The Effects of COVID-19 Related Stress on the Menstrual Cycle of College Women

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Study Design
- Quantitative study
- Data collected from an anonymous survey to analyze the experience of college women and their menstrual cycle during the current COVID-19 pandemic.
- Informed consent will be assumed after the participant reads the information supplied at the start of the surgery and voluntarily continues.

Survey Questions
- General Demographics:
  - Age
  - Age at first menstruation
  - Ethnicity
  - Race
- Personal COVID-19 Experience:
  - Have you been diagnosed with COVID-19?
  - Have you had to quarantine during this pandemic?
  - For how many days?

Methods
- Personal COVID-19 Experience:
  - Quarantine and/or isolation: 75% (118) had experience & the other 25% (39) had none
  - Number of quarantines: 55% (87) of participants had been in quarantine only one time and 45% (70) reported 2 or more instances

Sample
- The link to the survey was shared in email groups associated with women's dormitories at Benedictine College.
- Group chats were also used to share the link.
- Responding women were students at Benedictine College ages 18 to 23

Analysis
- Descriptive statistics for menstrual symptoms during the COVID-19 pandemic
- Study correlations were analyzed to better understand the relationships in question

Results
- 157 college-aged women completed the survey in its entirety.
- The participants reported the following data:
  - COVID-19 Diagnosis: 29% (46) have been positive, 62% (97) had never been diagnosed, and 9% (14) reported they have never been tested
  - Quarantine and/or isolation: 75% (118) had experience & the other 25% (39) had none
  - Number of quarantines: 55% (87) of participants had been in quarantine only one time and 45% (70) reported 2 or more instances

Non-significant correlations exist for period flow or cramping & the top reported COVID-19 stressors:
- changes to school
- staying at home
- social distancing

Discussion
- There was no identifiable bias for the researchers involved in this study.
- Study was limited by time frame followed to complete the project and the size of female student population at Benedictine College.
- Data provided was based on the recollection of participants over the past year of something they may not have been paying attention too. Data would have been more conclusive if a survey was completed at the start of the pandemic and then compared to the one taken a year later.
- Results indicate that more research is needed on this relationship between COVID-19 stressors and the menstrual cycle.

Problem
- COVID-19 has been a unique and new stressor in all our lives.
- Generally, stress is associated with premenstrual symptoms, dysmenorrhea, decreased flow, premenstrual periods, and passage of clots.
- More information on the association and potential causality of stress (specifically stress caused by COVID-19) in relation to premenstrual symptoms needs to be discovered and understood.

Background
- Students who did not have a pre-existing mental health diagnosis saw an increase in symptoms during the COVID-19 pandemic
- Stress is associated with dysmenorrhea
- Reducing stress is important in improving bodily reactions to stress
- Significant association between increased stress scores and painful periods, premenstrual periods, and passage of clots
- Positive association between stress and premenstrual symptoms and decreased flow
- Stress increases progesterone, which is responsible for ovulation
- Stage of the Menstrual Cycle has very little association as a predictor of mood

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Purpose
- Reproductive health is an important part of physical and mental health (as evidenced by multiple research studies). Through research, it is understood that stress can negatively impact the menstrual cycle. As COVID has rapidly become a collective life stressor, how is it affecting the menstrual cycle?

Significance
- Women make up 50.8% of the population of the United States
- They are also nearly half of the paid workforce
- It is important to understand how the pandemic is impacting their quality of life and coping skills in relation to health
- Especially regarding the menstrual cycle