PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Conditions for the success and the feasibility of health mediation for healthcare use by underserved populations: A scoping review
AUTHORS	Richard, Elodie; Vandentorren, Stephanie; Cambon, Linda

VERSION 1 – REVIEW

REVIEWER	Alain Koyama Macquarie University
REVIEW RETURNED	01-Mar-2022

GENERAL COMMENTS	The authors present a scoping review describing studies investigating the effectiveness of health mediation for underserved populations. I have the following comments: The concept of "going towards" may best be introduced outside the abstract, and defined explicitly, as its use and meaning are a bit idiosyncratic. In the Methods section: "What are its study scheme and the methods used?" Is this analogous to study design? Do "mediation actors" refer just to the health mediators? Consistency of terminology may be helpful, particularly since the different reviewed papers themselves use different terms. In the "Health mediators related" section, how much do the described factors vary by country, since the cultural barriers or underserved populations, healthcare systems, etc can vary among the different countries represented by the 22 studies. "Yet what is universal is not necessarily equitable. One of the answers could then be to question the system to make it more equitable by adapting the response to various needs." Explicitly defining these concepts as "health equity" may make this point clearer.

REVIEWER	Zahid Asghar University of Lincoln, Community and Health Research Unit, School of Health and Social Care
REVIEW RETURNED	02-Mar-2022

GENERAL COMMENTS	Your paper puts in to context the work of the health mediators otherwise called Community Health Workers. You highlighted a significant obstacle to the effectiveness of health mediation was the difficulties encountered by health mediators in acting on the living conditions of the persons or health controversies relayed in the

	media. Some of your terminology could be clarified, e.g communication between health mediators and healthcare professionals, biographical history, cultural congruence, coherent posture, and objectifying the perception of the benefits. Soft skills could be subsection of health mediators. Could the analysis grid be added to the appendices?

REVIEWER	Alfons Hollederer Kassel University, Social Work and Social Welfare, Human Sciences
REVIEW RETURNED	26-May-2022

GENERAL COMMENTS	Thank you for the opportunity to review this manuscript. The scoping review aims to an interesting research question for public health care. It examines health mediation at the regional health system level. It is relevant to vulnerable populations and important for theory and practice. However, the review needs some major revisions. I hope that the comments will serve to improve this work: Title: First of all, an international scoping review should focus primarily on the “Effectiveness of health mediation…” (instead of “Conditions for the effectiveness…”). Introduction: The subject matter addressed in this scoping review is very interesting. However, more attention and clarification is required in the definition and operationalization of the term “health mediation”. The definition in the article refers only to a French-language book (Guillaume-Hofnung, 2020) and a French programmatic terminology by the Haute Autorité de Santé (2017). A theory-based framework or program theory is lacking. Outside France, there are very few interventions to “health mediation”, expressis verbis. The search equation in Appendix 1 shows, that the authors use "health mediators" synonymously with the term "community health worker". "Health assistants" are mentioned in the text but not in the search equation. The imprecise definition leaves open questions to overlap with other international concepts and terms (not included in the search equation), for e.g. “health promotor*”, "(public) health manager*", "(public) health coordinator*, "community health agent*". The differences remain largely unclear between “health mediation interventions“ and health literacy promotion, health promotion, coaching or counselling. Method: The inclusion criteria are imprecise. The exclusion criteria are completely missing and have to be added according to the PRISMA Statement (“We excluded all articles that did not meet the inclusion criteria.”). Therefore, the reasons for excluding studies in Figure 1 are not fully understandable, for e.g. “commitment for community health“ or “community health research“. The period of the publications is missing. How were “high-income countries” classified? A systematic literature search aims to identify all relevant publications. The search is limited to the titles of the articles for the most important search words (Appendix 1). This is inappropriate! Main phrases like "Health mediation" OR "Health mediator*" should be searched at title/abstract or at all fields. Additionally, grey literature databases are strongly recommended.

