Author’s response to reviews

Title: Communication strategies in the prevention of diabetes type 2 and gestational diabetes in vulnerable groups: protocol for a scoping review

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Author’s response to reviews:

Major points:

- There are too many missing references. Before submitting a manuscript to a journal, a more careful revision of its content is necessary.

Author’s response:

Thank you for picking this up, we have corrected it now.

- The overall flow of the introduction is fine; however, it does not convince the reader of the importance of this scoping review. There is not enough background on the link between types of communication strategies and the effectiveness of lifestyle-related interventions. There are also several other barriers to the effectiveness of prevention strategies and life-style related
interventions - why focus on communication strategies? This should be clear after reading the Introduction section.

Author’s response:

- This will be one of two scoping reviews regarding T2DM/GMD prevention in vulnerable groups. This scoping review will focus on communication strategies, the other on barriers and facilitators. To the “Methods” section, we have added: “This is one of two scoping reviews, both of which will use the same search strategy and are similar in their methodology. In this scoping review, we will focus on communication strategies, and in the other, we will review barriers and facilitators for participating in preventative interventions aimed at vulnerable patients with, or at risk of, T2DM/GDM. Identifying barriers and facilitators is necessary to increase the number of participants in a preventive intervention addressing vulnerable groups. But just as important as this, we must determine communication strategies as well to get access to participants especially in vulnerable groups. Therefore, we aimed to identify e.g. translations or modifications of existing programs or new communication strategies for vulnerable groups.”

We have also added the following sentence to the background section to define the target population of this scoping review: “Our target audiences are primary care providers (e.g. general practitioners, nutritionists and midwives) as well as diabetologists and public health experts active in diabetes prevention.”

- It is also unclear to me why you are focusing on type 2 diabetes AND gestational diabetes (besides the fact that both T2DM and GDM’s prevalence are increasing). Prevention strategies for T2DM will target a population that is quite different from that that would be targeted by prevention strategies for GDM. Why including both in the same scoping review? This should also be clearer in the introduction.

Author’s response:

There are studies that focusing on tertiary prevention of GDM which is also primary prevention of T2DM [Tang et al. 2015 “Perspectives on Prevention of Type 2 Diabetes After Gestational Diabetes: A Qualitative Study of Hispanic, African-American and White Women”], so that there is some extent of overlap of target populations. We have added: “We will also extract the diabetes type, which will allow us to perform subgroup analyses in case the communication strategies differ between T2DM and GDM in any way.”
- The discussion of this manuscript is not a discussion per se, it is a copy paste of the objective and brief statement of the use you'll make of this review. A discussion is much longer than 3 sentences and should at the very least include an explanation of the significance of the proposed review as well as strengths and limitations of your approach. Please adjust.

Author’s response:

We have added strengths and limitations of the proposed approach to the discussion section, as well as the significance of this review within the overall project and its relevance to the German healthcare system.

- The methodology needs adjustments and is missing several details (a reader should be able to reproduce your search and selection process with the protocol):

Author’s response:

We used PRISMA-P to conduct guide our description of this protocol. Regarding the search strategy, the PRISMA-P statement paper recommends to “Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated”.

*Line 146: The search strategy shouldn’t be a "draft" but the actual final version.

Author’s response:

We rephrase as follows: “As an example, we present the search strategy which will be used in PubMed (Table 2).”

Section "exclusion criteria" and "additional file 1":

Table 1/additional file 1 shouldn't be "additional or supplementary" - it is essential information an should be in the protocol manuscript.
Author’s response:

We deleted the phrase “additional file 1” and placed Table 1 within the manuscript.

Why are you excluding studies published before 2008?

Author’s response:

We have added the following explanation to the “Methods” section: “Communication strategies are affected by external factors such as accessibility of care and information. We assume that there has been a major change in accessibility due to the volume of digital and virtual goods, services and processes in healthcare over the past 10 years. As a result, communication strategies might have changed, so that there would be a lack of comparability if we chose a longer period.”

Why have you decided to exclude studies conducted in native individuals, children and individuals with mental disorders? This should be justified in the protocol.

