

# Real-World Evidence on Awareness, Adoption, and Perceived Utility of Period Tracking Applications for Menstrual Health among University Students

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## INTRODUCTION

Period Tracking Applications (PTAs) are becoming recognized as helpful digital health tools for women. They enable women to monitor their menstrual cycles, symptoms, and reproductive health. For university students, who often deal with academic stress and irregular schedules, these apps offer a simple way to track their periods, receive reminders, and spot irregularities that might otherwise go unnoticed. Notifications about missed or delayed cycles can prompt timely medical visits and screening for issues like Polycystic Ovary Syndrome (PCOS), which helps with early detection. Understanding how university students view and use PTAs is important for improving menstrual health education and shaping app development.

## OBJECTIVE

- To assess awareness, usage patterns, frequency of adoption, and satisfaction with period tracking applications among female university students.
- To identify key barriers and facilitators influencing PTA utilization, with particular emphasis on privacy concerns and usability issues.
- To explore perceptions of PTAs as tools for menstrual health monitoring and early identification of irregularities suggestive of PCOS, including their potential role in supporting early health-seeking behavior.

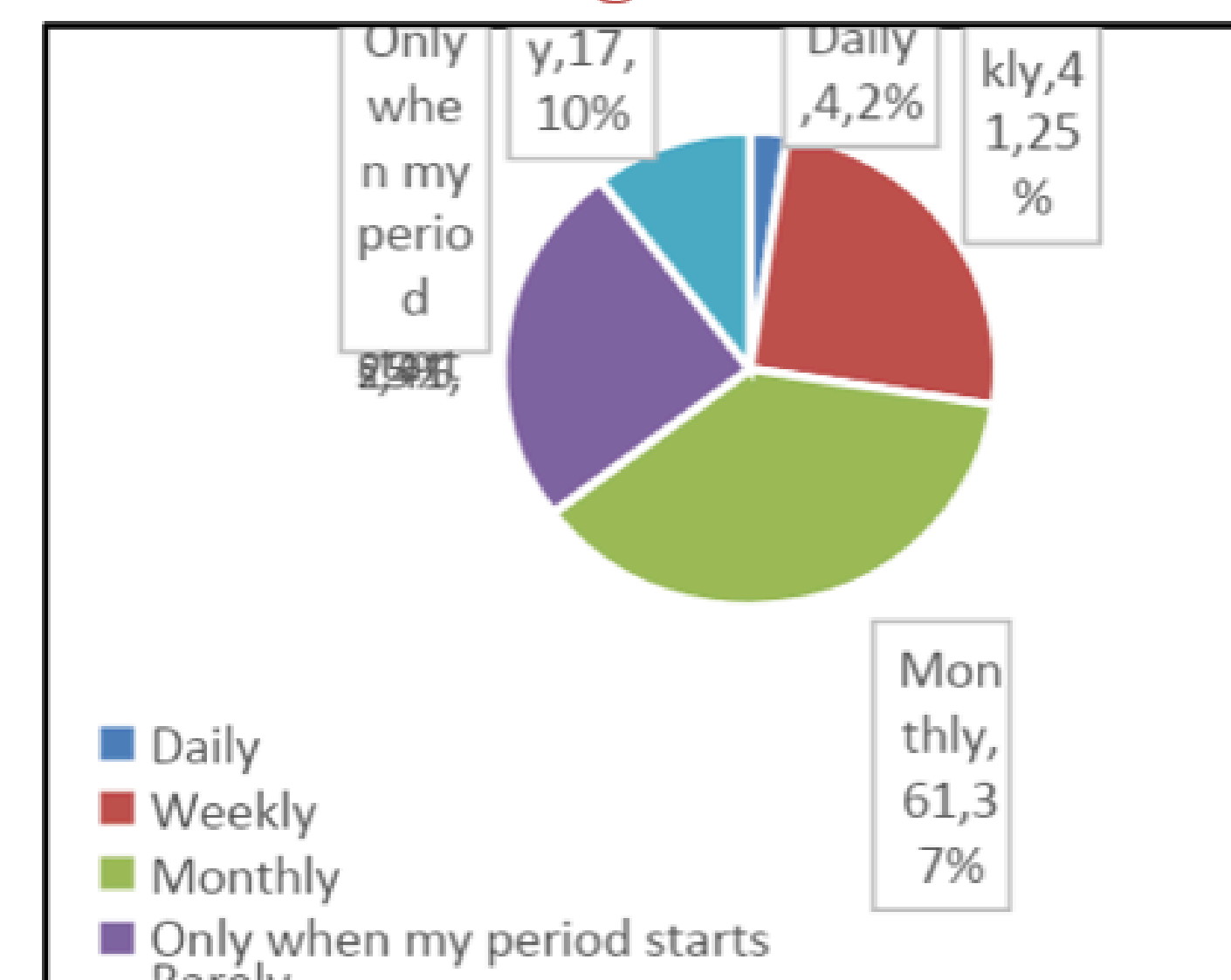
## METHODOLOGY

- A cross-sectional survey was conducted among female university students aged 18–30 years.
- A structured questionnaire assessed awareness, usage patterns, perceived benefits, satisfaction, and barriers to PTA use.
- Descriptive statistical analysis was performed on responses from **473 participants**.

