

Current Understanding of Maternal Healthcare Acceptability from Patients' Perspectives: A Scoping Review Protocol

Joy Blaise Bucyibaruta

University of Pretoria, Faculty of Health Sciences

Lesley Bamford

University of Pretoria, Faculty of Health Sciences
National Department of Health, South Africa

Leah Maidment

University of Pretoria, Faculty of Health Sciences

Annatjie Elizabeth van der Wath

University of Pretoria, Faculty of Health Sciences

Carl August Daniel Heese

University of Pretoria, Faculty of Health Sciences

Estelle Grobler

University of Pretoria, Faculty of Health Sciences

Mmapheko Doricah Peu

University of Pretoria, Faculty of Health Sciences

Alfred Musekiwa

University of Pretoria, Faculty of Health Sciences

Abstract

The importance of healthcare acceptability concept cannot be overlooked in health sciences including psychology, yet, it remains controversial and it is poorly understood by all health researchers. This concept cuts across all health disciplines and it refers to human behaviour such as attitude, trust, and respect through interactions between patients and health professionals. Many studies have been published on acceptability of maternal healthcare, but there is no consensus on how it is defined and conceptualised. Thus, this study aims at reviewing existing literature to shed light on the definition and conceptualisation of maternal healthcare acceptability from the patients' perspectives. This study will apply scoping review to reach its broad purpose. The search of relevant articles from electronic and grey literature will be guided by a search strategy developed based on eligibility criteria. Two researchers will independently screen the retrieved articles using Rayyan software and chart data from included articles. An agreement of 80% between them will be considered appropriate. This study will provide a general interpretation of key findings in line with available evidence and consistent with the research purpose. The researchers will discuss the study's limitations and propose potential implications and future research projects.

Keywords: Acceptability, Attitudes, Community Interactions, Expectations, Experiences, Healthcare Provider Interactions, Healthcare Systems and Policy Interactions, Maternal Healthcare, Perceptions, Support

Introduction

Acceptability of healthcare is consistently increasing its relevance in health sciences including psychology to improve healthcare service delivery to the population (Cameron et al., 2017; Sekhon, Cartwright, & Francis, 2017; Shaw, Larkin, & Flowers, 2014). The concept of acceptability of healthcare cuts across all countries and all healthcare disciplines with undeniable significance in planning, implementing and monitoring healthcare interventions (Cameron et al., 2017; Shaw et al., 2014). Nevertheless, acceptability of healthcare remains poorly defined and conceptualised (Bucyibaruta et al., 2018; Sekhon et al., 2017). There are two theories in literature used to describe acceptability of healthcare; unitary construct and multi-construct (Sekhon et al., 2017). However, a growing body of evidence supports the multi-construct theory (Bucyibaruta et al., 2018; Sekhon et al., 2017). Therefore, this study will approach acceptability of healthcare as a multi-construct concept.

Acceptability of healthcare reflects the quality of interactions between the patient and the community, health provider or health systems (Gilson, 2007). Those interactions are described by the terms conveying beliefs and perceptions of received or anticipated healthcare (Dyer, Owens, & Robinson, 2016; Murphy & Gardner, 2019). Such terms include respect, privacy, confidentiality, trust, understanding, support, etc. Those terms have overextended meanings and some researchers have proposed to categorise them under specific constructs of acceptability by applying the best-fit theory (Gilson, 2007; McIntyre, Thiede, & Birch, 2009). The nature of those interactions is clearly multifaceted making acceptability of healthcare a complex concept. As a consequence, acceptability of healthcare stays a controversial topic without a consensual definition and shared conceptual framework within wider community of health professionals. This situation calls for more research to inform uniform understanding of healthcare acceptability for practical implications.

The concept of acceptability of healthcare — also referred to as cultural access — was introduced in the early 1980's as one of the dimensions of access to healthcare (Penchansky & Thomas, 1981). It is worth noting that affordability — also denoted as financial access — and availability — also mentioned as physical access — are the other two dimensions of access to healthcare widely described in the literature (Bucyibaruta et al., 2018; McIntyre et al., 2009; Silal, Penn-Kekana, Harris, Birch, & McIntyre, 2012). Acceptability was originally announced as “the best fit fulfilment of healthcare expectations between the patient and the healthcare system”. (Penchansky & Thomas, 1981) Af-

ter that, significant effort was made to refine the definition of acceptability of healthcare (Dillip et al., 2012; Donabedian, 2002; Kozarewicz, 2014; Kyei-Nimakoh, Carolan-Olah, & McCann, 2017; Rothstein et al., 2016; D. J. Russell et al., 2013; Sekhon, Cartwright, & Francis, 2018; Staniszewska et al., 2010). For example, acceptability of healthcare was described as “conformity to the wishes, desires and expectations of patients and responsible members of their families” (Donabedian, 1993).

Some authors have referred acceptability of healthcare as “social and cultural distance between health care systems and their users” (Hausmann-Muela, Ribera, & Nyamongo, 2003). Acceptability of healthcare was also reported as “individual perceptions influenced by social representations and modified in social interactions, suggesting a ‘fit’ or match between providers and clients with regard to their understandings of disease” (Dillip et al., 2012). Other authors have argued acceptability of healthcare as “attitudes and beliefs of consumers about the health care system to the personal and practice characteristics of health care providers” (Deborah J Russell et al., 2013). Acceptability of healthcare was further defined as a “multi-faceted construct reflecting the extent to which people delivering or receiving a healthcare intervention consider it to be appropriate, based on anticipated or experienced cognitive and emotional responses to the intervention” (Sekhon et al., 2017). Those are some examples of contradictory definitions of healthcare acceptability from the literature. Therefore, this confused state of healthcare acceptability definition requires a need of a comprehensive clarification within the broader society of health researchers.