	Results: The authors wrote in the methods section, that they “conducted this review according to PRISMA Extension for Scoping Reviews (PRISMA-ScR) standards: Check-list and Explanation”. But what is about the topics according to PRISMA-ScR checklist: Critical appraisal within sources of evidence, results of individual sources of evidence and synthesis of results? The chapter „Effects of health mediation” presents multiple outcome indicators, but no results and no health outcomes, for e.g. increased utilization or improvement of health! The central question about the effectiveness of health mediation is not clarified. Can health mediation reduce inequalities in healthcare use? Knowledge of the evidence on health mediation interventions is a prerequisite for answering the questions about promoting or hindering conditions in the following chapters. The review includes health mediation interventions only from the United States, France, United Kingdom and Australia. However, these four countries have different types of healthcare systems. Health systems are not considered as contextual factors in the scoping review. It is well known that they have different challenges in access, fairness, utilization, and health inequalities. Discussion: Conceptual framework of health mediation (Figure 2) is not developed from the results. It is oriented to a macro-meso-micro model. However, Figure 2 does not present the micro level and displays (only) “persons” and “health mediators” at the meso level. Supplemental Material: The supplementary reporting doesn’t include PRISMA-ScR checklist with report on page.

REVIEWER	Andrew J. Macnab
REVIEW RETURNED	06-Jun-2022

GENERAL COMMENTS	Your review addresses an interesting and relevant topic. Your findings identify a range of difficulties impacting health mediation. Your paper would be improved by being shorter and easier to read. Abstract – the first sentence of the conclusion and third bullet point repeat the same point Introduction – this is long … The sections at the end of the third paragraph ‘the threefold penalty’ (P 4 lines 15-22) and definitions of ‘going towards’ and ‘working with’ are the most helpful. P 3 line 30 do you mean leasing or leading? Methods – to me this is clear and appropriate and the definition of terms helpful Results – again this section too long to digest. A table listing your main points would be helpful and allow you to shorten the text – at present your findings are a mixture of criteria that have different weights. I would emphasize criterion like ‘limited funding’, ‘success from a population-based approach’, need for integration into the care system’, ‘communication based on non-judgement’ and ‘recruitment’ (of individuals suited to health mediation) as the key points Discussion – this section should begin with summary sentences of what you did and what you found.

	Limitations – these are well articulated. As you indicated, difficulties found over the consistency of the definitions for the search terms used, the different methods employed in the studies reviewed, and the fact that the key element, effectiveness, was 'unevenly' addressed – are all issues that inevitably reflect on your findings. This again is why a shorter paper with tabulated principal findings would be more appropriate (and easier for the reader to learn from) Conclusion – this needs to be your 'take home message' Sentence one works. Sentence 2 and the first half of 3 P12 Lines 2-10) are philosophy more than fact. Sentence 5 from 'the scoping review' onwards also works Bibliography – comprehensively provides the background required

VERSION 1 – AUTHOR RESPONSE

Reviewer 1:

R1.1: The concept of "going towards" may best be introduced outside the abstract, and defined explicitly, as its use and meaning are a bit idiosyncratic.

We have replaced "going towards and which sought to strengthen people's empowerment through a third-party mediator" with "or similar" in abstract section line 20. We added the French National Authority for Health (HAS) definition of "going towards" in the context section paragraph 2 lines 114 to 117.

R1.2: In the Methods section: "What are its study scheme and the methods used?" Is this analogous to study design?

We precise this point by replacing this sentence with "What are the study designs in the different articles?" (experimental, observational, qualitative study, etc.) in the method section paragraph 5, lines 171 to 172.

R1.3: Do "mediation actors" refer just to the health mediators? Consistency of terminology may be helpful, particularly since the different reviewed papers themselves use different terms.

"Mediation actors" refer to "health mediators". We thank the reviewer for this suggestion and we replaced the expression 6 times in the text (line 273, 274, 309, 338, 340, 343)

R1.4: In the "Health mediators related" section, how much do the described factors vary by country, since the cultural barriers or underserved populations, healthcare systems, etc can vary among the different countries represented by the 22 studies.

The factors described in this section were identified in all the articles, varying little from country to country. Finally, the precariousness and instability of this function is a common factor whatever the culture or the organization of the system of the countries considered.

