

## Doubts cast over accuracy of many popular fertility and pregnancy planning apps

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Many popular fertility and pregnancy planning apps may be inaccurate, suggest the results of a scoping review of the available evidence, published online in the journal *BMJ Sexual & Reproductive Health*.

Despite their growing popularity, there's little hard evidence to inform



the use of these apps in practice, coupled with minimal regulation, note the researchers. And many apps seem to have been developed without any fertility specialist input.

There has been a significant increase in the use of mobile health apps, including those that monitor monthly menstrual cycles and fertility. Period tracking apps were downloaded at least 200 million times in 2016 alone.

Concerns have been raised about the way in which these apps have been marketed to the public as well as the strength of the evidence for their effectiveness in helping <u>women</u> avoid an unintended pregnancy.

To try and gather more information about the use and development of fertility and pregnancy planning apps, the researchers carried out a scoping review of the available evidence by scanning research databases in May 2019.

A scoping review aims to provide an overview of the evidence, but unlike a <u>systematic review</u>, doesn't exclude research on the grounds of poor quality or potential bias because of the involvement of commercial interests, for example.

The researchers included 18 relevant studies, published between 2010 and 2019 from 13 countries in their review.

The data from these studies were then analysed according to three main themes: fertility and <u>reproductive health</u> tracking (6 studies); pregnancy planning (4); and pregnancy prevention (11).

The analysis revealed that women use fertility and health tracking apps for various different reasons, but that these reasons are subject to change over time.



Existing apps don't necessarily involve women in their design or development or take account of the way in which they are used in practice, note the researchers.

"This is especially important because the user is considered to be the single greatest 'risk factor' in the accuracy of apps, and this is particularly significant if women are seeking to prevent, or plan, a pregnancy," they write.

In terms of pregnancy planning, there is simply not enough published evidence to draw any firm conclusions, say the researchers, and what evidence there is, casts doubt on the predictive accuracy of these apps.

"The ability to accurately predict the fertile window is important, but the limited research that exists seems to indicate that many of the most popular apps are not accurate, even though they might contain information that supports pregnancy planning or are marketed specifically for this purpose," they write. "[This] could be very misleading for women and couples that are trying for a baby."

Several of the studies indicated that fertility apps can be successfully used as a means of contraception, but not all of them marketed for this purpose have been designed to include this feature, caution the researchers.

"...Women may be using a range of apps for <u>pregnancy</u> prevention that are not intended to be used in this way," so risking <u>unintended pregnancy</u>, they warn.

The researchers admit that only studies published in English were included in their review, while the differences in <u>study design</u> and methods, make it difficult to compare them.



But they add that there has been little discussion about how these apps should be regulated, and that only limited guidance is available.

"There is considerable scope for future research," which takes account of ethnic, cultural, geographic and age diversity, and which is free of commercial influence, they suggest.

And specialist input wouldn't go amiss either, they add. "The involvement of fertility specialists and other health professionals should also be an important aspect of future research and development in this field," they conclude.

Dr. Diana Mansour, Vice President, Clinical Quality, of the Faculty of Sexual and Reproductive Healthcare (FSRH) comments: "The analysis shows that women's motivations to use fertility apps are varied, may overlap and change with time. Therefore, it's understandable that during the COVID-19 pandemic, women may choose to turn to fertility apps as a logical solution for avoiding face-to-face consultations.

"However, we still don't know how well many of these apps work to prevent unplanned pregnancies. All require correct and consistent use with daily inputting of data. Fertility awareness apps have the potential to broaden contraception choice, but at present it's important to treat fertility apps for contraceptive purposes with caution."

She adds: "If women need to start contraception or get a repeat prescription during the COVID-19 pandemic, I advise them to call their GP or contraceptive clinic to discuss their need. Most GP practices will be able to issue an electronic prescription that women can collect in their nearby pharmacy; other services can supply/post their preferred method."

**More information:** Use of menstruation and fertility app trackers: a



scoping review of the evidence, *BMJ Sexual & Reproductive Health*, DOI: 10.1136/bmjsrh-2019-200488

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