# ATTITUDE OF YOUNG WOMEN AGED 18-30 TO MENSTRUAL TRACKING APPS

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### ABSTRACT

**Aim.** The aim of this article is to explore the attitudes of young women towards menstrual cycle tracking applications.

**Methods.** The study involved 85 women aged 18 to 30 years to investigate their experiences and opinions regarding the use of menstrual tracking apps. In this work, the method of diagnostic survey was used.

**Results and conclusion.** The vast majority of respondents use apps to track their menstrual cycle. The most frequently mentioned applications are: Flo and Clue. Respondents who do not use these applications cite as the main reason that they did not know about the existence of such applications or do not like the format. The study shows that most respondents learn about these types of applications from the Internet. The vast majority of surveyed women report that the application correctly monitors the menstrual cycle and use it mainly for this purpose.

**Cognitive value.** The cognitive value of this article is that women aged 18-30 often use menstrual cycle tracking apps and find them useful but also most of the respondents confirm the credibility of the application in monitoring the menstrual cycle.

Keywords: menstrual cycle, tracking apps, family planning, Internet, Flo, Clue

#### Introduction

A normal cycle should last from 21-35 days. It begins on the first day of bleeding, while it ends just before the next period. Small delays in the appearance of menstruation are normal, not every cycle has to be the same. Differences between 1-4 days are within normal limits.

Over the years, menstrual cycle monitoring apps have been developed and have become a staple in young women's menstrual cycle control, these apps primarily help in proper monitoring of ovulation or pregnancy planning. The apps are also great reminders for people who can't remember the date of their last period, which is crucial for calculating fertile days or is a basic question asked during a follow-up visit to the gynecologist. The fertile phase lasts from 6-9 days, during which time a woman can become pregnant. Ovulation, on the other hand, lasts only one day, which is why it is so important to take into account many variables, such as the disruption of the menstrual cycle under the influence of various external factors or the survival time of semen in the woman's reproductive tract.

Monitoring the course of the menstrual cycle is important in that you can easily observe disturbing symptoms, such as an interval between periods that is too long or too short. Nowadays, there are many different apps available for monitoring the menstrual cycle. Some apps also have functions such as: observation of symptoms accompanying menstruation, such as headaches, nausea, vomiting, abdominal pain. In these applications you can even record how many days your period lasts and also how heavy it is. A very important problem is also PMS- premenstrual syndrome, which is very easy to diagnose thanks to the recorded symptoms. The characteristic symptoms of this condition are worsening mood and mood before menstruation, while these symptoms disappear immediately after the onset of bleeding. (Fowler, Gillard, & Morian, 2020)

#### MATERIAL AND METHODS

This work used the diagnostic survey method. The study involved 85 women aged 18-30 who voluntarily completed a proprietary electronic self-authored questionnaire examining the attitude of young women to using menstrual tracking apps. In order to collect the data, the google survey programme was used.

The survey inclueded questions on the following topics: attitudes towards cycle monitoring apps, pros and cons of such apps, reasons why the respondent does or does not use the app, the brand of the app used by the woman, how she learned of the existence of this type of app and the reliability of the information presented by the app. The study was conducted using the qualitative method.

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Table 1 *Education of the respondents* 

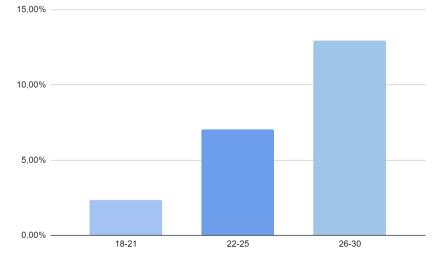
Age of the study group	Education								
	Vocational		Secondary		Higher				
	n	%	n	%	n	%			
18-21 years	0	0,00%	46	54,12%	0	0,00%			
22-25 years	6	7,06%	4	4,71%	14	16,47%			
26-30 years	2	2,35%	1	1,18%	12	14,12%			
Overall	8	9,41%	51	60,00%	26	30,59%			
n- number of people									

Source: own research.

Table 2 *Place of residence of the respondents* 

Age of the study group	Place of residence							
		Village			City			
	n		%	n		%		
18-21 years	34		40,00%	12		14,12%		
22-25 years	13		15,29%	10		11,76%		
26-30 years	9		10,59%	7		8,24%		
Overall	56		65,88%	29		34,12%		
n- number of people								

Source: own research.



*Fig. 1.* Surveyed women who do not use the application. *Source:* own research.