R1.5: "Yet what is universal is not necessarily equitable. One of the answers could then be to question the system to make it more equitable by adapting the response to various needs." Explicitly defining these concepts as "health equity" may make this point clearer.

We changed the sentence and added a definition of health equity in the discussion section, paragraph 3 lines 446 to 451, as suggested by the reviewer. We hope it is clearer.

"Indeed, health equity is achieving the highest level of health for all people. It entails focused societal efforts to address avoidable structural inequalities by equalizing the conditions for health for all groups, especially for those who have experienced socioeconomic disadvantage or historical

injustices. This requires, among other things, rethinking the system and environments so that it adapts to the different needs of the populations and understands the structural inequalities."

Reviewer 2:

R2.1: Some of your terminology could be clarified, e.g communication between health mediators and healthcare professionals, biographical history, cultural congruence, coherent posture, and objectifying the perception of the benefits.

We have replaced "biographical history" with "life history" in the result section health mediator related, paragraph 3, line 385.

We have added the definition of "cultural congruence" in the result section health mediator related, paragraph 3, lines 383 to 384: "the same culture or ethnicity as the population served".

We have modified "coherent posture" by "an accurate and adaptative posture" paragraph 3, line 381.

We have modified "objectifying the perception of the benefits" by "To this end, health mediators could reinforce people's perception of the health care benefits" in the result section effects of health mediation, paragraph 3, lines 385 to 386.

We have modified "a lack of communication between …" by a "lack of information sharing" in the section result work organisation-related, paragraph 2, lines 304 to 305.

R2.2: Soft skills could be subsection of health mediators.

Thank you for your suggestion. Even if soft skills seem indispensable, we find it wise to keep them linked to the intervention posture and recruitment issue because these three categories of conditions are intimately linked. Therefore, we group together in the health mediator-related section the soft skills, posture, and the recruitment issue.

R2.3: Could the analysis grid be added to the appendices?

As suggested, we added an analysis grid to the appendices.

Reviewer 3:

R3.1 Title: First of all, an international scoping review should focus primarily on the "Effectiveness of health mediation…" (instead of "Conditions for the effectiveness…").

In this article, we conducted a scoping review to identify conditions related to health mediation. Therefore, this study design is different from the systematic review which aims to provide the most effective evidence to inform practice. It is the case for systematic review. Indeed, according to Munn et al[1], a scoping review aims to identify the types of available evidence in a given field, clarify key concepts/definitions in the literature, examine how research is conducted on a certain topic or field, and identify characteristics or factors related to a concept. Scoping review could be a precursor to a systematic review to identify and analyze knowledge gaps.

Introduction:

R3.2 : The subject matter addressed in this scoping review is very interesting. However, more attention and clarification is required in the definition and operationalization of the term "health mediation". The definition in the article refers only to a French-language book (Guillaume-Hofnung,

[1] Munn, Z. et al., 2018. Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. BMC medical research methodology, 18(1), 1-7.

2020) and a French programmatic terminology by the Haute Autorité de Santé (2017). A theory-based framework or program theory is lacking.

HAS proposes a pragmatic definition of health mediation based on consultation with the actors who implement it. Some French authors[2] propose theories for mediation and in this framework propose an extension for health mediation. They also mention the lack of theorization of health mediation. This work is part of a larger research that seeks to fill rightly this gap. However, the World Health Organization's Framework for action on social determinants of health can be considered for health mediation. It represents a macroscopic view of the influence of social determinants of health on the health equity and well-being of populations[3].

R3.3: Outside France, there are very few interventions to “health mediation”, expressis verbis. The search equation in Appendix 1 shows, that the authors use "health mediators" synonymously with the term "community health worker". "Health assistants" are mentioned in the text but not in the search equation.

An error occurred in the translation, the word “health assistant” was removed and replaced by “peer mentor” which is in the search equation (method section, line 147).

R3.4: The imprecise definition leaves open questions to overlap with other international concepts and terms (not included in the search equation), for e.g. “health promotor*”, "(public) health manager*", "(public) health coordinator*, "community health agent*".

