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Mapping the scientific literature on obstetrical and perinatal health among sexual and gender minoritised (SGM) childbearing people and their infants: a scoping review protocol

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ABSTRACT

Introduction Sexual and gender minoritised (SGM) populations are disproportionately impacted by multilevel risk factors for obstetrical and perinatal outcomes, including structural (eg, stigma, discrimination, access to care) and individual risk factors (eg, partner violence, poor mental health, substance use). Emerging evidence shows SGM childbearing people have worse obstetrical outcomes and their infants have worse perinatal outcomes, when compared with their cisgender and heterosexual counterparts; this emerging evidence necessitates a comprehensive examination of existing literature on obstetrical and perinatal health among SGM people. The goal of this scoping review is to comprehensively map the extent, range and nature of scientific literature on obstetrical and perinatal physical health outcomes among SGM populations and their infants. We aim to summarise findings from existing literature, potentially informing clinical guidelines on perinatal care, as well as highlighting knowledge gaps and providing directions for future research.

Methods and analysis We will follow the Joanna Briggs Institute (JBI) scoping review framework and report findings according to the PRISMA Extension for Scoping Reviews (PRISMA-ScR) guidelines. We will conduct a broad systematic search in Medline/PubMed, Embase, CINAHL and Web of Science Core Collection. Eligible studies will include peer-reviewed, empirical, English-language publications pertaining to obstetrical and perinatal physical health outcomes of SGM people or their infants. No temporal or geographical limitations will be applied to the search. Studies conducted in all settings will be considered. Records will be managed, screened and extracted by two independent reviewers. Study characteristics, key findings and research gaps will be presented in tables and summarised narratively.

Ethics and dissemination Ethical approval is not required as primary data will not be collected. The findings of this scoping review will be disseminated through a peer-reviewed journal and conference presentations.

Protocol registration Open Science Framework https://osf.io/6fg4a/.

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ To the best of our knowledge, this scoping review is the first to focus on the obstetrical and perinatal physical health outcomes of sexual and gender minoritised (SGM) people and their infants.
- ⇒ Both advancing health and eliminating disparities among SGM populations as well as improving pregnancy outcomes among health disparity populations are current research priorities at the National Institutes of Health (NIH).
- ⇒ Our review protocol adheres to rigorous scoping review methodologies, including registering the protocol a priori (https://osf.io/6fg4a/), developing the search strategy and review questions through team-based collaborative process with an information specialist and having multiple reviewers screen and extract records independently at every stage of the process.
- ⇒ This review may miss studies not written in English or those not published in peer-reviewed journals (eg, dissertations, book chapters, etc).

INTRODUCTION

Rationale

Sexual and gender minoritised (SGM) people are a heterogenous population that comprise diverse sexual and gender identity groups, including but not limited to individuals that identify as lesbian, bisexual, transgender, queer, non-binary, asexual and Two-Spirit. The size of the population who identify as an SGM person in the USA have increased to 7.2% over the last decade.[1] This trend has been driven by younger generations, the same generations who are increasingly desiring biological pathways to family formation (eg, via pregnancy).[2] Although SGM subpopulations are not a monolithic group, SGM people share a similar experience of being disproportionately impacted by social and structural determinants of health (eg, poverty, discriminatory policies, stigma, access to care barriers) that drive adverse health behaviours (eg, binge drinking, substance use) and health disparities (eg, obesity, poor mental health, and overall health).[3] Many of these experiences, behaviours and outcomes are known to increase the risk for adverse health outcomes during the perinatal period, defined as the time from conception through 12 months after birth, which presents unique risks for this growing childbearing population and their infants.

Despite the known risk factors influencing pregnancy and birthing outcomes in the perinatal period, much of the existing SGM-related research on the pregnancy and childbirth continuum has focused on preconception health disparities and adverse health behaviours during pregnancy among cisgender sexual minority women. Studies reveal an increased likelihood of preconception depression, sexually transmitted infections, binge drinking, substance use,[4] smoking during pregnancy[5] and intimate partner violence prior to and during pregnancy among cisgender sexual minority women.[6] Unfortunately, scant research has explored preconception and pregnancy-related experiences, behaviours and health outcomes among transgender and gender-diverse populations.