The most popular app among young women is Flo, which 68.2% (n=45) of respondents confirm using. A one of the often chosen app is Clue, which is used by 21.2% of respondents (n=14). Other apps mentioned by survey respondents are: Monthly Calendar 6.1%, (n=4), BELLA (4.5%, n=3), My Calendar 3%, (n=3) and OvuFriend (1.5%, n=1).

# RESULTS AND DISCUSSION

A significant proportion of women surveyed (77%, n=66) report using cycle monitoring apps. Similar to the work of Daniel A. Epstain (2017) and co-authors, where app use was confessed by 47% of respondents and another 12% prefer to use digital calendars on their phones or computers. That shows that nowadays young people are more likely to use mobile devices than standard methods such as paper. In Epstain's study, respondents stressed that nowadays we have apps for everything, so for tracking the menstrual cycle there should be one too. Some felt that using an app was convenient due to the fact that the app calculates the phases of the cycle itself and they don't have to remember anything.

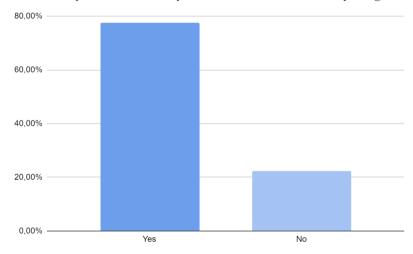


Fig 2. Do you use an app to monitor your menstrual cycle. Source: own research.

85 women participated in the study. The largest age group was women aged 18-21, accounting for more than 54% (n= 46) of the women surveyed. Women aged 22-25 accounted for 27% (n=23). The smallest group is women aged 25-30, and they accounted for only 19% (n=16).

In a study conducted by K. Gambier-Ross, D. McLernon and H. Morgan (2018) who surveyed 241 women aged 17-61 years, the largest group was women aged 17-24 (47%, n=115), followed by women aged 25-36 (36.7%, n=88). The other age groups noted a significant lack of interest in such a method.

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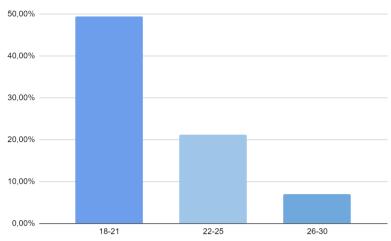
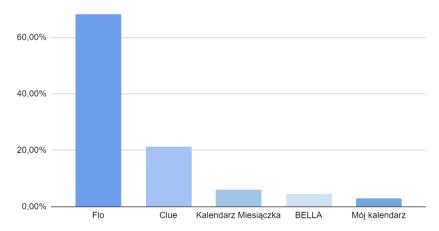


Fig. 3. Surveyed women who use the application. Source: own research.



*Fig. 4.* What cycle monitoring apps do you use? *Source*: own research.

Women who do not use the app accounted for 22.4% of all respondents (n=19). Among the reasons they do not use this method, the most frequently cited were the fact that they are not convinced by such a format (42,1%, n=8) and the fact that they did not know of the existence of such apps (42,1%, n=8). 15.7% (=n=3) of respondents confessed to using other methods.

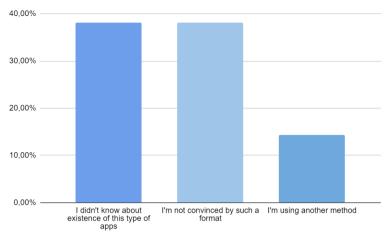
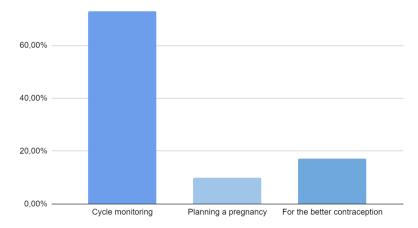


Fig. 5. Why do you not use a cycle monitoring app? *Source*: own research.

According to research by Shipp L. & co. (2020) the menstrual app can be used not only to monitor your cycle, but it can also be helpful for planning pregnancy or better contraception.

Among the women surveyed, a larger proportion (52,9%, n=51) reported that they use the app only for cycle tracking. The second popular answer was to monitor fertile days to better protect during sexual intercourse (17,1%, n=12). 10% (n=7) of the women surveyed said they were trying to get pregnant.

In their research, Ford A. & co. (2021) point out that women's apps have a number of features that positively improve self-awareness. This is a key element in improving perceptions of femininity. It is extremely important for women to understand their bodies and be able to correctly understand the signals it sends them.



*Fig. 5.* For what purpose do you use a menstrual cycle monitoring app? *Source:* own research.