We agree with the reviewer. In view of the difficulty of translating the term health mediator and its possible polysemy, we have included in the search algorithm the following MESH term: "community health worker" which brings together many of the terms you mentioned above.

R3.5: The differences between "health mediation interventions" and health promotion, health promotion, coaching or counselling remain very unclear. The differences remain largely unclear between “health mediation interventions” and health literacy promotion, health promotion, coaching or counselling.

Health mediation is an intervention implemented mainly in France, and even in Europe, with Roma, Travellers or Gypsies. Since the covid-19 pandemic, health mediation has been supported politically and financially and deployed by French institutions to fight against inequalities. We rely on a pragmatic and consensual definition in France of health mediation proposed by the HAS: "as a temporary process of "going towards" populations, professionals and health and social institutions and "working with" people in a logic of empowerment of individuals. "

The specificity of this definition is the notion of "going towards". Health promotion (Ottawa charter) is not a targeted intervention but a framework for public health action deploying several lines of action, one of which may be health mediation.

Health literacy promotion aims to develop the population's ability to seek and appropriate knowledge in the field of health. Again, this can be a health promotion strategy, but it is not synonymous with health mediation, as it is only concerned with the development of cognitive resources, whereas health mediation seeks to create an interface and a meeting between a health system and the needs linked to specific living conditions. This goes far beyond the acquisition of knowledge or the skills to obtain it.

[2] Guillaume-Hofnung M. La Médiation. Que sais je ? 2020;128.
Faget J. Médiations : les ateliers silencieux de la démocratie. ERES. 2015;304.
Tapia C. La médiation : aspects théoriques et foisonnement de pratiques. Connexions. 1 juin 2010;n° 93(1):11-22.

[3] A Conceptual Framework for Action on the Social Determinants of Health. World Health Organization; Geneva, Switzerland: 2010

As for coaching or counselling, it is only possible when a person is already in a healthcare process and specifically dedicated to a theme, a risk factor or a pathology. It is therefore irrelevant in our analysis where the challenge is already to bring undeserved people back into the healthcare system.

Method :

R3.6: The inclusion criteria are imprecise.

We clarified the inclusion criteria by adding “Intervention with a third-party mediator” (method section, line 153).

R3.7: The exclusion criteria are completely missing and have to be added according to the PRISMA Statement (“We excluded all articles that did not meet the inclusion criteria.”).

We clarified exclusion criteria : method section, lines 159 to 167.

“The exclusion criteria were as follows:

- Interventions without the presence of a third-party mediator
- Interventions conducted by peers (interface role with populations only),
- Health mediation interventions in which the third-party mediator provided care,
- Health promotion interventions that did not mobilise “going towards” actions,
- Interventions implemented in low-income countries,
- Interventions conducted in the general population,
- Methods promoting community engagement in research,
- Articles that did not report the conditions of effectiveness of the intervention.”

R3.8: Therefore, the reasons for excluding studies in Figure 1 are not fully understandable, for e.g. “commitment for community health” or “community health research”.

We agree with the reviewer. We modified the flowchart and replaced “commitment for community health” or “community health research” with “Methods promoting community engagement in research”.

R3.9: The period of the publications is missing.

The period of the publications was added in the method’s abstract line 19.

R3.10: How were “high-income countries” classified?

We have used the 2021 world bank classification to select middle and high-income countries[4].

R3.11: A systematic literature search aims to identify all relevant publications. The search is limited to the titles of the articles for the most important search words (Appendix 1). This is inappropriate! Main phrases like "Health mediation" OR "Health mediator*" should be searched at title/abstract or at all fields.

We agree with you that it is not a systematic review, but a scoping review used to clarify a concept not to collect exhaustively “all relevant” information about a specific and extremely precise question. The selection limited to the titles, with the use of MESH terms, led to identifying 1407 articles. A selection on titles and abstracts leads to the identification of 7514 articles, which makes the search unfeasible. But we agree that this is a limitation, we have added a phrase in the strengths and limitations section

[4] https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups

of the discussion on this issue (discussion section, paragraph 5, lines 464 to 467). This scoping review establishes the extent of research carried out on a specific topic “health mediation” and identifies publications relevant to that topic, as well as identifying knowledge gaps. This is a preliminary step in a larger research project.