Furthermore, the majority of peer-reviewed published literature on this topic had used qualitative methods[7] or focused on mental health outcomes predominantly in small, convenience samples.[8] This is largely due to data collection limitations, specifically the lack of sexual orientation and gender identity data in national datasets, public health registries and electronic medical record systems.[9–11] Limited data make it difficult to elucidate obstetrical and perinatal health outcomes among SGM populations. As a result, we cannot appropriately allocate resources and provide quality, clinical care that is evidence based and culturally competent. However, the recent and growing inclusion of sexual orientation and gender identity variables among data collection systems[12] is allowing the documentation of these outcomes for the first time at the population level.

Preliminary evidence shows striking disparities in adverse obstetrical and perinatal outcomes among cisgender sexual minority women relative to cisgender heterosexual women. Several studies have utilised the National Longitudinal Study of Adolescent to Adult Health to elucidate obstetrical and perinatal health disparities and found that state-level non-discrimination laws and family planning policies contribute to lower levels of preterm birth and low birthweight infants.[13 14] Race and ethnicity have also been found to play a moderating role in these outcomes among sexual minority women,[15] with another study finding similar effects using the National Survey of Family Growth[16] and a third study examining its impact on pregnancy-related hypertension.[17] Two studies have used birth certificate data in Massachusetts[18] and California[19] to investigate obstetrical and perinatal outcomes among SGM people, with the latter study demonstrating several obstetrical and perinatal disparities among individuals with same-sex partners compared with those with different-sex partners. Although results differ slightly between studies, there is growing evidence of disparities among cisgender sexual minority women in terms of hypertension, miscarriage, preterm birth, delivery outcomes, postpartum haemorrhage, severe morbidity and low birthweight infants. While this emerging research has included sexual minority cisgender women, even less is known about the obstetrical and perinatal health of transgender and gender-diverse people and their infants. Additionally, despite emerging evidence, perinatal care guidelines[20 21] and calls for action to address disparities lag behind the rapidly growing knowledge base. This is in part due to the lack of a comprehensive synthesis of existing evidence on the topic.

Among the reviews conducted to date among SGM perinatal populations, topics have focused on perinatal mental health,[8] gynaecological health,[22] traumatic birth experiences,[23] general childbearing experiences[7 24 25] and perinatal healthcare experiences.[26–36] Many of these reviews do not follow PRISMA or other guidelines for rigorous reviews. Consequently, a rigorous scoping review that comprehensively maps current knowledge and gaps in research on the physical health outcomes of SGM childbearing parents and their infants is novel and warranted. Such work would enhance our understanding of obstetrical and perinatal health disparities among this population and guide action towards improving health outcomes.

Scoping review objectives

The goal of this scoping review is to (1) map the extent, range and nature of scientific literature on obstetrical and perinatal physical health outcomes among SGM people and their infants, (2) summarise and synthesise existing evidence and (3) identify priority areas for future research and inform potential intervention.

Review question

What is known regarding obstetrical and perinatal physical health outcomes for sexual and gender minoritised people and their infants?

METHODS AND ANALYSIS

This scoping review will be conducted in accordance with the latest Joanna Briggs Institute (JBI) methodology for scoping reviews developed by Peters *et al*[37] based on the original scoping review framework developed by Arksey and O'Malley and expanded by Levac *et al*.[38] In addition, the PRISMA Extension for Scoping Reviews (PRISMA-ScR) guideline and checklist were used along with JBI's scoping review framework in developing this protocol and will be used to guide the rest of the review.[39] The review question, as well as the inclusion and exclusion criteria, was developed through an iterative process with conversations between the study team and subject matter experts using the Population-Concept-Context (PCC) framework.[37] Our research question, eligibility criteria, search strategy and all components of this protocol were developed a priori and registered on Open Science Framework prior to conducting our search (https://osf.io/6fg4a/).

