"Global Pandemic and Changes in Women's Reproductive Health": An Observational Study

Journal

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Aims of the study

- The global research community accelerated efforts to understand COVID-19 as it rapidly spread across the globe, creating dire public health demands. However, one of the most important yet understudied public health impacts of this pandemic is reproductive health.

- To compare reproductive health indicators in the first six months of 2020 to the prior year, as well as explore stress and quality of life during this time.

Scientific partners

This study was developed in collaboration with experts from University of Erlangen-Nuremberg and Martin C. Koch (chief physician, specialist for gynecology and obstetrics, head of the Breast Center West Middle Franconia).

Why analyze changes in the menstrual cycle during the pandemic?

Previous studies have shown that various factors like stress, diet, and exercise have an impact on the menstrual cycle. The COVID-19 pandemic brought unprecedented lifestyle changes for women who were impacted by national lockdowns, occupational changes, and children at home. Current research is minimal on the impacts of COVID-19 on a woman's menstrual health. Most studies

About Daysy

Daysy is a fertility tracker that determines fertile and infertile days based on the calculothermal measurement method, which can be used to promote conception and monitor menstrual cycles.

looking at the impact of COVID-19 are cross-sectional or limited in only understanding the perceived consequences of the pandemic which lacks real time data to support the reported changes. It is important to understand how the pandemic impacted various reproductive health indicators like cycle length and variability, and basal body temperature (BBT) as well as reported quality of life.

Why a Daysy study?

Valley Electronics was the first provider of fertility trackers in 1983, and has since made it its mission to help women learn, connect and trust their body intelligence - using this unique, best in class data as source, to enable accurate fertility tracking and empowered living. This study combines menstrual tracking data with subjective reporting to analyze, test and evaluate the changes pandemic has made to the menstrual cycles and the general mood of women.

Study Design

This retrospective observational study examined the menstrual cycles of 1,159 women from 15 countries who contributed a total of 13,194 cycles using a fertility tracking device to record their menstrual cycle and BBT data. Data was analysed for the first six months of 2019 and 2020. A survey collected data on stress and quality of life.

Studies results

Characteristics of the study

- Of the women who completed the survey, 81.7% were between 25-39 years old.The majority were in long term (> 3 months) relationships (48.1%) or Married (38.1%) and 87.7% did not have children
- The average cycle length in 2019 was 29.8 days, whereas in 2020 it was 28.7
- The average pre-ovulation phase length in 2019 was 17.12 days, whereas in 2020 it was 16.2

Reported effects of the pandemic

- 38.1% of all women reported being personally affected or having had family members that were affected by COVID-19
- 57.4% of all women reported that the pandemic had direct consequences for them and their families
- 66.4% of women reported feeling sometimes to always stressed because of the pandemic, with health of the family indicated as the biggest stressor

Analysis of changes in the menstrual cycle

- There was a statistically significant difference in the average menstrual cycle length, pre-ovulation phase length, and menstruation length between 2019 and 2020
- The average cycle and pre-ovulation phase was longer in the first six months of 2019, while the average menstruation was slightly longer in 2020
- 44.4% of the study participants reported that they had noticed a change in their menstrual cycle, temperature curve or menstruation in the past 12 months

Conclusion

The study indicates that menstrual cycle indicators changed only slightly in the first six months of 2020 but were still statistically significant. It also identified that perceived changes translated to changes in the menstrual cycle, from this we were able to understand that there was some level of awareness of changes to their menstrual health. Future studies should focus on changes in the menstrual cycle in relation to the peaks of the pandemic and analyze data based on targeted information.

#menstruation #menstrualcycle #daysy #accuracy #pandemic #covid19