

# A Delphi Study to Identify Research Priorities Regarding Physical Activity, Sedentary Behavior and Sleep in Pregnancy

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## For which topic were research priorities identified?

physical activity, sedentary behavior and sleep in pregnancy

## In which location was the research priority setting conducted?

North America - Canada; Australia - Australia; Europe - United Kingdom; Europe - Ireland

## Why was it conducted at all?

To date, it is unclear if research has overlooked, or perhaps not considered, specific aspects of prenatal physical activity that could help individuals overcome the physical and knowledge barriers that arise in pregnancy. It is therefore necessary to identify prenatal physical activity research needs among pregnant individuals and those involved in their care and management, to improve prenatal physical activity levels that could be of clinical significance for mum and baby. Despite emerging evidence with more than 25 studies reporting sedentary behaviors and maternal health outcomes, many of the studies are limited in their methodology by not conforming to gold-standard approaches of quantifying sedentary behavior. Therefore, direction is necessary as to what questions prospective rigorous methodologies should focus on to advance this field of literature. Despite the paucity of evidence regarding sedentary behavior and sleep during pregnancy, both modifiable lifestyle factors likely contribute to maternal and fetal health; however, more research is needed to confirm this. As this field of literature expands, it seems timely to identify research priorities so that prospective evidence is both participant lead and clinically relevant, to yield maternal and fetal health-related impacts.

## What was the objective?

to produce a list of the top 10 research priorities regarding physical activity, sedentary behavior, and sleep in pregnancy among pregnant/postpartum individuals, healthcare providers and exercise professionals to direct future research to inform practice, and potentially contribute to the development of lifestyle-related guidelines that encompass physical activity, sedentary behavior and sleep recommendations for pregnant individuals

## What was the outcome?

a ranking list of 50 research questions

## How long did the research prioritization take?

March 2021 - June 2021: Delphi round 1

## Which methods were used to identify research priorities?

Delphi

## How were the priorities for research identified exactly?

Step 1: Delphi round 1: survey was distributed asking pregnant/postpartum individuals to "list up to 10 questions that remain unanswered regarding exercise/physical activity, sedentary behavior and sleep during pregnancy respectively". The healthcare providers and exercise professionals were asked to "think about their clinical or professional practice and list up to 10 research questions that remain unanswered regarding exercise/physical activity, sedentary behavior and sleep respectively during pregnancy". The healthcare providers and exercise professionals were also asked if they discussed exercise/physical activity, sedentary behavior and sleep with pregnant individuals. 583 questions (240 on exercise/physical activity, 167 on sedentary behavior and 176 on sleep) were submitted by pregnant/postpartum individuals. 350 (197 on exercise/physical activity, 74 on sedentary behavior and 79 on sleep) questions were submitted by healthcare providers/exercise professionals. Step 2: data analysis: The submissions were content analyzed. Thematic labels were allocated and submissions were classified into topics. Step 3: Delphi round 2: A final list of 87 questions was presented. Participants were asked to indicate how important each of the questions were to them using a Likert scale ranging from 1 (not important) to 5 (very important).

## Which stakeholders took part?

Delphi round 1: 154 participants: 112 pregnant/postpartum individuals, 42 exercise professionals and healthcare providers. The healthcare providers/exercise professional group of participants comprised exercise physiologists/kinesiologists, physiotherapists/physical therapists (N=20), exercise practitioners (coach or fitness instructor) (N=10), medical practitioners (physician, registered nurse or midwife) (N=10), a dietician (N=1) and a radiographer (N=1). Delphi round 2: 89 participants: 67 pregnant/postpartum individuals, 22 exercise professionals and healthcare providers.

 **werestakeholdersrecruited?**

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The project team recruited pregnant/postpartum individuals, defined as individuals who were pregnant or had delivered in the past 12 months, and prenatal healthcare providers and qualified exercise professionals, which included obstetric healthcare providers and exercise professionals (midwives, practitioners, physiotherapists,