Eligibility criteria

Populations

This scoping review will focus on studies involving at least one of two populations: (1) SGM childbearing people and/or (2) their infant(s). Although terminology is constantly evolving, we define SGM populations within this review as individuals who identify as lesbian, gay, bisexual, transgender, queer, nonbinary, asexual or Two-Spirit. Samples defined by same-sex behaviours, partners or attractions are also included. Intersex people will not be included in our search as their childbearing experiences are likely unique from other SGM populations and warrant a separate, focused investigation.

Concept

Studies that report any obstetrical or perinatal-related physical health outcomes for the population(s) of interest will be eligible for inclusion. Specifically, we will include obstetrical and perinatal morbidity and mortality outcomes from the time of conception up to 12 months after birth (ie, what we call the perinatal period). Preconception or parenting (beyond 12 months after birth) health outcomes will be excluded unless studies present disaggregated data between the perinatal period and other time points. Detailed descriptions and definitions of obstetrical and perinatal physical health outcomes are delineated in online supplemental appendix 1.[40–46]

Context

No temporal or geographical limitations will be placed on the search, and studies conducted in all settings will be considered.

Information sources

This scoping review will consider all peer-reviewed, empirical research studies with quantitative, qualitative or mixed-methods research designs. Non-peer-reviewed publications and studies that are non-empirical will be excluded. Only publications in English will be considered as our team has limited proficiency in other languages. Table 1 provides an overview of our inclusion and exclusion criteria.

Search strategy

Search terms and search strategies were developed through a team-based collaborative process with a librarian. A preliminary search in PubMed and CINAHL was conducted to identify relevant articles and reviews. Controlled vocabulary terms and keywords identified in the records for those articles, in conjunction with NCBI's MeSH database and the EMTREE tool in Embase, were used to formulate a broad, systematic search strategy (see online supplemental appendix II). This strategy, aimed to comprehensively identify literature with any physical health outcomes of SGM childbearing people and their infants, will be conducted in Medline/PubMed, Embase, CINAHL and Web of Science Core Collection. The included search strategy (seen in online supplemental appendix II) will be adapted for each database searched.

Study/source of evidence selection

Following the searches, all identified records will be exported into the EndNote software (Clarivate), where duplicates will be removed using Deduklick (Risklick). Remaining records will then be imported into Covidence, a systematic review managing software, for record management and screening. We will conduct a pilot test screening for the first 100 records using the inclusion and exclusion criteria stated above to ensure inter-rater and intrarater reliability. Pilot test screening will be conducted in batches of 10; inter-rater and intrarater reliability will

Table 1 Inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
English language	Another language than English
Human studies	Animal studies
Peer-reviewed publications	Non-peer-reviewed publications
Empirical research studies (quantitative, qualitative or mixed methods)	Non-empirical research studies (ie, commentaries, editorials, book chapters, clinical guidelines, etc)
Sample includes either (1) any sexual and/or gender minoritised people or (2) their infants and has at least one finding specific to either of those populations	Sample does not include (1) any sexual and/or gender minority people or (2) their infants and does not have any finding specific to those populations
Includes one or more obstetric and perinatal physical health outcome(s) (see online supplemental appendix 1 for a comprehensive list)	Does not include at least one obstetric and perinatal physical health outcome
Outcome(s) are specific to the perinatal period (ie, time of conception through 12 months after birth)	Outcome(s) are not specific to the perinatal period, or perinatal outcomes are not disaggregated from outcomes outside of the perinatal period

be assessed after each batch of test screening. Once a high level of inter-rater reliability has been established (defined as a kappa value of 0.81–1.00), formal screening of titles, abstracts and full-text articles will start. Multiple team members will independently screen articles for inclusion with at least two members screening each article. Any disagreements that arise between reviewers at each stage of the screening process will be resolved through consensus-based team discussion. The results of the search and screening process will be reported in the final scoping review and presented in a Preferred Reporting Items for Systematic Reviews and Meta-analyses extension for scoping review (PRISMA-ScR) flow diagram.