The lack of shared understanding on how acceptability of healthcare is defined and conceptualised impedes its applications at the level of definite healthcare such as maternal healthcare. While there are common characteristics shared by different healthcare services in general, there are distinctive aspects that make maternal healthcare unique as far as acceptability is concerned. For example, antenatal delivery and post-natal healthcare services are unique to maternal healthcare. Thus one would expect exclusive description of maternal healthcare acceptability to match specific expectations and experiences of mothers attending antenatal, delivery and post-natal healthcare services. Many scholars have published on acceptability of maternal healthcare (Al-Mujtaba et al., 2020; Balde et al., 2017; Cummins et al., 2021; Feinberg, Smith, & Naik, 2009; Grant et al., 2017; Påfs et al., 2015; Sripad, Warren, Hindin, & Karra, 2019). However, those researchers had different conceptions of maternal healthcare acceptability.

It is obvious that a definite definition and conceptualisation of maternal healthcare acceptability is still

to be agreed upon amongst researchers. Women often go through psychological distress resulting from various stressors and demands that are difficult to cope with during pregnancy, delivery and immediate postpartum (Staneva, Bogossian, & Wittkowski, 2015; Traylor, Johnson, Kimmel, & Manuck, 2020). This situation occasionally shapes acceptability maternal healthcare in how various health professionals (midwives, doctors, psychologists or psychiatrists) assist the most affected women (Alderdice, McNeill, & Lynn, 2013; Hadfield & Wittkowski, 2017). Nevertheless, the concept of acceptability of maternal healthcare is poorly understood by health researchers including psychology researchers to advance and support appropriate health practice in such circumstance (Sekhon et al., 2018). Moreover, there is a paucity of evidence about contextual understanding of how acceptability of maternal healthcare is defined and conceptualised in existing literature.

Thus, this study will seek to review existing literature to shed light on how the concept of maternal healthcare acceptability is defined and conceptualised. The specific objectives will include:

1. To identify the gaps in defining the concept of maternal healthcare acceptability.
2. To explore the contextual understanding of maternal healthcare acceptability.
3. To ascertain the implication practices of maternal healthcare acceptability.

Methods

This study is embedded in a bigger PhD research project applying mixed methods including scoping review as presented and approved by the Faculty of Health Sciences Research Ethics Committee, University of Pretoria. Thus, this study will be conducted in observation with all ethical and legal considerations as per the Research Ethics Certificate Reference No: 545/2019. Moreover, this protocol article is submitted for registered report, and it will be conducted once the in-principle acceptance (IPA) is provided by Meta-Psychology journal. The protocol is also registered on Open Science Framework (<https://osf.io/s3ymu>) to increase research transparency and to avoid unintended duplication of reviews (<https://osf.io/gxp3c/>). Thus, this study will be conducted in line with the registered report's guidelines, and it will be subject to ethical and policy consideration of Meta-Psychology that will issue the IPA for this project.

Study design

The scoping review is an appropriate method to organize and summarise existing literature in an orderly and replicable way to identify gaps in the body of literature and to answer a broader research question (Armstrong, Hall, Doyle, & Waters, 2011; Dijkers, 2015). This scoping review will be conducted in six steps as described by Arksey and O'Malley (Arksey & O'Malley, 2005). Those steps consist of: (i) identifying the research question, (ii) identifying relevant studies, (iii) selection of eligible studies, (iv) charting the data, (v) collating and summarizing the results, and (vi) consultation exercise with experts in the field [optional]. The latter will be included to improve the usefulness of the findings for implication practices. This study will also be guided by the scoping review framework developed by the Joanna Briggs Institute to enhance the methodological quality (Tricco et al., 2018).

Identifying the research questions

In order to establish the current understanding of how acceptability of maternal health services is defined and conceptualised in existing literature, this scoping review will pursue to answer the following questions:

1. How is maternal healthcare acceptability defined and conceptualised?
2. What are contextual understandings of maternal healthcare acceptability?
3. What are implication practices from the concept of maternal healthcare acceptability?

Identifying relevant studies

The researchers endeavour to be as comprehensive as possible in identifying relevant studies and documents suitable for answering the research questions. Thus, the principal investigator (PI) and two co-authors will independently conduct online search for relevant articles to answer the research questions from existing databases including MEDLINE / PubMed, Cochrane Library, Google Scholar and CINAHL. The researchers will apply the snowball strategy by checking the reference lists of retrieved studies as well as 'cited by' articles to identify additional studies. Furthermore, the researchers will perform search of relevant grey literature of dissertations/theses (ProQuest Dissertations & Theses Global), conference abstracts (EMBASE Conference Abstracts, Conference Proceedings), PowerPoint presentations, magazines, health organisations websites such as WHO, departments of health in different countries, Google website and unpublished work on the topic. A

librarian has been recruited to guide information retrieval from relevant databases and other steps of this scoping review.

The identification of relevant studies will be guided by eligibility criteria and search strategy developed by the PI. The latter will ensure that eligibility criteria and search strategy are understood by the other two researchers who will be involved in identification of relevant studies before this activity will be undertaken. Identification of relevant studies will be iterative in nature. Once about 1 000 articles will be retrieved, the researchers will focus on other steps of scoping review. However, identification of additional relevant studies may resume based on the preliminary findings or consensus among the researchers of this study or recommendations from experts in the consultation exercise.

Selection of eligible studies

An “open” strategy will be adopted to allow for the inclusion of any and all sources existing in the literature on acceptability of maternal healthcare. However, only sources in English will be included because the latter is the common language of the researchers that will be involved in the screening of retrieved articles. The concept of acceptability of healthcare was first described in 1981 (Penchansky & Thomas, 1981). Thus, the selection process will include scientific works on this topic published between 1981 up to now (2022). The study design, methodological quality appraisal or risk of bias assessment for included articles will not be considered in line with the standards of scoping review methodology (Armstrong et al., 2011).

Eligibility criteria. Identified studies will be screened using eligibility criteria carefully developed by the PI to ensure that the included studies are relevant to address the research questions. Eligibility criteria have been determined using Population-Concept-Context (P-C-C) criteria as depicted in Table 1.

Exclusion criteria. This scoping review is part of a larger PhD project looking at the impact of acceptability of maternal healthcare on maternal mortality and thus, exclusion criteria will include:

- Population: studies reporting on female population aged less than 18 years including adolescents or teenagers falling pregnant.
- Concept: studies reporting on acceptability of services other than maternal healthcare acceptability or maternal healthcare acceptability beyond antenatal, delivery and immediate post-partum (within 42 days after termination of pregnancy or delivery).

