

FertiMeter: A Free of Cost Screening Tool of Polycystic Ovarian Syndrome

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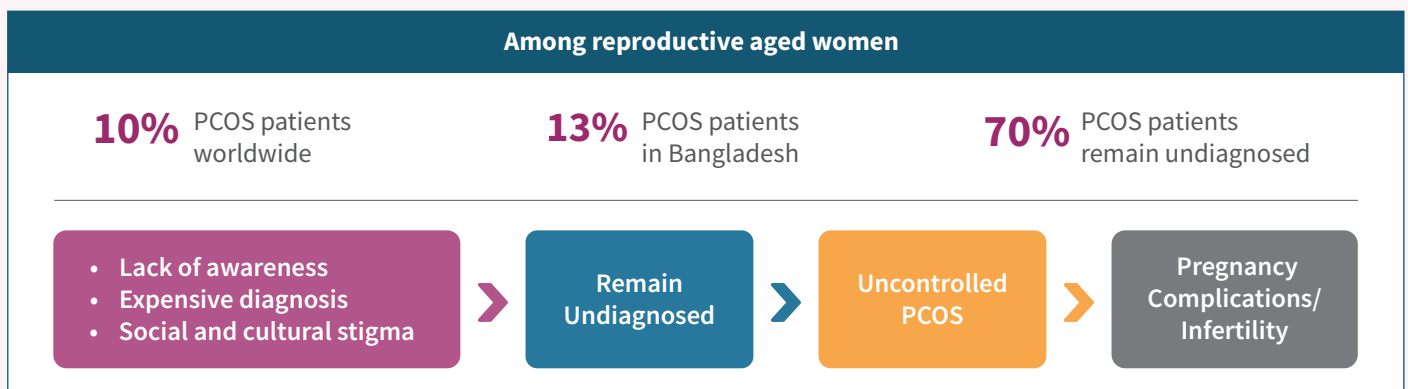
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Background

Polycystic ovary syndrome (PCOS) is a common endocrine disorder affecting around 10% of women worldwide [1] and almost 13% of women in Bangladesh [2]. This condition can lead to various adverse pregnancy

outcomes, including infertility. Early detection of PCOS can help women manage their symptoms and reduce the risk of complications. However, due to the lack of awareness, limited access to specialised medical care,

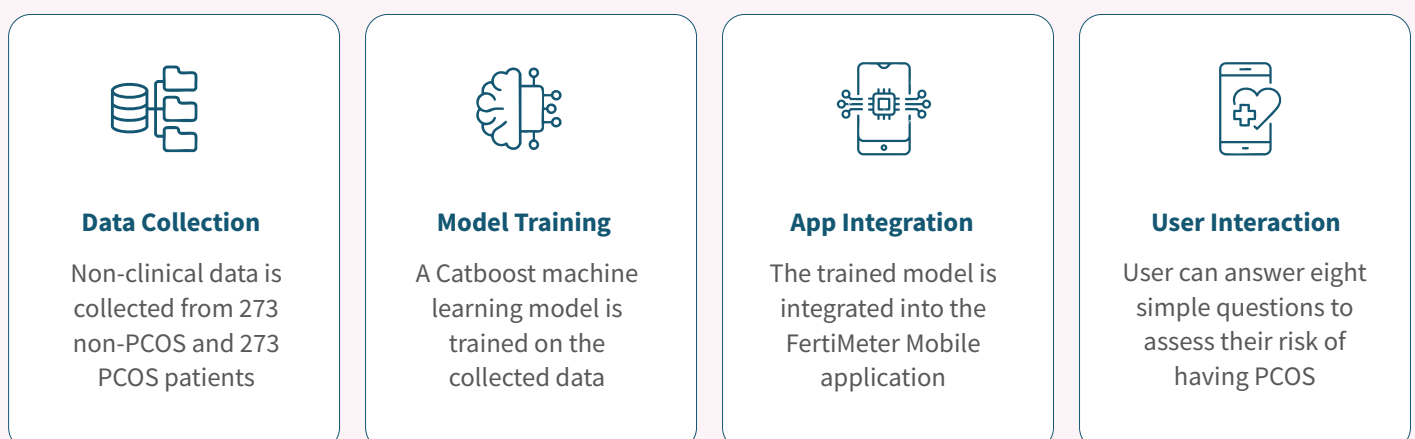
the expensive diagnosis process, and social and cultural stigma around 70% women remain undiagnosed and suffer from its effects [3].



Study Objective

Develop a mobile application that uses a machine learning model to help women assess their risk of having PCOS at an early stage.

Methods



Study Findings

The final predictive model identified eight key non-clinical features as the most influential in predicting PCOS

risk: menstrual regularity, hair growth on the chin or jawline, family history of PCOS, duration of trying to

conceive, unexplained weight gain, mood swing frequency, difficulty sleeping, and body shape.

8 Features to Predict PCOS using FertiMeter Mobile Application

Using these simple questions, the screening model gives the correct risk indication in about 86 out of every 100 cases and is able to correctly identify around 95 out of every 100 women who actually have PCOS, making it a reliable tool for early screening.

Menstrual regularity

Duration of trying to conceive

Unexplained weight gain

Family history of PCOS

Hair growth on the chin or jawline

Mood swing frequency, difficulty sleeping, and body shape

Potential Impact

4.6 Million

undiagnosed PCOS patients in Bangladesh can benefit from using FertiMeter

BDT 23,000 Million

can be saved if each early PCOS diagnosis saves an average of BDT 5,000 in treatment



References

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