Data extraction and management

A standardised data extraction instrument modified from JBI's standardised data extraction form has been jointly developed by the team to extract data on study characteristics, study population characteristics, study results and key findings (online supplemental appendix III). For study characteristics, we will extract data on author, year of publication, country/location(s), study design and methods and study settings. For study population characteristics, we will extract data on study populations' sexual orientation, gender identity/gender expression, assigned sex at birth, age, race/ethnicity, socioeconomical status, relationship status, period/time outcomes assessed (eg, second trimester) and data on comparator sample, if applicable. If data in any of these categories are not available, we will note that and report that in the descriptive summary (eg, x studies did not disaggregate data by race/ethnicity). Finally, we will extract data on topic(s) and physical health outcome(s) assessed and the self-reported strengths and limitations of the studies.

Data will be independently extracted from included papers by two or more independent reviewers using this form in Covidence. The form may be modified and revised iteratively during the data extraction process to reflect emerging data deemed important to report. Modifications will be detailed in the published scoping review. Any disagreements that arise between reviewers will be resolved through consensus-based team discussion. Authors of papers will be contacted to request missing or additional data, where required.

Data analysis and presentation

Data extracted from included studies will be presented in three separate tables: (1) study characteristics, (2) study population characteristics and (3) study outcomes and key findings. We will descriptively map and summarise the results, qualitative themes and supporting evidence to answer our review objective(s) and questions in both narrative and tabular formats. Due to the nature of scoping reviews, we will not attempt to critically appraise nor assess risk of bias of individual studies. This approach is aligned with JBI's scoping review manual and PRISMA-ScR's reporting guidelines.

For studies with quantitative data, we will conduct basic descriptive analysis that examines the frequency of extracted data described in the section above, such as frequency counts of study locations, populations, specific obstetrical and perinatal outcomes, etc. For studies with qualitative data, we will utilise a qualitative coding software, such as NVivo, to conduct a descriptive qualitative content analysis to provide a summary of study themes and outcomes examined of the included literature.[47] Descriptive coding analysis will be conducted through an iterative hybrid approach. We will first utilise the principles of framework synthesis and deductively code studies to a list of a priori codes that were jointly developed by the team guided by our review question and background literature.[48–50] If additional outcomes or themes in the reviewed literature cannot be captured by codes from the predetermined framework, we will inductively code those emergent outcomes to ensure all relevant themes are captured.

Patient and public involvement

Patients or the public were not involved in the design, or conduct, or reporting, or dissemination plans of our research as it was not appropriate or possible to do so.

DISCUSSION

There are a few limitations to our protocol. First, due to limitations in resources for translation, we will only include studies that are written in English, so we may miss studies that are published in other languages. Second, we elected to exclude non-peer-reviewed and non-empirical research studies, so we may miss commentaries, editorials, book chapters, clinical guidelines, etc; such work can provide relevant insights to our topic, but due to the nature of our research question, we consider this an appropriate trade-off. One of the major strengths of our study is the rigour of our methods that allows systematic mapping of existing evidence. The results of our scoping review will be able to inform clinicians and policymakers on obstetrical and perinatal care guidelines, as well as highlight knowledge gaps and provide directions for future research.

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Contributors AKH led the design and conceptualisation of this review protocol, assembled the team, worked with team members to develop review question, drafted protocol rationale, determined inclusion/exclusion criteria and developed

search strategy and data extraction sheet. KRSS and BMC supported the conceptualisation and development of the review topic, co-wrote the introduction and provided critical feedback and editing to the final protocol and manuscript. LC contributed background research, supported drafting of the protocol rationale and formatting and managed references. ARS, MFEH and SS contributed to designing and drafting the methods and analysis section of the protocol. CMcL and ABJ contributed background research and supported drafting of the protocol rationale. CM developed search terms and search strategies and provided feedback for protocol draft.

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