- Studies without full-text.

N.B: It is worth noting that we will include the studies that partly overlap on both inclusion and exclusion criteria such as young female population (less than 18 years) and stakeholders other than the women or different concepts from maternal healthcare acceptability. However, only findings meeting the inclusion criteria will be extracted for data charting, analyzing and reporting of the results.

Search strategy. Drawing on the determined eligibility criteria, the PI has developed the search strategy using specific keywords or Medical Subject Headings (MeSH) terms in various combinations to increase identification of related studies published on the topic. Table 2 shows some of the MeSH terms that will be used in search strategy. Together with the librarian and the two researchers who will be involved in articles search, the PI will conduct a pilot search applying the search strategy to check its appropriateness on different online databases. The search strategy might be refined by the researchers engaged in online search by using synonymous and/or proxy words to maximise identification of publication related to acceptability of maternal healthcare.

Level one screening. After identification of relevant studies, the two researchers will export the retrieved articles into Endnote and email them as a compressed Endnote file to the PI who will merge them into a single Endnote library. Then, the PI will remove the duplicates and import the merged Endnote library into Rayyan software for level one screening. The two researchers have been trained in literature screening using Rayyan software and they will be responsible for independently screening the titles and abstracts of identified sources. The screening process will be blinded. Different studies on scoping review have used different levels of agreement between researchers involved in the screening process; including 75% (Tricco et al., 2016), 80% (Pham et al., 2014) and 85% (Damanhoury et al., 2018; Tricco et al., 2018). Thus, an agreement level of 80% for this study between two independent researchers will be considered appropriate in the pilot screening of the first 100 articles before proceeding to the screening of the rest of studies retrieved. The PI will resolve any screening conflict between the two independent researchers by reviewing with them the inclusion and exclusion criteria to reach a consensual decision. This will be done after the pilot screening phase and for each article before it will be included in or excluded from the next step of level two screening.

Level two screening. After successful screening of titles and abstracts, the PI will export the included articles from Rayyan into Endnote and email them to the

Table 1

Eligibility criteria.

Criteria	Description
Population	Women aged 18 years and above seeking maternal healthcare
Concept	Acceptability of maternal healthcare (antenatal; delivery; post-partum)
Context	Open (worldwide)

Table 2

Search strategy.

Eligibility criteria	Keywords or MeSH terms	Synonymous or proxy words
Population	"Women"	"Mothers", "females", "women of reproductive age", etc.
Concept	"Acceptability"	"Acceptable/unacceptable", "respectful/disrespectful", "trust/distrust", "supportive/unsupportive", "caring/uncaring", "perception/experience", etc.
	"Maternal healthcare"	"Pregnancy", "labour", "delivery", "post-partum", "maternal healthcare services" "antenatal care", "PMTCT", "mental health in pregnancy", "breastfeeding", etc.
Context	<i>Specific country.</i> Example: "South Africa", "Zimbabwe", "Malawi", "Rwanda", "United States of America", "Canada", "United Kingdom", etc.	Province, town or healthcare facility in a specific country. Examples: "Gauteng", "Western Cape", "KwaZulu-Natal", "Mpumalanga", "Johannesburg", "Cape Town", "Durban", "Secunda" "Chris Hani Baragwanath", "Steve Biko", etc.
	Worldwide or specific continent: "global", "Africa", "Europe", etc.	Sub-regions within a continent. "SADEC", "Sub-Saharan Africa", "North Africa", "Western Europe", "North America", etc.
Boolean operators	"OR", "AND", "NOT"	

screeners as a compressed Endnote file to ensure that the full texts are attached in the Endnote library. The two researchers will attach the full text of selected articles as PDF documents into Endnote library. Then, they will email them back as compressed Endnote files to the PI who will merge them into a single Endnote library with full texts attached. The PI will import the merged Endnote library into Rayyan software for level two screening with the only purpose being to include or exclude them for a further data charting process. The screening process will be blinded with an agreement level of 80% between two independent researchers to be appropriate. The PI will be involved in resolving the conflict occurring between the two screeners during the full-text screening by reviewing with them the inclusion and exclusion criteria to reach a consensual decision. Like level one screening, the agreement level between independent research during the level two screening will be checked for the first 100 articles and for any subsequent article before it will be included in or excluded from data charting process.

Database search. The PI has developed the database search which will be completed to summarise the historic search. Table 3 shows database search.

Charting the data

From each included study, the data extraction process will be conducted in such a way to provide a logical and quantitative descriptive summary of relevant information that aligns with the research questions and objectives. The PI has developed a data charting form to record the key information extracted from articles that will be included in this study. The PI will create a google document with all data headings from the charting form to be collected from each included article. He will then invite two researchers to complete it independently. The PI will conduct a pilot data charting with the two researchers on data charting applying the data charting form. The agreement level of 80% between the researchers will be considered appropriate before continuing with data charting of the rest of the included articles. Any conflict amongst the researchers will be

Table 3

Database search.

Search ID#	Dates	Number of studies retrieved (excluding duplicates)	Number of studies selected after screening level one	Number of studies included after screening level two
S#1				
S#2				
S#3				
S#4				
S#5				
Etc.				

resolved by the PI. The two researchers will submit their answers and the PI will review with them the answers in a google sheet to resolve any subsequent conflict between them before exporting the database into Stata software for quantitative descriptive analysis. Table 4 describes pre-defined data charting form.

Collating, summarizing and reporting the results

The reporting and mapping of the body of literature will be consistent with the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) to align study selection with the research objectives (Liberati et al., 2009). Quantitative descriptive statistics such as mean, median, frequencies, and percentages will be used to analyse, describe and summarize the results. The researchers will use the PRISMA-ScR flow diagram to demonstrate the process of inclusion of relevant articles from identification to the retention of articles fulfilling all eligibility criteria (Figure 1).