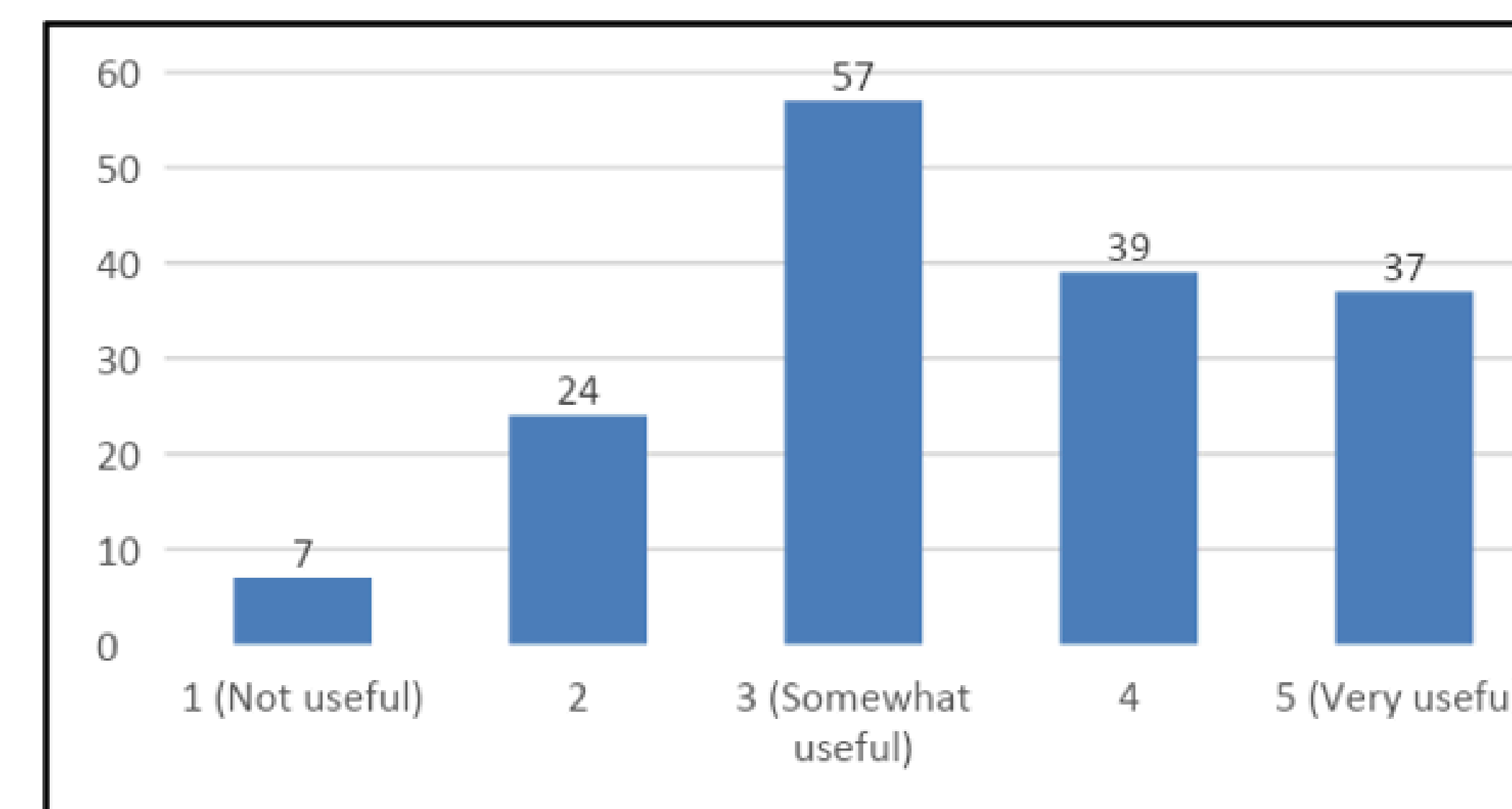
## RESULT

A total of 473 students participated in the study, with a mean age of 20.7 ± 1.7 years. Overall awareness of PTAs was 67%. Awareness varied across academic courses: Moderate awareness was reported among non-health disciplines, MBA students reported 67.7% (21/31), BCA 66.7% (46/69), BSc 66.3% (53/80), Engineering 54.7% (58/106). Higher awareness was observed among pharmacy-related courses, particularly Pharm D 79.6% (43/54), B Pharmacy 75.4% (52/69), D Pharmacy 73.2% (30/41), and M Pharmacy 63.6% (14/22). Despite widespread awareness, adoption remained modest (34.7%). Non-use was primarily due to lack of awareness (33%), privacy concerns (20.4%), and perceived lack of utility (16.8%). Encouragingly, 71.2% of non-users expressed interest in learning more. Among users, 73.8% reported identifying menstrual irregularities, and 57.3% believed PTAs could aid in PCOS detection. Privacy was rated "very important" by 51.2%, with only 43% willing to share data with healthcare providers. The need for improved symptom tracking, more robust privacy controls, user-friendly design, and instructional content was highlighted by the students.

