Only 5% of fertility apps contain professional advice or cite science, finds new study

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Only 5% of accurate fertility apps contain professional advice or cite scientific literature and need "substantial improvement," finds a new study published in the peer-reviewed journal *Human Fertility*.

Reviewing 299 scientific studies of 73 different apps, experts also found that whilst 75% of fertility apps offered ovulation predictions these were only just over 20% accurate.

Additionally, the research shows most apps fail to provide any accurate information whatsoever and of those that did, only 55% contained fertility information.

Following the disappointing results, the research team from the Universities of Newcastle and Western Sydney, Australia call for a dramatic gear shift in future app development.

"Ultimately when apps are developed in conjunction with experts, and elements of behavior theory and digital learning are considered, then there is potential for substantial improvements in fertility knowledge to occur," says lead author Dr. Jessie Sutherland, from the University of Newcastle's School of Biomedical Sciences and Pharmacy.

"The need for integration and cohesion of reproductive health and fertility information is ever present.

"Future iterations of apps need factual information about factors influencing fertility with an accompanying evaluation. This would strengthen apps as tools for acquiring knowledge and measuring/recording reproductive health."

One of the main areas for fertility apps' potential improvement, the paper states, is to widen their scope of usability to "consider the diverse and changing needs of their users and cater for a wider variety of purposes including contraception, trying to conceive, measuring, and observing changes in response to medications or reproductive illnesses, etc, for a variety of people of different race, sexuality, and gender."

Dr. Sutherland adds: "We know that the information people seek regarding their reproductive health is life-stage dependant. If apps are to be used as decision making health informatics tools, then they must be able to accommodate for a variety of needs across many interrelated subjects.

"Apps should be able to cater for specific needs and goals or be clear about the intended audience.

"They have the ability to fulfill a range of reproductive health needs, but they currently do so with severe limitations when it comes to recording menstrual cycle variability and accurate fertility prediction."

As a review study, one of the key findings of the paper was an actual lack of research determining the effectiveness of an app's contents to translate to knowledge or behavior change in participants.

This might be, the authors state, another fault of the app makers failing to make openly reportable findings for interpretation within academic literature. "We found that although many apps claimed to be based on scientific research, the value and scope of this research was restricted."

"Overall," they add, "the depth of fertility information within apps does not seem to be adequately reported in peer-reviewed literature, which has consequences for the independent review and interpretation of content.

"Therefore, continued efforts towards rigorous reporting and accuracy will achieve large strides in public health promotion for fertility and reproductive health."

More information: Emmalee A. Ford et al. A scoping review of the information provided by fertility smartphone applications, *Human*

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