The results will be presented in either a graphical/charted or tabular forms and reporting frequencies or percentages of data charted. In addition, the researcher will provide a narrative summary accompanying the tabulated and/or charted results to highlight how the results are linked to the objectives and research questions of this study.

Consultation exercise with experts

The consultation exercise has been planned to engage with experts in the field through emails, one-to-one consultative virtual meetings or through Open Science Framework (OSF) project to regularly record thoughts, opinions and experiences from experts on this topic. The researcher will engage various experts in the field of acceptability of maternal health services to enhance the findings from scoping review and to obtain additional references that may be included in this study. The experts' consultation will also be used as an exercise to provide more insights into the scoping review results, additional relevant articles and implications for future

research projects, policy decision-making and strengthening of health system practices.

We will apply Delphi technique as an appropriate method to engage experts in consultation exercise to build a consensus among them on the findings from the scoping review by the research team and validate overall results including experts' inputs (Falzarano & Zipp, 2013; Nasa, Jain, & Juneja, 2021). We defined an expert as an individual holding a master's or higher degree in any field and has knowledge and experience to meaningfully participate in the expert consultation process. We will look for experts from four groups: (1) patients; (2) healthcare providers; (3) healthcare researchers; and (4) healthcare managers/policy makers.

Experts will be identified globally from authors who published on this topic and through academic pool with interest on this topic. We will also apply snowball sampling strategy in experts' selection process. We will request any interested or recruited expert to name additional experts from her/his cycle as expert patients, healthcare providers, healthcare researchers or healthcare managers/policy makers for potential recruitment. However, they will not know whether the named additional experts have been recruited to maintain anonymity of experts participating in this exercise. The recruitment process of experts will last for five months and only those committed will be included in this study. Existing literature on Delphi technique does not offer a definite sample size, number of surveys and level of consensus. We will aim to recruit at least 5 to 10 participants from each expert groups (i.e., 20 to 40 in total) and conduct at least four rounds of survey including brainstorming and validation phases to reach 80% of consensual agreement among experts in line with other studies applying this method (Falzarano & Zipp, 2013; Nasa et al., 2021). Figure 2 outlines the process of administering Delphi surveys and Appendix 1 summarizes how each research question will be answered through experts' participations (Questionnaire 1).

For research question 1 we plan to summarize the findings on definition and conceptual framework of maternal healthcare acceptability from included articles.

Table 4
Data charting form.

Data heading	Description
Title of study	Title of the article or study
Author/s	Name of author/s
Publication year	Year that the article was published
Study design	Qualitative Quantitative Mixed methods Scoping review Systematic review Meta-analysis Unknown
Publication type	Journal Book Website Conference proceedings Unpublished Other (specify)
Keywords	Key words used by author/s
Context	Study setting or country
Type of maternal healthcare	Antenatal (specify) Labour & Delivery (specify) Post-natal (specify)
Definition of maternal healthcare acceptability	Author/s apply/s the definition of healthcare acceptability in general: Yes (if yes, specify) No
Type of interactions with the mothers	Mothers-community interactions Mothers-health provider interactions • Mothers-health systems/policy interactions
Components of mothers-community interactions	Support from husband or partner (yes or no) Support from family (yes or no) Support from community (yes or no) Other (specify)
Components of mothers- health provider interactions	Language barrier Respecting privacy Assistance in labour Talking to health worker in private Busy health worker Being shouted at Being hit, slapped or pinched Health worker not respecting other patients Health worker not respecting me Other (specify)
Components of mothers- health systems and policy interactions	Dirty facilities Satisfied with received services Allowed to have companion during labour Referred for follow up care Informed about child-care grant Other (specify)
Practical implications	Yes (if yes; specify) No
Comments	
Conclusion	Maternal healthcare acceptability Proxy term