Author’s response:

The results of this scoping review will be used for the “National education and communication strategy on diabetes mellitus in Germany”. We have added: “Since Germany does not have a native population similar to the USA, Canada or South and Middle American countries, we decided to exclude studies focusing on native individuals. Children and individuals with mental disorders (e.g. schizophrenia or bipolar disorders) seem to need other communication strategies because you have to address their caregivers, therefore we excluded these individuals.”

Please explain what the WHO stratum A is.

Author’s response:

We have added: “WHO stratum A indicates countries with very low child mortality and low adult mortality.”
Are you excluding seniors > 65 years? (not clear). If so, why?

Author’s response:

Thank you for pointing this out. This was a mistake in Table 1 which we have now corrected: It should say > 65 years, not < 65 years.

Inconsistency: In the text you mention excluding people with mental disorders, but include individuals with drug addictions? Addiction is a psychological disorder. Also, disabled and homeless people are very likely to suffer from mental health issues. Please explain your inclusion/exclusion choices.

Author’s response:

We have added the following explanation: “We will exclude people with mental disorders, e.g. schizophrenia or bipolar disorders. We assume that for this type of mental disorder, other communication strategies are needed compared to the included vulnerable groups. In case we identify articles regarding homeless people, we will check if any mental disorders are described or mentioned in the inclusion criteria. If so, we will exclude this article. We will not exclude people with drug addiction per se because we suspect high rates of drug addiction within the vulnerable group of homeless people.”

In general, the vulnerable groups cannot be clearly distinguished. It is possible that homeless people suffer from e.g. drug addiction. We do not want to lose studies targeting homeless people because of their drug addiction, but neither do wish to include people with mental disorders like schizophrenia or bipolar disorder in general. That is why we listed so many potential vulnerable groups and had to define the in- and exclusion criteria the way we did it.

A PRISMA flow diagram should be use to summarize the article screen and selection process.

Author’s response:

We will use the PRISMA flow diagram. We have added the following sentence to the “Data management” section: “A PRISMA flow diagram will be used to summarize and visualize study selection.”
Sections "data extraction", "data items" and "data analysis": What actual outcome measures will you extract? And how are you planning to present your finding? "Communication strategies" does not tell the reader more than your objective - what actual characteristics of the search strategies are you expecting to find? You should give at least a general idea. Also, the data to be extracted from studies focusing on T2DM will probably be different from those focusing on GDM. How will you separate T2DM and GDM when extracting, reporting and discussing findings?

Author’s response:

We have added the following sentence to the “data extraction” section: “The extraction form will contain general study characteristics and communication strategies. If possible, we will try to categorize the identified communication strategies.” A detailed list of items which will be extracted is shown in the “data items” section. There is one item (“target disease”) to distinguish T2DM from GDM. The communication strategy will be extracted as narrative.

Section "Risk of bias": Ok for not using a risk of bias assessment tool, however study limitations should be part of your systematic data extraction/assessment process.

Author’s response:

In agreement with Tricco et al. 2018 “PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation”, a critical appraisal of included studies will not be part of our scoping review. We will extract detailed study and participants’ characteristics to make transparent potential study limitations.

Minor and language-related (not extensive) points:

Lines 1-2 (title): Would suggest changing "diabetes type II and gestational diabetes" for "type II and gestational diabetes". Also, please 1) revise the use of "type 2 diabetes" versus "type II diabetes" and 2) change "diabetes mellitus type 2" for "type 2 diabetes mellitus" throughout the text, abstract and title.
Author’s response:
Thank you, we have corrected this and used the abbreviation “T2DM”.

Line 74: Remove the word "diabetes" after "type 2".

Author’s response:
Thank you, we corrected this now.

Line 78: Since it's the start of a new section of the abstract, the word "therefore" should be removed.

Author’s response:
Thank you, we corrected this now.

Line 79: Change "diabetes type II and gestational diabetes" for "type 2 and gestational diabetes".

Author’s response:
Thank you, we corrected this now.

Line 90: Please change "diabetes mellitus type 2" for "type 2 diabetes mellitus".