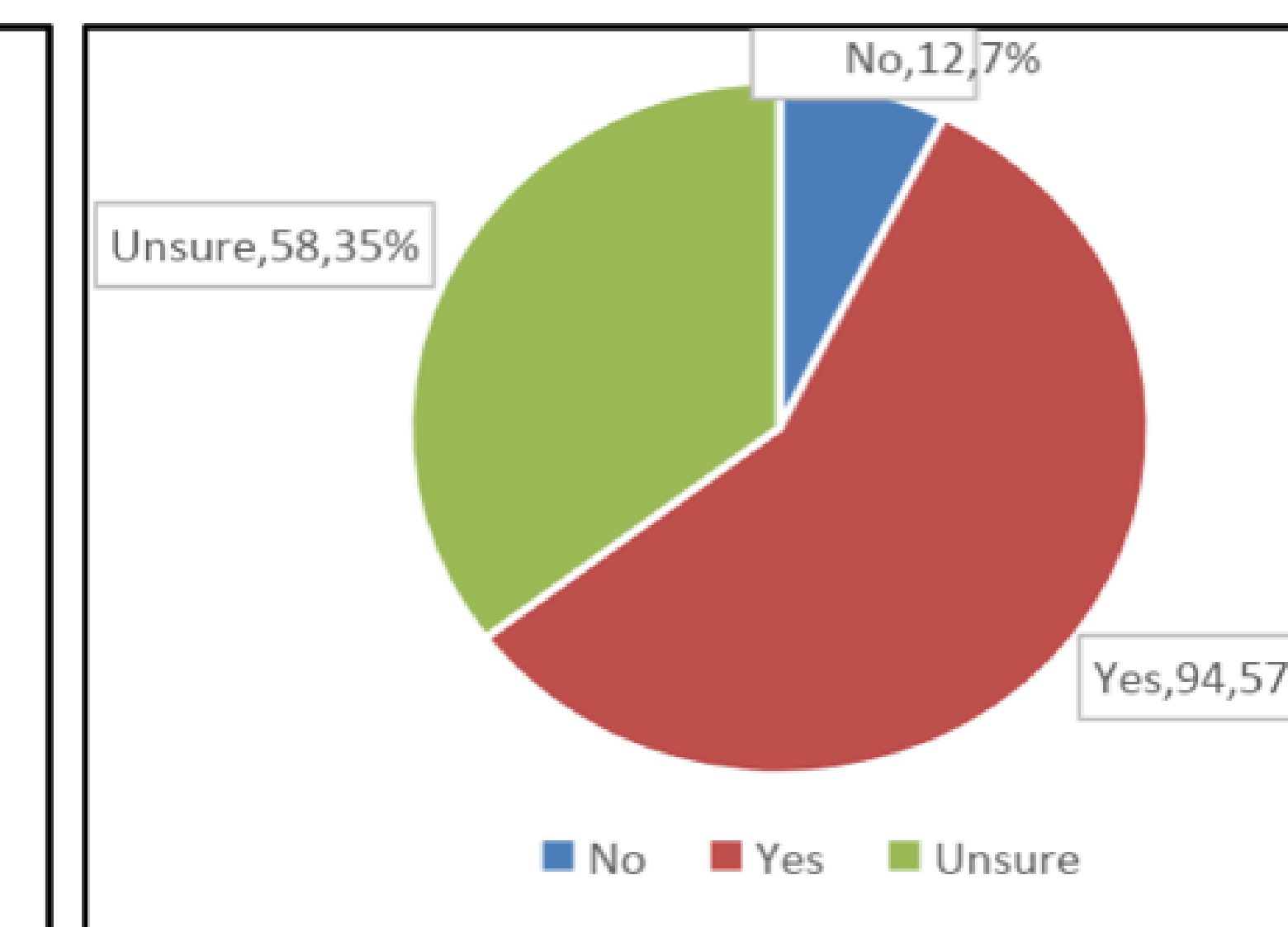
Students using PTA



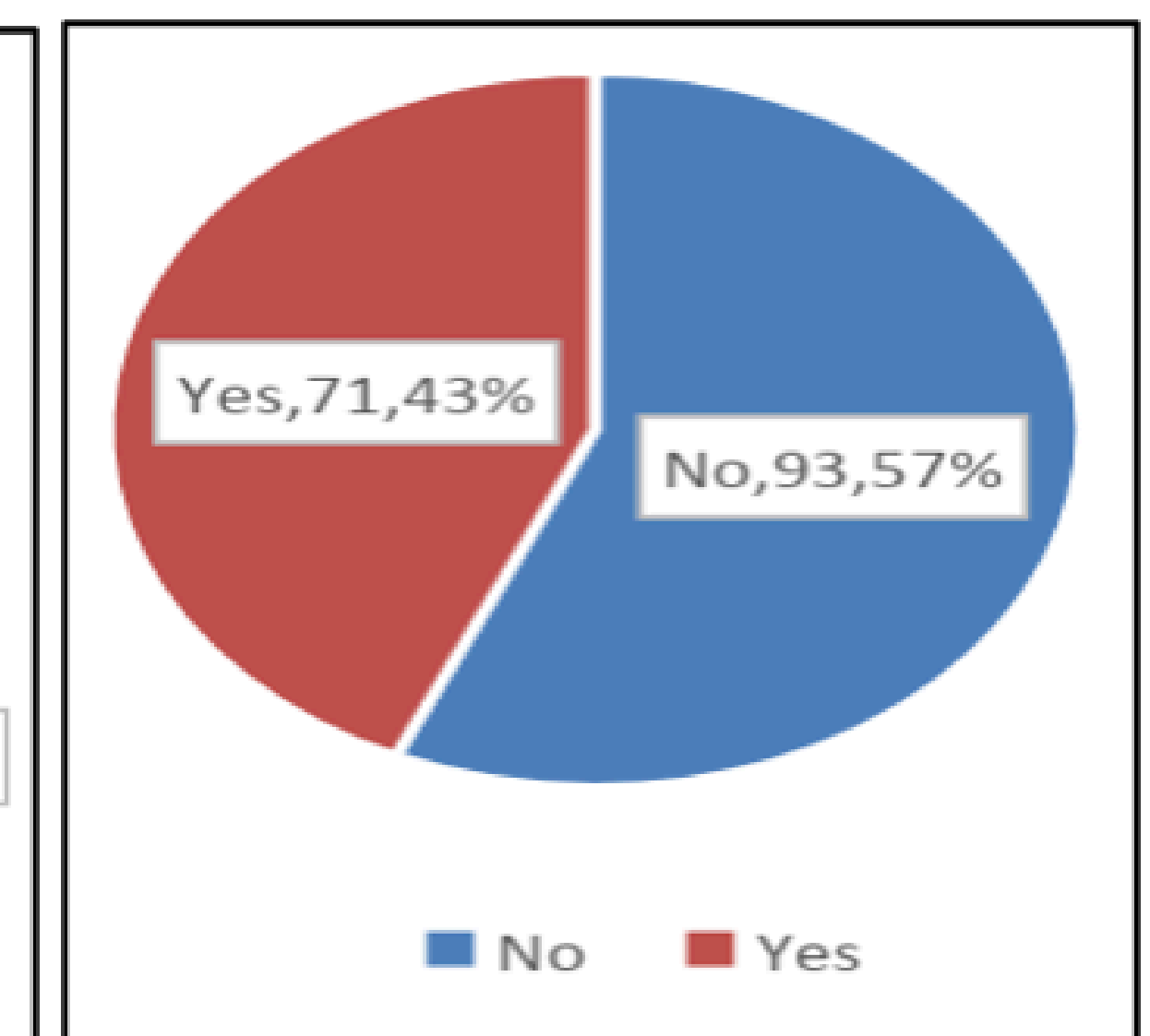
Frequency of using PTA