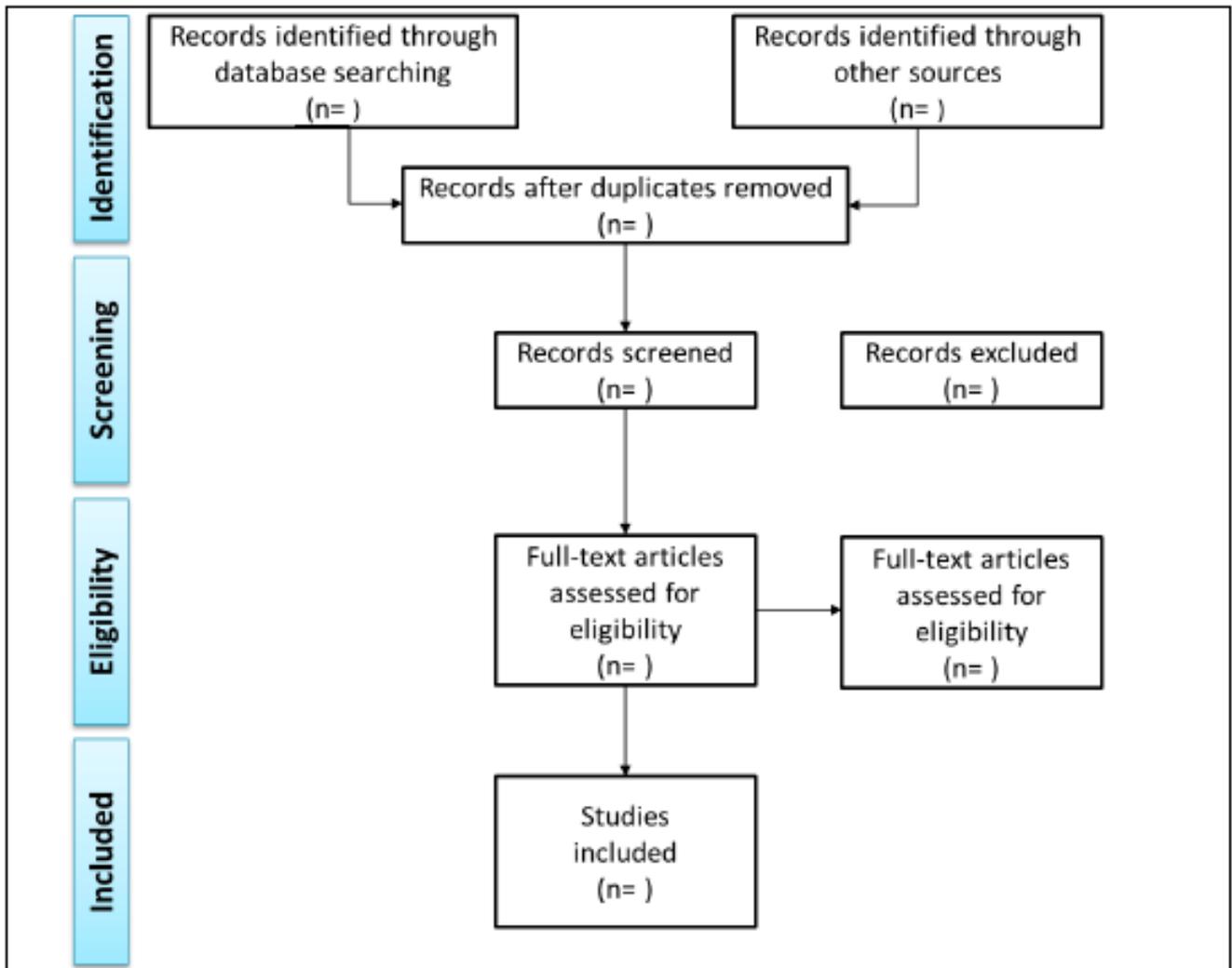


Figure 1. PRISMA-ScR flow diagram.

Regarding the definition, the research team will draw from those results to choose or propose a more practical definition of maternal healthcare acceptability and ask experts whether they agree with the research team or not (Questionnaire 1). Concerning the conceptual framework, the research team will draw from the results to select or propose more shared components of each construct, and more practical conceptual framework of maternal healthcare acceptability, then ask the experts panels whether they agree with them or not (Questionnaire 1).

For research question 2 we plan to summarize contextual findings related to geographical context and assess any contextual understanding of maternal healthcare acceptability from included material. Based on those results, the research team will make some assertions related to contextual understanding of maternal health-

care acceptability and ask experts whether they agree with them or not (Questionnaire 1).

For research question 3 we plan to summarize practical implications of maternal healthcare acceptability identified from included articles and or recommended by the panel of experts.

Experts will have opportunity to make comments and suggestions, on every survey round, that will be considered in the subsequent questionnaires, and the cycle will continue till there will be 80% consensual agreement on selected items responding to the three research questions. Validation of consensual results will end the consultation exercise with experts (Figure 2) and the results will be presented under broad three categories namely: consensual validated results; consensual but not validated results; and non-consensual results.

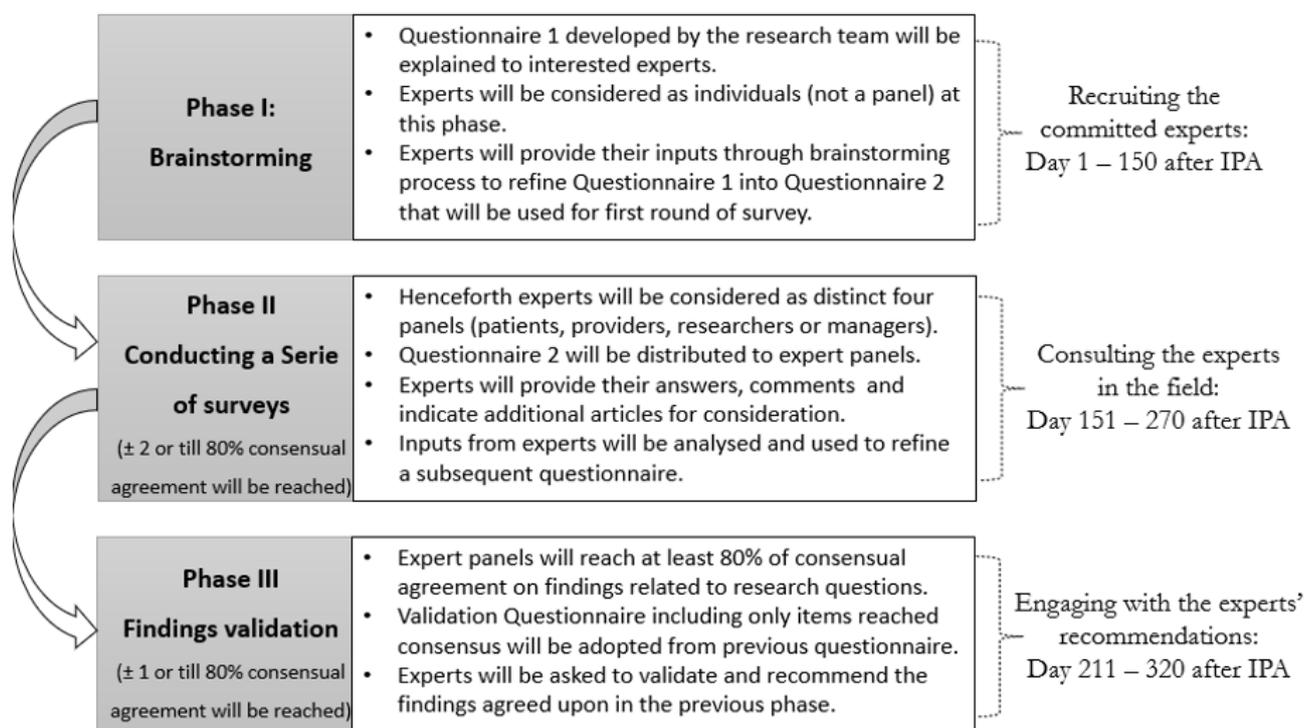


Figure 2. Delphi surveys administration process.

Ethics and dissemination

This study will be conducted under an approved ethics certificate and in principle acceptance (IPA) issued by Meta-Psychology. The results will be presented at relevant conferences and published in a peer-reviewed journal.

Logistics and time schedule

Thoughtful logistics and time schedule have been put in place to ensure smooth implementation of this project. These include project management timetable and action plan.