Author’s response:
Thank you, we corrected this now.

Line 96 - 97: If you are to use the abbreviations "T2DM" and "GDM", you should add the word "mellitus" in the text too. You could also change abbreviations for "T2D" and "GD".
Author’s response:

Thank you, we corrected this now.

Line 97: Would suggest replacing semi-colon by "with".

Author’s response:

Thank you, we corrected this now.

Line 98:
- Would suggest replacing "were" by "being".
- Missing reference at the end of the sentence.
- Missing comma after "Because of its health consequence"
- "The global costs" … of what? I assume it's health-related spendings, but it is not clear.

Author’s response:

Thank you, we corrected this now.

Line 101: Missing reference at the end of the sentence.

Author’s response:

Thank you, we corrected this now.

Line 104: Please change "increasingly" by "increasing".
Author’s response:

Thank you, we corrected this now.

Line 105: Would suggest replacing "lower socio-economic status" by "economic status".

Author’s response:

Thank you for your suggestion. We would like to maintain with “socio-economic” since “economic” does not define our target population.

Line 108:

- Missing reference at end of sentence.
- "… led back to lifestyle factors, which are more common in deprived communities …". Which lifestyle factors are more common in deprived communities exactly?

Author’s response:

We rephrase lifestyle “disparities” and corrected the missing reference.

Line 109: Missing reference at end of sentence.

Line 110: Missing reference at end of sentence.

Author’s response:

Thank you, we have corrected this.

Lines 111 - 114: This sentence needs to be revised for language and structure.
We have rephrased this sentence as follows: “Numerous studies demonstrated that T2DM can be prevented or delayed by intensive lifestyle changes in individuals with pre-diabetes [4] However, little is known in terms of effective communication or awareness strategies in primary prevention of T2DM or GDM, in particular regarding accessibility to those who are hardest to reach and most at risk.”

Line 115: The objectives usually go at the end of the introduction section. There's no need for a "research objective" section, especially only for one sentence/objective.

Line 117: Please change "in the prevention of diabetes mellitus type 2 and gestation diabetes" for "in the prevention of T2DM and GDM".

Author’s response: Thank you, we have corrected this now.

Lines 120 - 122: It is sufficient to include this information in the "Funding" statement at the end of the manuscript.

Author’s response: We have added the context of the scoping review in the overall project (see “Author’s response” above).

Line 123: Change "is established according to PRISMA P" for "was established according to PRISMA-P guidelines".

Lines 127-128: Reference error?
Author’s response:

Thank you, we have corrected this now.

Line 131: Who will translate the articles?

Author’s response:

We have rephrased as follows: “All full texts published in languages other than English or German will be translated by an external agency.”

Line 132: "word health organisation" should be "World Health Organisation".

Author’s response:

Thank you, we corrected this now.

Line 134: Reference error?

Author’s response:

Thank you, we corrected this now.

Line 135: Missing reference at the end of sentence.

Author’s response:

Thank you, we corrected this now.

Line 139: The abbreviation "WHO" was never defined before in the text.
Author’s response:

Thank you, we corrected this now.

Lines 146-147: Is it PubMed or Medline? While 95% of PubMed’s articles are also indexed in Medline, those are 2 different databases with different Subject Headings.

Author’s response:

Thank you, we have corrected this. We will search in PubMed.

Lines 147-201: Would strongly suggesting putting the search strategy in a table.

Author’s response:

Thank you, we have added a table with the search strategy.

Lines 204: Would suggest using a software that is specially made for systematic reviews like Covidence.

Author’s response:

Thank you for that suggestion. We share your opinion regarding Covidence. But because of a limited timeframe of the overall project we stick to our standard practice. Furthermore, Covidence is expensive software.

Lines 210-211: What will be done if no response from corresponding authors?

Author’s response:

We have added: “If the corresponding author cannot be reached, we will report this in the scoping review.”
Lines 231: You're not doing any statistical analyses, the "data analysis" section should be renamed (e.g., data synthesis).

Author’s response:

We have renamed it now.