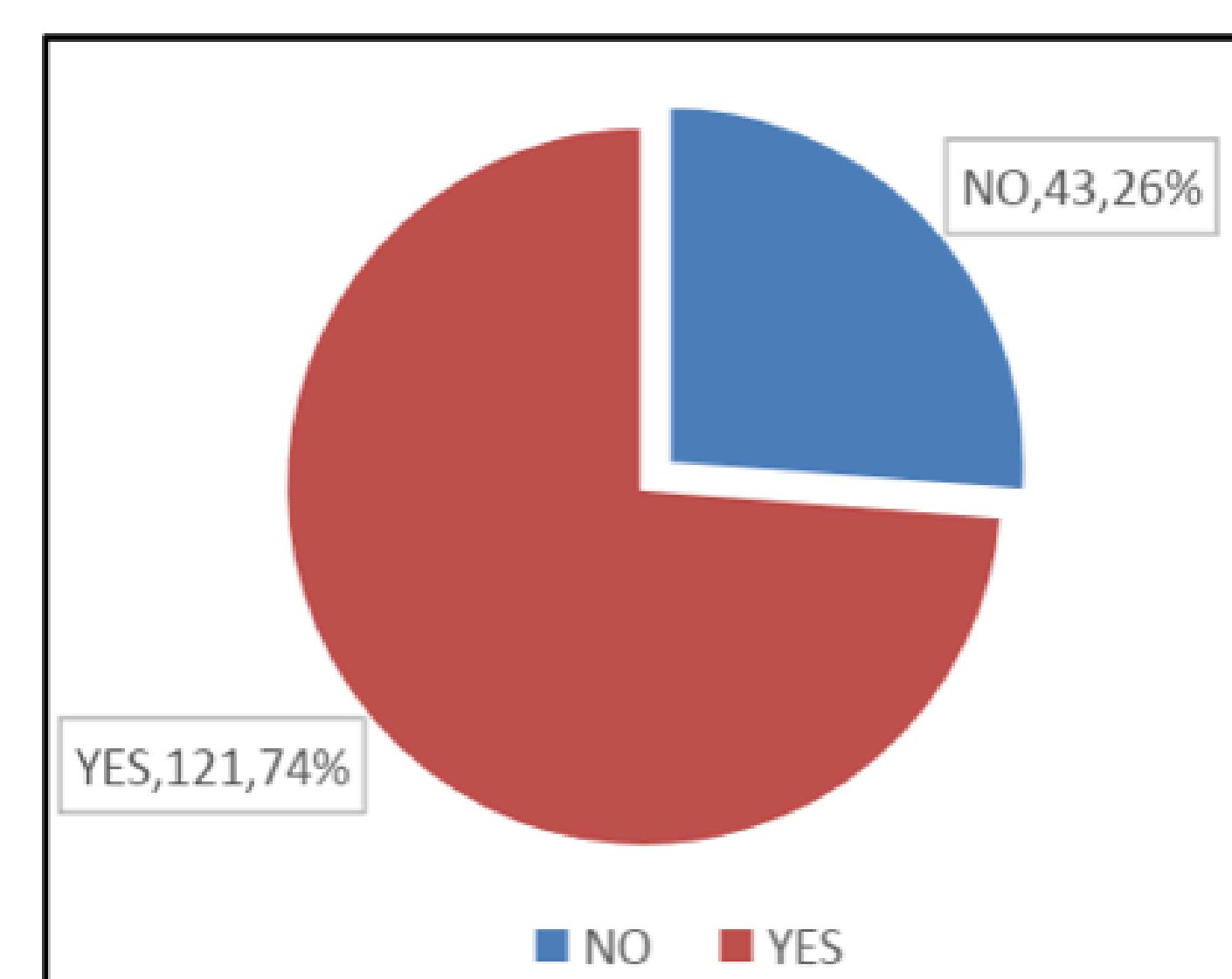
User rated effectiveness enhancing menstrual health knowledge.



