple comparisons.

14. Discussion, Key findings and interpretation: The phrase "Uncertainties were more frequently reported by GPs aged 50 years or older, those without a migrant background themselves and those treating many patients with migrant background in their practices, although no proof of significance was established" is itself conflicting. Since no statistically significant difference was found, GPs reported difficulties in addressing migrant population regardless of age, migrant background, and proportion of treated migrant patients in the practice. Please re-phrase.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.
Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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