

Review methods were amended after registration. Please see the revision notes and previous versions for detail.

## Citation

Maria Raisa Jessica Aquino, Judith Rankin, Malcolm Moffat, Nicola Heslehurst, Emer Cullen, Simon Barrett. Parents' health-protective behaviours and infant care practices during pandemics: a systematic review. PROSPERO 2020 CRD42020197799 Available from: [https://www.crd.york.ac.uk/prospero/display\\_record.php?ID=CRD42020197799](https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42020197799)

## Review question

How do expectant or new parents care for infants at home in the context of pandemics?

What are expectant or new parents' (i.e., mother and partner) health-promoting behaviours (e.g., diet, physical activity, smoking) throughout the perinatal period (i.e., pregnancy up to 1 year postpartum), during pandemics?

## Searches

Published literature from inception until July 2020 will be sought from the following databases: MEDLINE, EMBASE, CINAHL, PsycINFO and Cochrane Central Register of Controlled Trials (CENTRAL). A MEDLINE search strategy will be developed and tailored for other databases, and checked by an information scientist (HO). Additionally, the PROSPERO as well as COVID-19-specific databases will be searched for relevant records: Covid-19 Evidence Reviews; Cochrane Covid-19 Study Register, and Covid-19 Living Evidence. To supplement database searches, reference lists of included records, websites (e.g. Royal College of Obstetricians and Gynaecologists [RCOG], American College of Obstetricians and Gynecologists [ACOG], Royal Australian and New Zealand College of Obstetricians [RANZCOG], Institute of Health Visiting [IHV], Royal College of Midwives [RCM], World Health Organization [WHO]) and topic-specific journals (e.g., Midwifery, International Journal of Nursing Studies, Journal of Health Visiting, Psychology and Health) will be hand-searched for additional studies for assessment for inclusion. No language restriction will be applied.

The search strategy will use the following key terms: parents, newborns, pregnancy, behaviour, and pandemic.

## Types of study to be included

All study designs (qualitative and quantitative) will be eligible for inclusion.

## Condition or domain being studied

Adult health-protective behaviours and infant care behaviours in the context of pandemics

## Participants/population

Parents at least 18 years old from any ethnicity or gender who were pregnant or had children less than 1 year old during a pandemic. Studies involving birth parents, adoptive parents and formal caregivers will be eligible for inclusion. Studies involving women who were pregnant during a pandemic will be eligible for inclusion. Parents below 18 years old will not be included in this rapid review because adolescent/teenage pregnancy involves different issues (e.g., increased vulnerabilities) requiring specialist support.

## Intervention(s), exposure(s)

Being an expectant/new parent and being pregnant or having children less than 1 year old during a pandemic (e.g. SARS-CoV-2, MERS, SARS, Ebola) is the primary exposure. Studies which outline preparations or interventions to support parents during pandemics will be eligible for inclusion.

## Comparator(s)/control

Dependent on study design, some (but not all) studies will have a comparator/control group.

## Context

Pregnancy continues amid infectious disease outbreaks, with expectant and new parents as well as

healthcare professionals adapting to rapidly changing services and public health protection measures (e.g. quarantine or lockdown). Experiencing pregnancy and childbirth during pandemics could have an impact on parents' personal health behaviours and practices for taking care of infants or newborns. This rapid review aims to identify evidence on parents' health-promoting behaviours including infant care practices during pandemics.

### Main outcome(s)

Reported newborn and infant care practices during pandemics or epidemics such as infant feeding (in line with Baby Friendly Initiative), breastfeeding, skin-to-skin contact, co-sleeping, vitamin supplements, immunisation.

Reported parental health behaviours during pandemics or epidemics such as maternal and family diet, folic acid, vitamin supplements, physical activity, tobacco and alcohol use, mental health.

Parental health outcomes, e.g., breastfeeding, pregnancy or postpartum weight change, type 2 diabetes (T2D) or HbA1c, perinatal mental health.

