

Better studies needed on effectiveness of fertility awareness-based methods for contraception

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A new systematic review provides the most comprehensive assessment to date on the scientific evidence estimating the effectiveness of various fertility awareness-based methods (FABMs) for contraception.

"Effectiveness of Fertility Awareness–Based Methods for Pregnancy Prevention: A Systematic Review," led by UNC's Rachel Peragallo Urrutia, MD, was published in *Obstetrics and Gynecology*, also known as The Green Journal. The review shows that the current evidence base on effectiveness for each unique FABM is small and of low to moderate quality, leaving a critical gap in information for current and prospective users.

FABMs help users identify the span of days during each menstrual cycle when intercourse is most likely to result in pregnancy. Users track changes in one or more biomarkers (menstrual dates, basal body temperature, cervical mucus or position, and urinary hormone metabolites) to estimate the fertile window. Different types of FABMs focus on tracking different biomarkers. People who want to avoid pregnancy can avoid intercourse or use additional family planning methods, such as barrier methods, during their fertile window.

The investigators gathered all peer-reviewed studies published in English, French, Spanish, or German which followed women over time to assess how well a given FABM worked to prevent unintended pregnancy. They identified all available studies on 14 different FABMs and rigorously evaluated the quality of each study based on a 13-point list of criteria. Based on that list, each study was rated high, moderate or low quality. Estimates from high-quality studies would be considered the most valid. Of the 53 studies identified, the investigators ranked 0 as high quality, 21 as moderate quality, and 32 as low quality.

"Many women think they are using an effective FABM to avoid pregnancy, when in fact the method they are using has not undergone robust effectiveness testing," said Urrutia, an obstetrician-gynecologist and assistant professor at the UNC School of Medicine. "For example, there has been a recent rise in popularity of Internet applications or other devices that promote themselves as an effective FABM, yet only a few

of them have actually undergone standard effectiveness testing, as clarified in our review."

People choosing a method of pregnancy prevention need robust evidence on two types of effectiveness—typical use and perfect use. Typical use effectiveness reflects how well a method can work for an average couple who may not always use it correctly or consistently. Perfect use effectiveness reflects how well a method can work when used exactly as specified at all times.

Moderate quality studies estimating typical use effectiveness were identified for 12 out of the 14 different FABMs. Those studies suggested that if 100 women started using the method for one year, between 10 and 33 unintended pregnancies—depending on which FABM was used—would likely occur. These estimates are within a similar range as some barrier methods. The Sensiplan and Marquette Monitor methods may be the most effective with 1.8-6.8 unintended pregnancies per 100 new users in the first year of use. But, all of these estimates were based on a small number of moderate quality studies in specific populations, meaning that additional data are needed to understand if these estimates apply to more diverse populations.

Only seven of the 14 different FABMs had moderate quality studies correctly estimating perfect use effectiveness. Perfect use estimates for most FABMs ranged between 1 and 5 pregnancies per 100 users in one year, except Persona, which had a perfect use estimate of 12 pregnancies per 100 users in one year. The lowest perfect use unintended [pregnancy](#) rates were observed for users of Sensiplan or Marquette Monitor, with estimates suggesting one or fewer unintended pregnancies during the first year of use. Thus, most FABMs have perfect use estimates similar to those of male and female condoms. Some FABMs may be more effective, but confirmatory data in diverse populations are needed.

"Our [systematic review](#) is a major step towards assessing the extent and quality of existing studies on the effectiveness of fertility awareness-based methods," said Urrutia. "We hope it helps people better understand their options, in order to support them in choosing the method that best fits their preferences and lives."

More information: Rachel Peragallo Urrutia et al. Effectiveness of Fertility Awareness–Based Methods for Pregnancy Prevention, *Obstetrics & Gynecology* (2018). [DOI: 10.1097/AOG.0000000000002784](https://doi.org/10.1097/AOG.0000000000002784)

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