Project management timetable. The PI had an idea to write a protocol article on scoping review and to submit it for registered report in April 2021. Two researchers were recruited to work on this project via Tuks Undergraduate Research Forum (TURF), University of Pretoria in May 2021. The PI and the two researchers attended a workshop on evidence synthesis including scoping review and a seminar on screening and study selection. Those training sessions were organised in May and June 2021 by the Office of the Deputy Dean of Research and Postgraduate Studies, Faculty of Health Sciences. The PI continued to train those two researchers over the course of July 2021 on how to effectively perform search on different electronic

databases and how to use Endnote. The Gantt chart (Figure 3) illustrates the project management timetable (in days) once IPA is approved.

Action plan. It is expected that this project will be completed within 350 days after the IPA is granted. Table 5 portrays action plan.

Discussion

This study aims at identifying the gaps in literature on acceptability of maternal healthcare, exploring the conceptual understanding and implication practices of maternal healthcare acceptability in the context of South Africa and around the globe. Thus, scoping review is an appropriate method to answer the broad questions of this research (Armstrong et al., 2011). The process will provide the current understanding of how acceptability of maternal care is defined and conceptualised. The main results will be summarised in line with eligibility criteria (population-concept-context) and will be discussed in line with available evidence on the topic (Dijkers, 2015). The discussion of the findings will consider the relevance of key stakeholders (patients, communities, providers and health managers or policy makers). Involvement of experts through a consultation exercise will enhance the relevance of practical considerations (Arksey & O'Malley, 2005). The discussion will provide a general interpretation of the results with

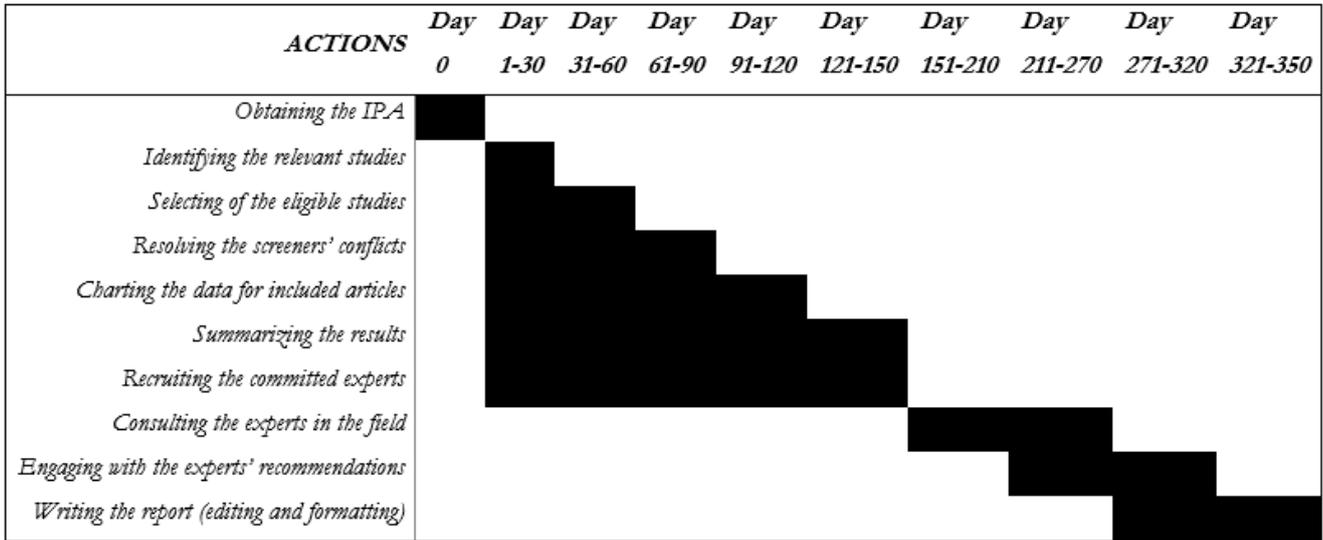


Figure 3. Project management timetable (Gantt chart).

Table 5
Action Plan.

Actions	Responsible	Days	Supervisor
Identifying relevant studies	Two researchers and PI	30	PI and IS
Selection of eligible studies	Two researchers	30	PI and IS
Charting the data	Two researchers	120	PI and IS
Summarizing the results	PI	150	Supervisors
Consultation exercise	PI	120	PI and Supervisors
Writing the report	All co-authors	80	PI

respect to the review questions and objectives. The authors will suggest the next steps such as undertaking systematic review and/or meta-analysis studies informed by the findings from this review.

Strengths and limitations

Strengths. Scoping review is a suitable evidence synthesis method to answer broad research questions as in this particular study. A thoughtful and rigorous protocol with clear stages will guide implementation of this project to reach the study objectives. Eligibility criteria, search strategy and data charting form have been pre-defined to avoid bias. We will apply scoping review as a transparent and replicable way to review a body of evidence to identify the gaps in the literature and shed some light on how maternal healthcare acceptability is defined and conceptualised in South Africa and around the globe. This method is appropriate to ascertain implication practices from acceptability of maternal healthcare concept and suggest future research studies such as systematic review or meta-analysis to investigate a more narrow aspect of this concept.

Limitations. This study is conditional on Ethics Approval Reference No: No: 545/2019 for a PhD research project excluding young pregnant women aged less than 18 years old. Thus, studies on acceptability related to pregnancy, delivery and post-partum in teenagers will be excluded in this scoping review. This will result in exclusion of critical information on acceptability of healthcare acceptability in pregnant adolescents. Another limitation is to omit studies on acceptability of maternal healthcare published in languages other than English. This may result in elimination of important studies on this topic.

Data Availability

To ensure transparency and reproducibility, all data generated or analysed during this study will be included in the published scoping review article. This will include a list of included and excluded articles with reasons for excluding studies, searching database and excel spreadsheet of charted data.

Reporting Guidelines

The reporting and mapping of the body of literature will be consistent with the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) to align the selection of relevant articles with the research objectives (Liberati et al., 2009).