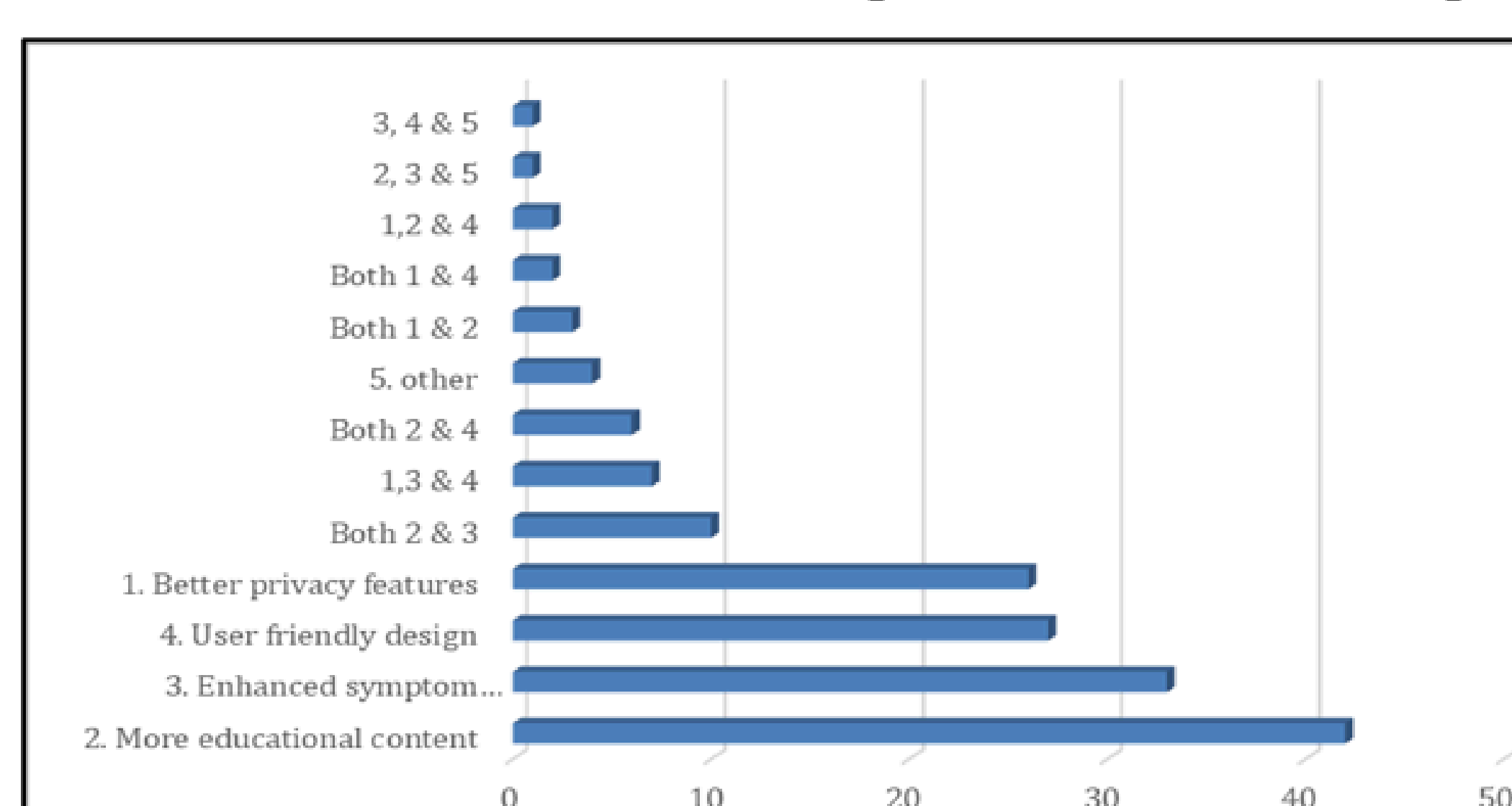
Role of PTA in Detecting PCOS



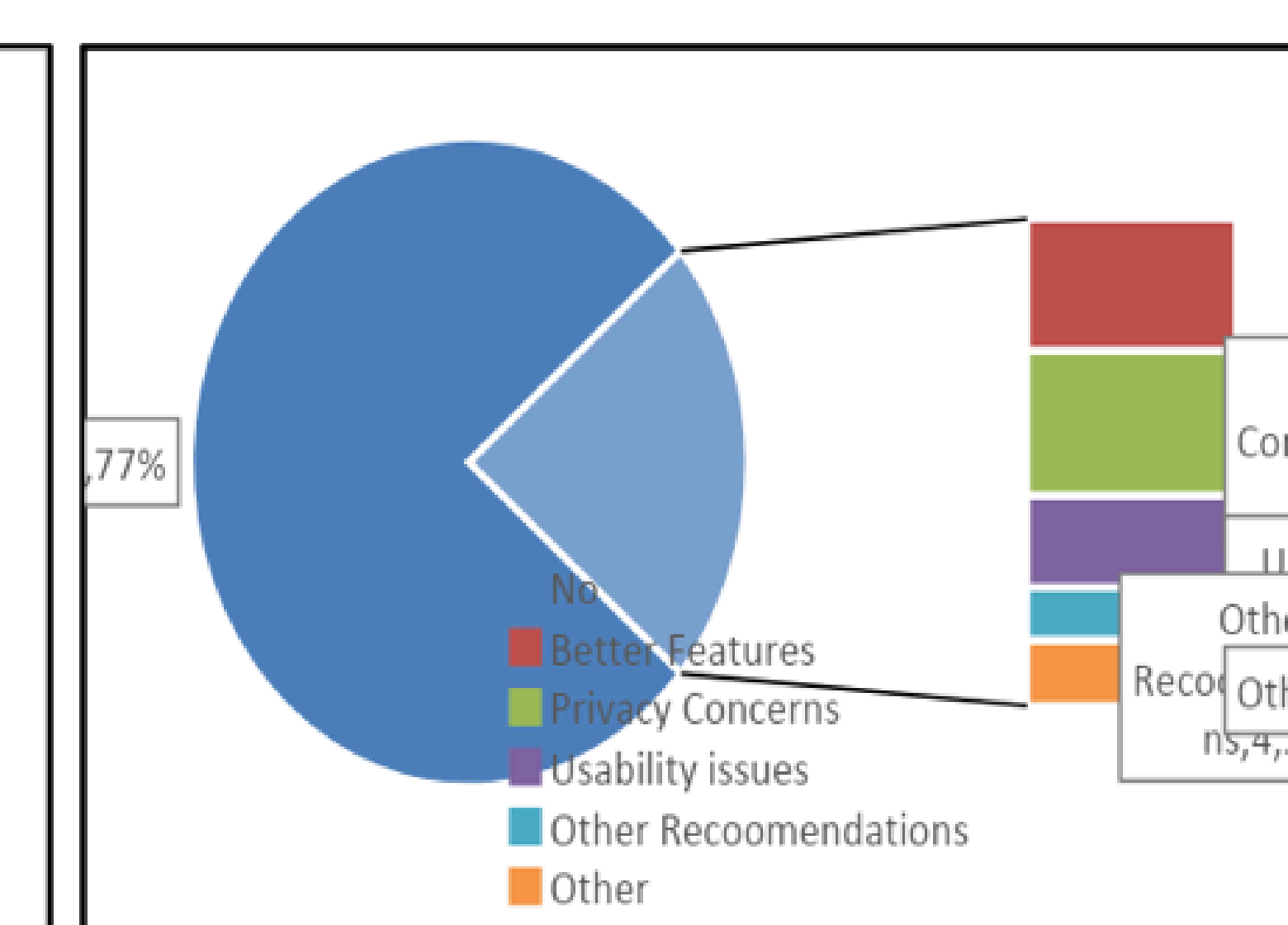
Communicating Data with Healthcare



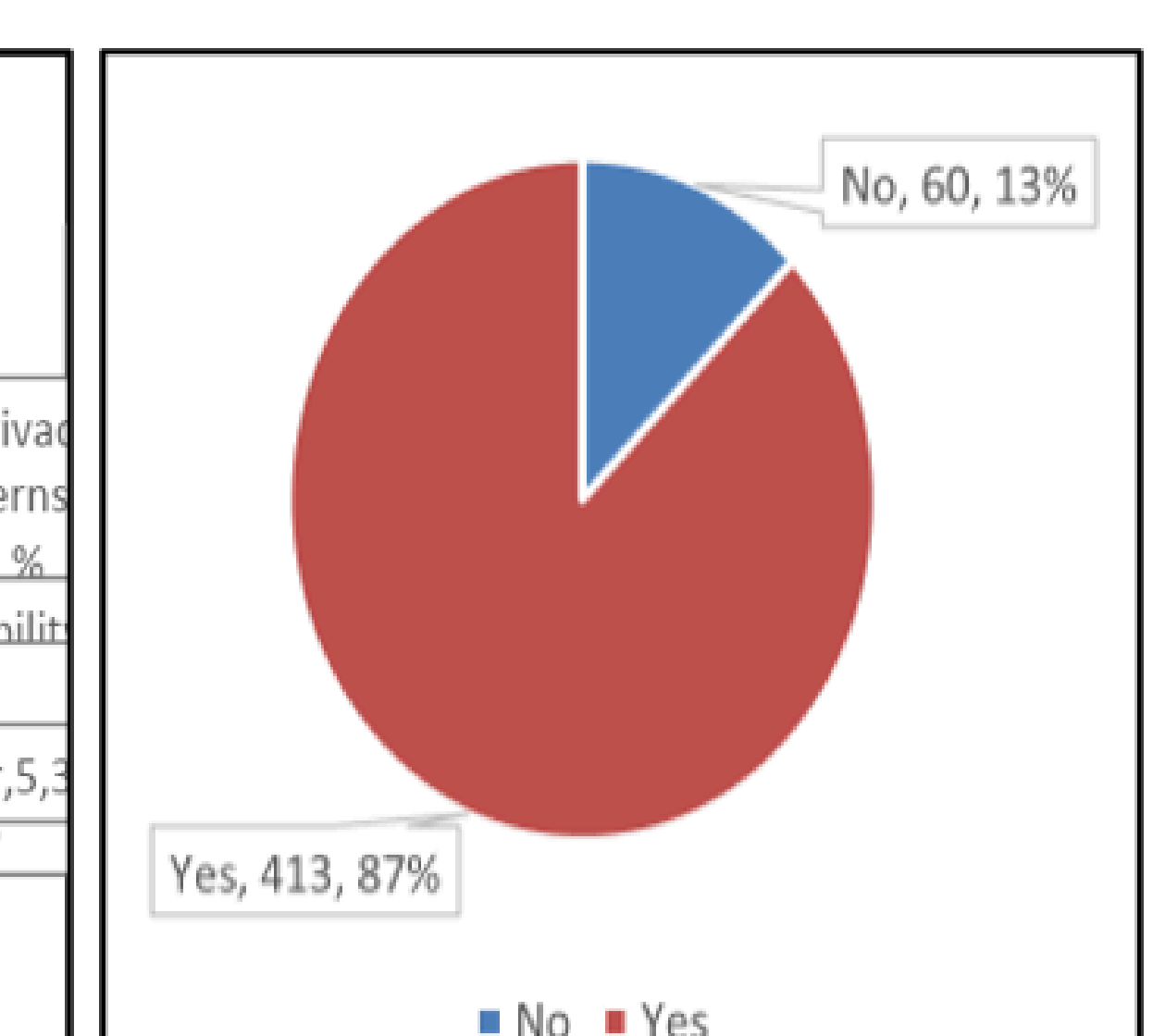
Awareness



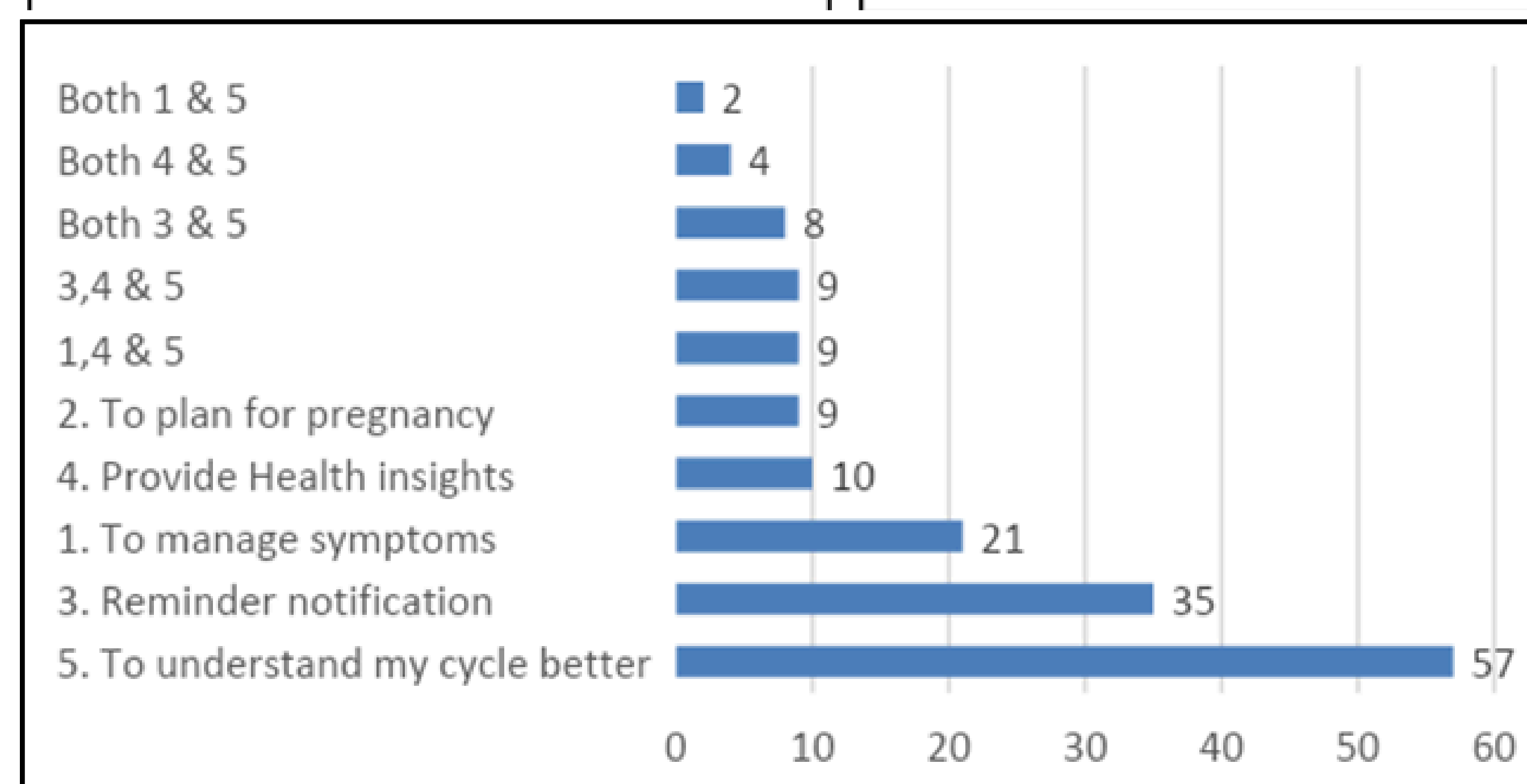