R3.12: Additionally, grey literature databases are strongly recommended.

We agree with your comment. But grey literature has been explored by the French High Authority for Health (HAS) in 2017, and it has changed little since. It leads to establishing the referential competencies, formation, and good practices of health mediation. It lacks rightly the subject of our research the structural and postural conditions to make health mediation sustainable and effective.

Results:

R3.13: The authors wrote in the methods section, that they “conducted this review according to PRISMA Extension for Scoping Reviews (PRISMA-ScR) standards: Check-list and Explanation”. But what is about the topics according to PRISMA-ScR checklist: Critical appraisal within sources of evidence, results of individual sources of evidence and synthesis of results?

In PRISMA-ScR checklist, the critical appraisal is recommended if it’s appropriate. We aim to have a mapping to identify the existing types of evidence in the field, clarify key concepts and identify key characteristics related to health mediation. We did not want to identify the conditions for effective health mediation, but to explore all the conditions to be considered. So, we haven’t made a critical appraisal. For the authors of the articles, health mediation was effective even if this effectiveness has not been demonstrated by an experimental effectiveness evaluation. That said, we understand that our title can be ambiguous on this subject so we have changed it and the objective to be clearer.

R3.14: The chapter „Effects of health mediation” presents multiple outcome indicators, but no results and no health outcomes, for e.g. increased utilization or improvement of health. The central question about the effectiveness of health mediation is not clarified. Can health mediation reduce inequalities in healthcare use? Knowledge of the evidence on health mediation interventions is a prerequisite for answering the questions about promoting or hindering conditions in the following chapters.

We agree with your comment. It is ultimately about positive effects as perceived by the actors, so the term effectiveness is inappropriate. We have changed the title and objective to make it clearer and more relevant to what has been investigated in this study.

R3.15: The review includes health mediation interventions only from the United States, France, United Kingdom and Australia. However, these four countries have different types of healthcare systems. Health systems are not considered as contextual factors in the scoping review. It is well known that they have different challenges in access, fairness, utilization, and health inequalities.

Health systems are not considered as contextual factors in the scoping review because underserved populations can benefit from free medical aid (eg. Medicaid in United States or state medical aid in France) or have access to specific health centers (eg. PASS mobile in France). However, the health mediator needs to be well integrated into the health system to accompany people to healthcare use and facilitate health professionals to provide care according to the specificity of the underserved population. Therefore, integration into the health system is a condition for the success and feasibility of health mediation.

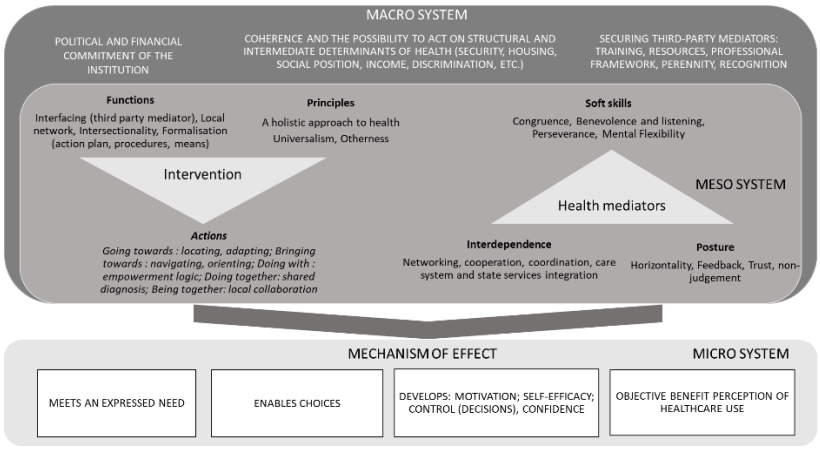
Discussion:

R3.16: Conceptual framework of health mediation (Figure 2) is not developed from the results.

