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We sought to evaluate whether patients undergoing FET after PGT-A choose to select for sex, and if sex selection rates differ before and after successful delivery of a first baby.

MATERIALS AND METHODS: This is a retrospective cohort study from a single academic fertility center between January 2013 and February 2021 of all patients with a live birth (LB) after single embryo euploid FET who returned for at least one subsequent euploid FET. Transfers without both sexes available for transfer were excluded. The primary outcomes were the rates of sex selection for first versus second baby. Secondary outcomes were rate of selection for same versus opposite sex as first LB and overall rate of selection for males versus females. Statistical analysis included the Chi-Squared test and Mann Whitney U test with a significance threshold of p<0.05.

RESULTS: 585 patients, aged 25-46 years old, were reviewed and underwent a total of 1,560 single euploid FETs resulting in either one or two LBs. A choice between male and female euploid embryos was available for 919 FETs (1st child 67.5% (519/769) vs. 2nd child 50.6% (400/791), p<0.01). When a choice was available, patients selected the sex more frequently when trying to conceive the second child (1st child 32.4% (168/519) vs. 2nd child 62.0% (248/400), p<0.01). When sex was selected after first LB, the opposite sex of the first child was selected 81.8% (203/248 FETs) of the time. Of transfers that involved sex selection, rates of male and female selection were similar for the first child, but selection for females was greater for the second child (1st child: 51.2% (86/168) male vs. 48.9% (82/168) female; 2nd child: 41.1% (102/248) male vs. 58.9% (146/248) female, p<0.04). There was no difference in median age between patients who selected or did not select for sex (selected: age 35 (25-46) years vs. did not select: age 35 (25-44) years, p=0.51). Although the analysis included only single embryo transfers, it was notable that seven reviewed transfers were double embryo FETs in which patients requested one male and one female. Moreover, one patient chose to transfer a mosaic female embryo instead of an euploid male.

CONCLUSIONS: Patients undergoing PGT-A with both male and female euploid embryos available for transfer were more likely to select for sex after first LB and were most likely to select the opposite sex of their first child. There was no preference for males versus females for transfers leading up to first LB, but selection for females was greater after first LB. These findings highlight the use of PGT-A for family balancing for patients who undergo PGT-A.

IMPACT STATEMENT: When patients are given the knowledge and choice of embryo sex via PGT-A, there is a high rate of sex selection after first live birth. As PGT-A becomes more widely utilized, sex selection may play a larger role in some patients’ fertility journeys.
was also not a significant difference in number of eggs retrieved, percent of mature eggs, or clinical/ongoing pregnancy rates.

CONCLUSIONS: The COVID-19 pandemic has had a negative impact on infertility patient populations. Specifically, COVID patients with infertility experienced decreased mood and less support from family and friends compared to non-COVID patients. While there is no difference in overall quality of life, or fertility and early pregnancy outcomes, understanding the nuances of patients’ experiences in the pandemic will allow for more insight into the way in which care is provided. Additionally, COVID-19 diagnosis and exposure does not appear to affect fertility treatment or early pregnancy outcomes. Therefore patients may be counseled that previous COVID-19 infection or concerns regarding possible exposure do not affect their fertility and early pregnancy outcomes.

IMPACT STATEMENT: This study shows the negative impact of perceived and confirmed COVID-19 exposure on stress levels related to infertility. These findings can guide how IVF patients are counseled and reassured during the pandemic.

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THE RELATIONSHIP BETWEEN PERCEIVED STRESS DURING THE COVID-19 PANDEMIC AND MENSTRUAL CYCLES AND SYMPTOMS.

Shannon M. Malloy, BS1, Danielle E. Bradley, MS, MPH2
1Research & Data Associate, Boston, MA; 2Director of Clinical Services & Evidence, Boston, MA.

OBJECTIVE: The COVID-19 pandemic exacerbated existing and initiated new psychosocial, interpersonal, and environmental stressors. For menstruating people, these stressors may contribute to cycle irregularity and make family building an even more challenging journey. This study investigates the relationship between perceived stress and menstrual cycle and symptom changes during the COVID-19 pandemic.

MATERIALS AND METHODS: A survey was administered to users of Ovia Health’s Fertility mobile application in the United States from March 2020 to April 2021. Items captured changes in menstruation pattern and symptomology and included the Perceived Stress Scale 4-item version (PSS-4). A paired t-test was used to assess differences between groups.

RESULTS: Out of a total of 12,502 respondents, 36% reported experiencing some menstrual cycle and/or symptom changes. Most commonly reported changes included cycle starting early or late (87%), stronger symptoms during menstruation (e.g. low back pain, cramping, discharge changes) (29%), and heavier bleeding during periods (27%). Respondents reporting menstrual cycle or symptom changes tended to score slightly higher on average on the PSS-4 compared to those who did not report any changes (8.5 vs. 8.3, respectively, p < 0.05). PSS-4 scores in this sample were notably higher; P < 0.05 was considered statistically significant.

CONCLUSIONS: These results demonstrate that this sample’s reported stress levels during the pandemic were noticeably higher than pre-pandemic benchmarks, and that these stress levels may contribute to changes in reproductive physiological processes such as menstruation. These changes may be especially frustrating and impactful for individuals trying to conceive and those struggling with infertility.

IMPACT STATEMENT: Reproductive medicine specialists should be aware of the relationship between stress fostered by the COVID-19 pandemic and menstrual pattern disruption, especially for patients trying to conceive with irregular menstrual patterns or those struggling with infertility. Providers should work together with their patients to formulate strategies to mitigate the impact of stress on menstrual cycle changes in order to optimize conception and fertility treatment outcomes.

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