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Research by Stępkowska & Przygodzka (2020) shows that the observation of fertility indicators, such as those found in applications, are very helpful in monitoring women's health. Unfortunately, most women, despite the knowledge available on the Internet, in the applications that help monitor the menstrual cycle, do not have knowledge about observing the menstrual cycle. This is in line with the above research, because as many as 72.9% of women use the application to monitor the cycle, while as many as 83.3% of women believe that these applications monitor the menstrual cycle well.

According to Pichon A & co. (2022), these applications include functions that enable learning about the body and its functions, which is confirmed by the research conducted above, because according to them, as many as 94.4% of the surveyed women find these applications very helpful. The most frequently used application is Flo, the Flo application is used by 68.2% of respondents. The vast majority of respondents learned about applications from the Internet (52.8%).

According to Moglia & co. (2016) report that not all free menstrual cycle apps are supported, while according to survey results, 83.3% of people believe that these apps are supported.

There are studies according to Lupton D. & co. (2016) that menstrual apps are used to monitor pregnancy as well the beginning of parenthood, which is consistent with the research results in the study, as 10% of respondents use the application to try to get pregnant.

The women surveyed believe that to make the apps better, features could be added such as: a reminder to take hormonal contraception, information on check-ups, recommended tests, refundable tests for a specific age group, and specific information on ways to affect fertility and help the process of getting pregnant.

#### Conclusions

This study shows that nowadays young people are more and more willing to choose mobile applications. In 2020, menstrual cycle monitoring apps will be used by more than 100 million women. Answers about using the application vary depending on the user of the application and their needs. Young women are very keen on using these types of apps, so this number continues to grow. This is due to the fact that most aspects of life are now being transferred to smartphones. So it's no surprise that young women are eagerly turning to apps to help them track their menstrual cycle. According to the study, the vast majority, as much as 77.6% of young women, use the cycle tracking application.

The applications support the tracking of the menstrual cycle, resulting in increased body awareness among people using such applications. So applications in these digitized times are a basic aid for monitoring the menstrual cycle and the vast majority of women surveyed find them useful.

#### REFERENCES

- Epstein, D. A., Lee N. B., Kang, J. H., Agapie, E., Schroeder, J., Pina, R. L., Fogarty, J. A., Kientz, J. A., & Munson, S. A. (2017). Examining Menstrual Tracking to Inform the Design of Personal Informatics Tools. CHI'17, 6876-6888.
- Ford, A., & De Togni, G. (2021). Hormonal Health: Period Tracking Apps, Wellness, and Self-Management in the Era of Surveillance Capitalism. *Engaging Science, Technology, and Society*, 7(1), 48-66. doi: 10.17351/ests2021.655.
- Fowler, L. R., Gillard, Ch., & Morian S. R. (2020). Readability and Accessibility of Terms Of Service and Privacy Policies for Menstruation-Tracking Smartphone Applications. *Health Promotion Practice*, 21(5), 679-683.
- Gambier-Ross, K., McLernon, D., & Morgan, H. M. (2018). A mixed methods exploratory study of women's relationships with and uses of fraternity tracking apps. *Digital Health*, 4, 1-15. doi: 10.1177/2055207618785077.
- Lupton, D., & Pedersen, S. (2016). An Australian survey of women's use of pregnancy and parenting apps. *Women and Birth*, 29, 368-375.
- Moglia, M. L., Nguyen, H. V., Chyjek, K., Chen, K. T., & Castaño, P. M. (2016). Evaluation of Smartphone Menstrual Cycle Tracking Applications Using an Adapted Applications Scoring System. *Obstetrics & Gynecology*, 127(6), 1153-1160. doi: 10.1097/AOG.000000000001444.
- Pichon, A., Jackman, K. B., Winkler, I. T., Bobel, Ch., & Elhadad, N. (2022). The messiness of the menstruator: assessing personas and functionalities of menstrual tracking apps. *Journal of the American Medical Informatics Association*, 29(2), 385-399.
- Shipp, L., & Blasco, J. (2020). How private is your period?: A systematic analysis of menstrual app privacy policies. *Proceedings on Privacy Enhancing Technologies*, 4. 491-510.
- Stepkowska, J., & Przygodzka, J. (2020). Metody rozpoznawania płodności jako narzędzie profilaktyki zdrowotnej wspierającej proces diagnostyczny zaburzeń zdrowia prokreacyjnego w opinii kobiet w wieku rozrodczym [Fertility awareness based methods as a tool for preventive health care supporting the diagnostic process of reproductive health disorders in opinion of women in reproductive age]. Kwartalnik naukowy Fides et ratio, 3(43). ISSN 2082-7067, 212-215.