Neonatal and infant health outcomes, e.g., infant mortality, birth weight, immunisation, prematurity, preterm birth.

### Measures of effect

Incidence rate percentages; frequencies; odds ratios/relative risk ratios for clinical (e.g. mortality, preterm birth) and health/wellbeing

### Additional outcome(s)

None.

### Measures of effect

Not applicable.

### Data extraction (selection and coding)

Search and selection: Identified records will be exported and managed on Zotero. After removing duplicates, titles and abstracts of remaining records from all search routes will be double-screened against the eligibility criteria, to minimise risk of selection bias. This will be followed by full-text screening by one reviewer, with a second reviewer reviewing 20% of full texts.

Data extraction: Data from included studies will be extracted by one researcher using a developed standardised form, with a second reviewer assessing a sample of the data (20%) extraction table for completeness and accuracy. This includes, but is not limited to investigators/authors, year of publication, setting, context, details of methods and data collection, participants, interventions, outcomes, results and conclusions. Data extraction will also be guided by Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) checklist items.

### Risk of bias (quality) assessment

The Mixed Methods Appraisal Tool developed by researchers at McGill University (MMAT; Hong et al., 2018) will be used to assess the quality of included studies, whether qualitative, quantitative or mixed methods. One reviewer will assess included studies for risk of bias/quality assessment, with a second reviewer assessing a sample of these (20%) for accuracy.

### Strategy for data synthesis

A narrative synthesis will be undertaken to characterise parents' infant or newborn care practices, as well as parents' personal health and wellbeing behaviours throughout the perinatal period in the context of pandemics. Preliminary stages of the synthesis will involve organising the extracted data through itemising, listing and tabulating results in order to systematically identify patterns within and between studies and variations across studies. A thematic analysis will then be undertaken, using established methods (Braun and Clarke, 2014), to formulate a summary of the relationships explored in the data.

### Analysis of subgroups or subsets

Where possible, sub-group analyses will be conducted by geographical area, ethnicity, and parity.

### Contact details for further information

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### Organisational affiliation of the review

Newcastle University  
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### Review team members and their organisational affiliations [3 changes]

Dr Maria Raisa Jessica Aquino. Newcastle University  
Professor Judith Rankin. Newcastle University  
Dr Malcolm Moffat. Newcastle University  
Dr Nicola Heslehurst. Newcastle University  
Dr Emer Cullen. Newcastle University  
Dr Simon Barrett. Newcastle University

### Collaborators

Hannah O'Keefe. Newcastle University

### Type and method of review [1 change]

Narrative synthesis, Systematic review, Other

### Anticipated or actual start date

13 July 2020

### Anticipated completion date [1 change]

31 March 2022

### Funding sources/sponsors

NIHR Applied Research Collaboration North East and North Cumbria

### Conflicts of interest

### Language

English

### Country

England

### Stage of review [2 changes]

Review Ongoing

### Subject index terms status

Subject indexing assigned by CRD

### Subject index terms

COVID-19; Child; Humans; Infant; Infant Care; Pandemics; Parents; Psychiatry

### Date of registration in PROSPERO

14 July 2020

### Date of first submission

10 July 2020

Stage of review at time of this submission [5 changes]

Stage	Started	Completed
Preliminary searches	Yes	Yes
Piloting of the study selection process	Yes	Yes
Formal screening of search results against eligibility criteria	Yes	Yes
Data extraction	Yes	Yes
Risk of bias (quality) assessment	Yes	Yes
Data analysis	Yes	No

Revision note

Updated title to reflect the review as a systematic review and added co-investigator

*The record owner confirms that the information they have supplied for this submission is accurate and complete and they understand that deliberate provision of inaccurate information or omission of data may be construed as scientific misconduct.*

*The record owner confirms that they will update the status of the review when it is completed and will add publication details in due course.*

Versions

14 July 2020  
01 October 2020  
20 November 2020  
02 August 2021  
26 January 2022  
04 February 2022  
15 February 2022