Author Contact

Joy Blaise Bucyibaruta: Email: u19375370@tuks.co.za; ORCID: 0000-0002-6530-4342
 Leah Maidment: Email: u18008799@tuks.co.za; ORCID: 0000-0002-1075-2543
 Carl August Daniel Heese: Email: u19020512@tuks.co.za; ORCID: 0000-0002-8429-4178
 Mmapheko Doriccah Peu: Email: doriccah.peu@up.ac.za; ORCID: 0000-0002-1585-2404
 Lesley Bamford: Email: lesley.bamford@health.gov.za; ORCID: 0000-0002-5788-4308
 Annatjie Elizabeth van der Wath: Email: annatjie.vanderwath@up.ac.za; ORCID: 0000-0001-5117-9272
 Estelle Grobler: Email: estelle.grobler@up.ac.za; ORCID: 0000-0002-2992-312X
 Alfred Musekiwa: Email: alfred.musekiwa@up.ac.za; ORCID: 0000-0001-5880-3680
 Corresponding author: Joy Blaise Bucyibaruta, telephone: (+27) 739 160 808; email: u19375370@tuks.co.za

Acknowledgments

We would like to acknowledge the University of Pretoria, Faculty of Health Sciences for ethical approval and other supports to effectively conduct this study. Special thanks to the Tuks Undergraduate Research Forum (TURF) for recruiting independent researchers and to the Office of Deputy Dean: Research and Postgraduate Studies for organising training on evidence synthesis and use of Rayyan software. Many thanks to Dr Cheryl Tosh for manuscript editing and formatting.

Conflict of Interest and Funding

Authors declare no conflict of interest and no grant received for this article.

Author Contributions

Dr Joy Blaise Bucyibaruta is the PI and corresponding author. He is the project administrator, and he was involved in conceptualization, data curation, formal analysis, investigation, methodology, writing — original draft preparation, and subsequent corrections —, editing, formatting and approval of article submission. Ms Leah Maidment and Mr Carl Heese are the co-authors of this study. They have been recruited to get involved in the literature search, level one and two screening, data charting, proof-reading and approval of article submission. Prof Doriccah Peu and Prof Lesley Bamford read an article as the PI's supervisors. They also provided some suggestions on how to improve the article. Prof Annatjie van der Wath read an article as an external researcher and provided some suggestions on how to improve the article Ms Estelle Grobler is an information specialist, and she has been recruited to get be involved in the literature search. She will also assist the PI to resolve the conflicts in screening between the two researchers to ensure the search reliability. Prof Alfred Musekiwa was appointed as a supervisor with experience in evidence synthesis to guide the entire scoping review project. The author names order connects to the contribution by ranked order.

References

- Al-Mujtaba, M., Shobo, O., Oyebola, B. C., Ohemu, B. O., Omale, I., Shuaibu, A., & Anyanti, J. (2020). Assessing the acceptability of village health workers' roles in improving maternal health care in Gombe State, Nigeria a qualitative exploration from women beneficiaries. *PLoS one*, *15*(10), e0240798.
- Alderdice, F., McNeill, J., & Lynn, F. (2013). A systematic review of systematic reviews of interventions to improve maternal mental health and well-being. *Midwifery*, *29*(4), 389-399.
- Arksey, H., & O'Malley, L. (2005). Scoping studies: towards a methodological framework. *International journal of social research methodology*, *8*(1), 19-32.
- Armstrong, R., Hall, B. J., Doyle, J., & Waters, E. (2011). Cochrane Update. 'Scoping the scope' of a cochrane review. *J Public Health (Oxf)*, *33*(1), 147-150. doi:10.1093/pubmed/fdr015
- Balde, M. D., Bangoura, A., Sall, O., Balde, H., Niakate, A. S., Vogel, J. P., & Bohren, M. A. (2017). A qualitative study of women's and health providers' attitudes and acceptability of mistreatment during childbirth in health facilities in Guinea. *Reproductive health*, *14*(1), 1-13.
- Bucyibaruta, B. J., Eyles, J., Harris, B., Kabera, G., Oboirien, K., & Ngyende, B. (2018). Patients' perspectives of acceptability of ART, TB and maternal health services in a subdistrict of Johannesburg, South Africa. *BMC health services research*, *18*(1), 1-15.
- Cameron, S. T., Craig, A., Sim, J., Gallimore, A., Cowan, S., Dundas, K., . . . Lakha, F. (2017). Feasibility and acceptability of introducing routine antenatal contraceptive counselling and provision of contraception after delivery: the APPLES pilot evaluation. *Bjog*, *124*(13), 2009-2015. doi:10.1111/1471-0528.14674
- Cummins, A., Griew, K., Devonport, C., Ebbett, W., Catling, C., & Baird, K. (2021). Exploring the value and acceptability of an antenatal and postnatal midwifery continuity of care model to women and midwives, using the Quality Maternal Newborn Care Framework. *Women and Birth*.
- Damanhoury, S., Newton, A., Rashid, M., Hartling, L., Byrne, J., & Ball, G. (2018). Defining metabolically healthy obesity in children: a scoping review. *Obesity Reviews*, *19*(11), 1476-1491.
- Dijkers, M. (2015). What is a scoping review? *KT Update*, *4*(1).
- Dillip, A., Alba, S., Mshana, C., Hetzel, M. W., Lengeler, C., Mayumana, I., . . . Obrist, B. (2012). Acceptability—a neglected dimension of access to health care: findings from a study on childhood convulsions in rural Tanzania. *BMC health services research*, *12*(1), 1-11.
- Donabedian, A. (1993). Quality in health care: Whose responsibility is it? *American Journal of Medical Quality*, *8*(2), 32-36.
- Donabedian, A. (2002). *An introduction to quality assurance in health care*. Oxford University Press.
- Dyer, T. A., Owens, J., & Robinson, P. G. (2016). The acceptability of healthcare: from satisfaction to trust. *Community Dent Health*, *33*(4), 242-251.
- Falzarano, M., & Zipp, G. P. (2013). Seeking consensus through the use of the Delphi technique in health sciences research. *Journal of allied health*, *42*(2), 99-105.
- Feinberg, E., Smith, M. V., & Naik, R. (2009). Ethnically diverse mothers' views on the acceptability of screening for maternal depressive symptoms during pediatric well-child visits. *Journal of health care for the poor and underserved*, *20*(3), 780.
- Gilson, L. (2007). *Acceptability, Trust and Equity*. Cambridge University Press.
- Grant, M., Wilford, A., Haskins, L., Phakathi, S., Mntambo, N., & Horwood, C. M. (2017). Trust of community health workers influences the acceptance of community-based maternal and child health services. *African Journal of Primary Health Care and Family Medicine*, *9*(1), 1-8.
- Hadfield, H., & Wittkowski, A. (2017). Women's Experiences of Seeking and Receiving Psychological and Psychosocial Interventions for Postpartum Depression: A Systematic Review and Thematic Synthesis of the Qualitative Literature. *J Midwifery Womens Health*, *62*(6), 723-736. doi:10.1111/jmwh.12669
- Hausmann-Muela, S., Ribera, J. M., & Nyamongo, I. (2003). Health-seeking behaviour and the health system response. Disease Control Priorities Project working paper No14.
- Kozarewicz, P. (2014). Regulatory perspectives on acceptability testing of dosage forms in children. *International journal of pharmaceutics*, *469*(2), 245-248.
- Kyei-Nimakoh, M., Carolan-Olah, M., & McCann, T. V. (2017). Access barriers to obstetric care at health facilities in sub-Saharan Africa—a systematic review. *Systematic reviews*, *6*(1), 1-16.

- Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P., . . . Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: explanation and elaboration. *Journal of clinical epidemiology*, *62*(10), e1-e34.
- McIntyre, D., Thiede, M., & Birch, S. (2009). Access as a policy-relevant concept in low- and middle-income countries. *Health Econ Policy Law*, *4*(Pt 2), 179-193. doi:10.1017/s1744133109004836
- Murphy, A. L., & Gardner, D. M. (2019). Pharmacists' acceptability of a men's mental health promotion program using the Theoretical Framework of Acceptability. *AIMS Public Health*, *6*(2), 195-208. doi:10.3934/publichealth.2019.2.195
- Nasa, P., Jain, R., & Juneja, D. (2021). Delphi methodology in healthcare research: How to decide its appropriateness. *World Journal of Methodology*, *11*(4), 116.
- Påfs, J., Musafili, A., Binder-Finnema, P., Klingberg-Allvin, M., Rulisa, S., & Essén, B. (2015). 'They would never receive you without a husband': paradoxical barriers to antenatal care scale-up in Rwanda. *Midwifery*, *31*(12), 1149-1156.
- Penchansky, R., & Thomas, J. W. (1981). The concept of access: definition and relationship to consumer satisfaction. *Medical care*, 127-140.
- Pham, M. T., Rajić, A., Greig, J. D., Sargeant, J. M., Papadopoulos, A., & McEwen, S. A. (2014). A scoping review of scoping reviews: advancing the approach and enhancing the consistency. *Research synthesis methods*, *5*(4), 371-385.
- Rothstein, J. D., Jennings, L., Moorthy, A., Yang, F., Gee, L., Romano, K., . . . LeFevre, A. E. (2016). Qualitative assessment of the feasibility, usability, and acceptability of a mobile client data app for community-based maternal, neonatal, and child care in rural Ghana. *International journal of telemedicine and applications*.
- Russell, D. J., Humphreys, J. S., Ward, B., Chisholm, M., Buykx, P., McGrail, M., & Wakerman, J. (2013). Helping policy-makers address rural health access problems. *Aust J Rural Health*, *21*(2), 61-71. doi:10.1111/ajr.12023
- Russell, D. J., Humphreys, J. S., Ward, B., Chisholm, M., Buykx, P., McGrail, M., & Wakerman, J. (2013). Helping policy-makers address rural health access problems. *Australian Journal of Rural Health*, *21*(2), 61-71.
- Sekhon, M., Cartwright, M., & Francis, J. J. (2017). Acceptability of healthcare interventions: an overview of reviews and development of a theoretical framework. *BMC health services research*, *17*(1), 1-13.
- Sekhon, M., Cartwright, M., & Francis, J. J. (2018). Acceptability of health care interventions: A theoretical framework and proposed research agenda. In: Wiley Online Library.
- Shaw, R. L., Larkin, M., & Flowers, P. (2014). Expanding the evidence within evidence-based healthcare: thinking about the context, acceptability and feasibility of interventions. *BMJ Evidence-Based Medicine*, *19*(6), 201-203.
- Silal, S. P., Penn-Kekana, L., Harris, B., Birch, S., & McIntyre, D. (2012). Exploring inequalities in access to and use of maternal health services in South Africa. *BMC Health Serv Res*, *12*, 120.
- Sripad, P., Warren, C. E., Hindin, M. J., & Karra, M. (2019). Assessing the role of women's autonomy and acceptability of intimate-partner violence in maternal health-care utilization in 63 low-and middle-income countries. *International journal of epidemiology*, *48*(5), 1580-1592.
- Staneva, A. A., Bogossian, F., & Wittkowski, A. (2015). The experience of psychological distress, depression, and anxiety during pregnancy: A meta-synthesis of qualitative research. *Midwifery*, *31*(6), 563-573.
- Staniszewska, S., Crowe, S., Badenoch, D., Edwards, C., Savage, J., & Norman, W. (2010). The PRIME project: developing a patient evidence-base. *Health Expect*, *13*(3), 312-322. doi:10.1111/j.1369-7625.2010.00590.x
- Traylor, C. S., Johnson, J., Kimmel, M. C., & Manuck, T. A. (2020). Effects of psychological stress on adverse pregnancy outcomes and non-pharmacologic approaches for reduction: an expert review. *American Journal of Obstetrics & Gynecology MFM*.
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., . . . Weeks, L. (2018). PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. *Annals of internal medicine*, *169*(7), 467-473.
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K., Colquhoun, H., Kastner, M., . . . Wilson, K. (2016). A scoping review on the conduct and reporting of scoping reviews. *BMC medical research methodology*, *16*(1), 1-10.