The framework is developed from the raw results and their discussion, therefore it is placed in the discussion underlining the complexity to take into consideration all these factors by a single, simple intervention of going towards. Health mediation needs multiple interventions referring to multiple levels. It is an interventional system.

R3.17: It is oriented to a macro-meso-micro model. However, Figure 2 does not present the micro level and displays (only) “persons” and “health mediators” at the meso level.

We agree with the reviewer that it was implicit. We modified and clarified the conceptual framework and added the micro system which corresponds to the individual level.



R3.18: Supplemental Material: The supplementary reporting doesn’t include PRISMA-ScR checklist with report on page.

We added it as appendix.

Reviewer 4:

R4.1: Abstract – the first sentence of the conclusion and third bullet point repeat the same point

We modified the strengths and limitation section (lines 37 to 46)

“Strengths and limitations:

- We conducted a scoping review, to clarify key concepts and characteristics of health mediation rarely analyzed.
- The review was conducted by using two complementary approaches of health mediation: as an intervention or as a position in a professional function.
- The review focused mainly on the structural conditions for the success and feasibility of health mediation for improving healthcare use for underserved population.
- The polysemy of the term “mediation” and the variety of different terms used to describe health mediation makes it difficult to globally assess.
- The effectiveness of health mediation is rarely really demonstrated.”

R4.2: Introduction – this is long …

The sections at the end of the third paragraph ‘the threefold penalty’ (P 4 lines 15-22) and definitions of ‘going towards’ and ‘working with’ are the most helpful.

We have deleted the healthcare use definition and it associated determinants (context section, paragraph 1 to 3, lines 48 to 88.

R4.3: P 3 line 30 do you mean leasing or leading?

We mean “leading”. This part has been removed.

R4.6: Results – again this section too long to digest. A table listing your main points would be helpful and allow you to shorten the text – at present your findings are a mixture of criteria that have different weights. I would emphasize criterion like ‘limited funding’, ‘success from a population-based approach’, need for integration into the care system’, ‘communication based on non-judgement’ and ‘recruitment’ (of individuals suited to health mediation) as the key points

We agree with your comment. We have modified the titles of the analytical analysis of the conditions of success and feasibility of health mediation with the proposals made above. We have moved the paragraph effect related to the person to the paragraph on the effects of health mediation (results section, effects of health mediation paragraph lines 298 to 304).

R4.4: Discussion – this section should begin with summary sentences of what you did and what you found.

We synthesize the results in the conceptual model of health mediation (discussion section Towards a conceptual framework of health mediation, paragraph 2, lines 400 to 414). However, we set out our argument before to justify this mapping and why we have considered health mediation as an interventional system.

For more clarity, we summarized in one sentence the results at the beginning of the discussion section (discussions section, paragraph 1, lines 386 to 387).

“We conducted a scoping review which identified nine conditions for the success and feasibility of health mediation acting at different levels with underserved populations.”

R4.5: Limitations – these are well articulated. As you indicated, difficulties found over the consistency of the definitions for the search terms used, the different methods employed in the studies reviewed, and the fact that the key element, effectiveness, was ‘unevenly’ addressed – are all issues that inevitably reflect on your findings. This again is why a shorter paper with tabulated principal findings would be more appropriate (and easier for the reader to learn from)

We have considered the previous comments. We did not consider it relevant to include the success and feasibility conditions in a table. But by changing the titles, we notice that the results appear clearer and more understandable. As we already said, this research was the first step to a larger project on health mediation. That’s why we must be very explicit.

R4.6: Conclusion – this needs to be your ‘take home message’. Sentence one works. Sentence 2 and the first half of 3 P12 Lines 2-10) are philosophy more than fact. Sentence 5 from ‘the scoping review’ onwards also works.

As suggested, we deleted sentences 2, 3 and 4 to highlight the main message.

VERSION 2 – REVIEW

REVIEWER	Alfons Hollederer Kassel University, Social Work and Social Welfare, Human Sciences
REVIEW RETURNED	10-Aug-2022

GENERAL COMMENTS	The reviewer completed the checklist but made no further comments.