Reasons for not using PTA



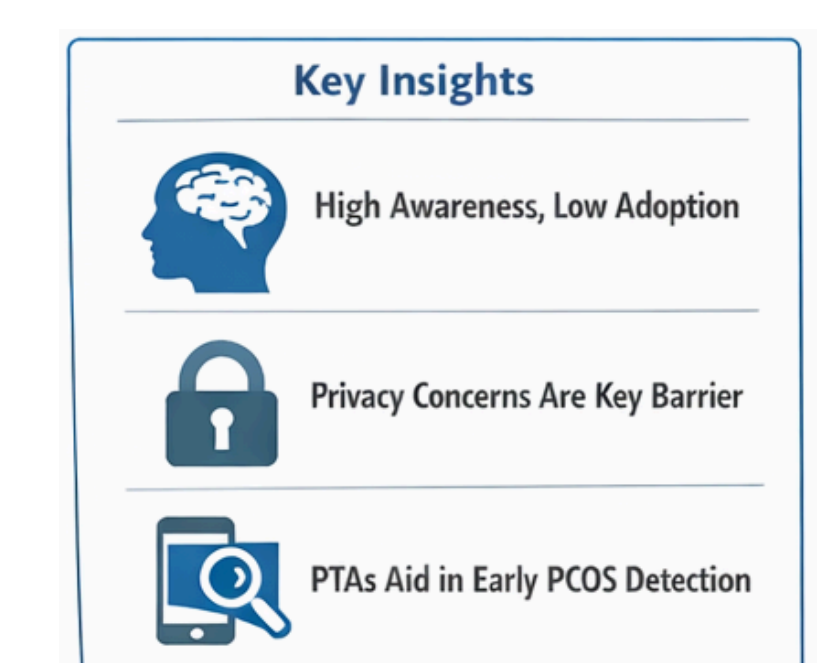
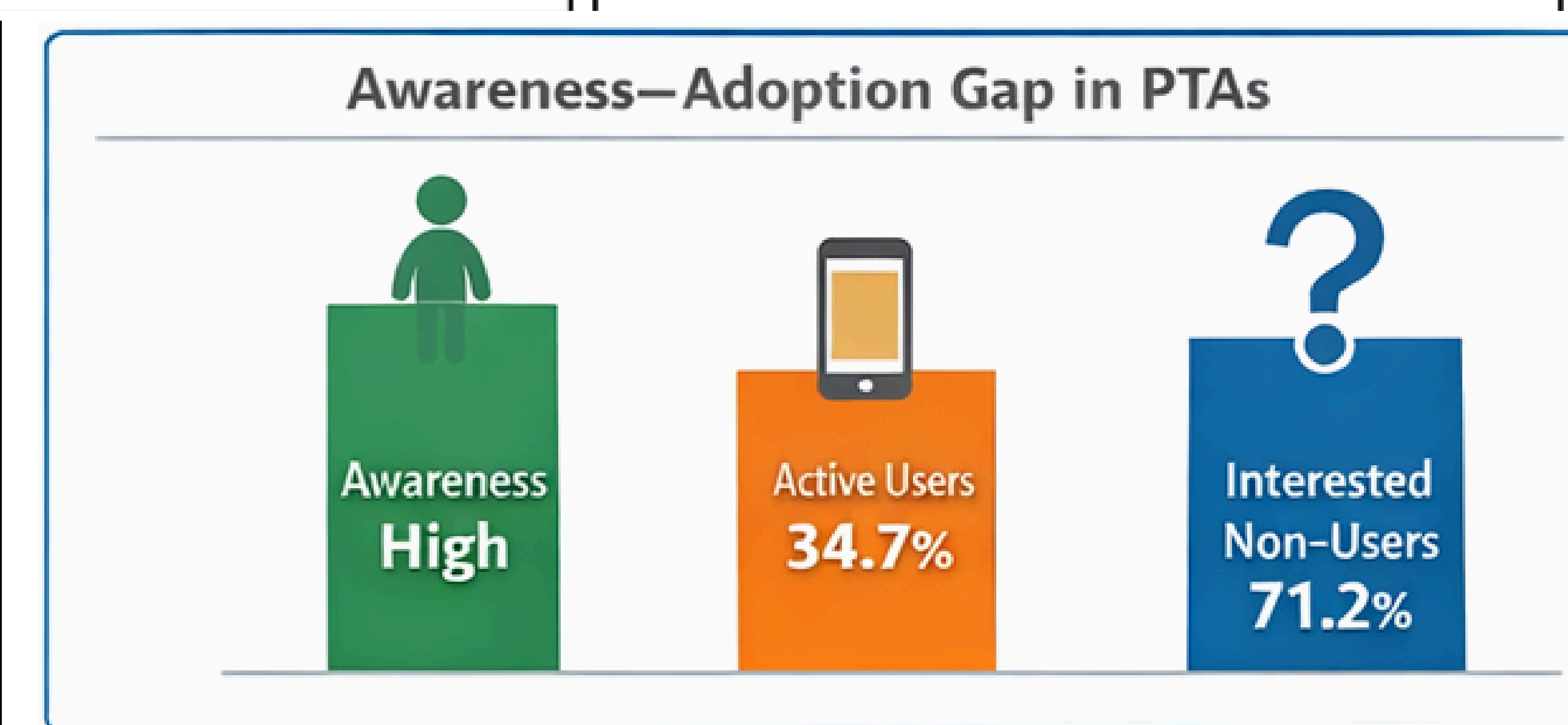
Reasons for not using PTA



Interested Non-Users



Reasons for not using PTA



## CONCLUSION

PTAs demonstrate strong potential as adjunct tools for monitoring menstrual health and detecting irregularities suggestive of PCOS among university students. PTAs can encourage timely medical evaluation and reduce underdiagnosis. To maximize adoption and impact, targeted efforts are needed to raise awareness in technical and non-health courses, with educational campaigns, improved app design, stronger privacy protections, and integration with healthcare support systems.