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Citation

Jennifer Lisa Sakamoto, Rogie Royce Carandang, Madhu Kharel, Akira Shibanuma, Ekaterina Yarotskaya, Milana Basargina, Masamine Jimba. Roles of mHealth interventions for maternal, newborn and child health in psychosocial and behavior change: A systematic review. PROSPERO 2020 CRD42020188975 Available from: https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42020188975

Review question

What are the roles of maternal, newborn, and child health-related mobile health (mHealth) interventions in psychosocial and behavior change among pregnant women, mothers, fathers, and health workers?

Searches

We will search the following electronic databases: PubMed/MEDLINE, Web of Science, CINAHL, PsycINFO, PsycARTICLES, Academic Search Complete, SocINDEX, Cochrane Central Register of Controlled Trials, DARE, NHS EED, HTA, and Grey Literature (WHO, CDC, ECDC, JICA, UNAIDS, among others). Additional studies will be hand searched from the reference lists of articles. We will include all published papers in the English language up till May 2020.

Our search strategy will combine both Medical Subject Headings (MeSH) terms and free text terms.

Search strategy

https://www.crd.york.ac.uk/PROSPEROFILES/188975_STRATEGY_20200528.pdf

Types of study to be included

Original research articles in all study designs such as randomized controlled trial (RCT), quasi-experimental, cohort, observational, cross-sectional, and other comparative studies as well as multiple case studies and evaluation reports will be included in the study. Case studies, letters, editorials, reviews, conference abstracts, and books will not be included.

Condition or domain being studied

Mobile health (mHealth) interventions for maternal, newborn, and child health (MNCH) are increasing worldwide. While there is evidence that these interventions improved MNCH outcomes, research has been restricted to pilot and small studies with limited generalizability. Moreover, little is known about the psychosocial and behavioral impact of mHealth interventions on different targeted groups.

The current study will examine the roles and utilization of mHealth to improve psychosocial and behavioral health among pregnant women, mothers, fathers, and health workers.

Participants/population

Participants will include pregnant women, mothers and fathers of children 0-5 years, and health workers.

Intervention(s), exposure(s)

The intervention of interest is mHealth interventions.

Inclusion criteria:

- The intervention should be mobile or tablet-based interventions, such as mobile applications (apps), games, short message service (SMS), among others.
- The intervention should be intended to improve at least one aspect of the psychosocial and behavioral

health of pregnant women, mothers and fathers of children 0-5 years of age, and health workers.

Exclusion criteria:

- Interventions that are not mobile or tablet-based, such as websites or social networking services (SNS).
- Interventions that involve telemedicine, telepsychiatry, and telehealth, such as emails, telephone, among others.
- Interventions that do not focus on psychosocial and behavioral outcomes.

Comparator(s)/control

The comparator will be participants who received standard care and did not receive any type of mHealth interventions.

Context

We will consider all health settings.

Main outcome(s)

Changes in psychosocial health (such as mitigation of depressive symptoms, anxiety symptoms or increase in life satisfaction, quality of life)

Changes in high-risk health behaviors (such as smoking and alcohol cessation, improvement in nutritional intake and physical exercise)

Measures of effect

Not applicable

Additional outcome(s)

Not applicable

Measures of effect

Not applicable

Data extraction (selection and coding)

Two review authors will be involved in the process of literature search, article screening, and data extraction. The databases will be independently searched using the aforementioned search strategy and identify the studies by title and abstract screening. The team will review the list of articles for eligibility. We will discuss disagreements on the eligibility of study until a consensus is reached. If required, we will consult our supervisor for the final decision.

The data to be extracted include:

title, citation (author, publication year, source), study location, objectives, study design, study setting, study population, sample size, types of mHealth interventions, comparison group, and reported outcomes

Risk of bias (quality) assessment

The quality of studies included in the research will be assessed using the risk of bias tools from the Cochrane Handbook. GRADE approach will be used to assess the certainty of the evidence of the studies. For qualitative studies, we will use the Critical Appraisal Skill Programme (CASP) tool.

Strategy for data synthesis

We will follow the PRISMA checklist for appropriate data synthesis. We will construct a PRISMA flowchart to show the search strategy results at each stage of review. We will conduct a descriptive analysis of individual studies according to the type of intervention, sample size, duration, outcome, quality, and risk of bias. We will analyze the effectiveness of the intervention, based on the nature of reported outcomes. If we find enough studies with quality data, we will conduct a meta-analysis to examine the effectiveness of mHealth interventions in psychosocial and behavior change among pregnant women, mothers, fathers, and health

workers.

Analysis of subgroups or subsets

None

Contact details for further information

Jennifer Lisa Sakamoto

jennylisa.sakamoto@gmail.com

Organisational affiliation of the review

Department of Community and Global Health, The University of Tokyo

<http://www.ich.m.u-tokyo.ac.jp/en/index.html>

Review team members and their organisational affiliations

Ms Jennifer Lisa Sakamoto. Department of Community and Global Health, Graduate School of Medicine, The University of Tokyo, Tokyo

Dr Rogie Royce Carandang. Department of Community and Global Health, Graduate School of Medicine, The University of Tokyo, Tokyo

Mr Madhu Kharel. Department of Community and Global Health, Graduate School of Medicine, The University of Tokyo, Tokyo

Dr Akira Shibamura. Department of Community and Global Health, Graduate School of Medicine, The University of Tokyo, Tokyo

Dr Ekaterina Yarotskaya. Head, Department of International Cooperation, Center for Obstetrics, Gynecology and Perinatology, Ministry of Healthcare, Moscow

Dr Milana Basargina. Head, Neonatal Department, National Medical Research Center for Children's Health, Ministry of Healthcare, Moscow

Professor Masamine Jimba. Department of Community and Global Health, Graduate School of Medicine, The University of Tokyo, Tokyo

Type and method of review

Meta-analysis, Systematic review

Anticipated or actual start date

01 June 2020

Anticipated completion date

30 December 2020

Funding sources/sponsors

Department of Community and Global Health, Graduate School of Medicine, The University of Tokyo, Japan

Conflicts of interest

Language

English

Country

Japan, Russian Federation

Stage of review

Review Ongoing

Subject index terms status

Subject indexing assigned by CRD

Subject index terms

MeSH headings have not been applied to this record

Date of registration in PROSPERO

05 July 2020

Date of first submission

28 May 2020

Stage of review at time of this submission

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

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

05 July 2020