

**P-481 COVID-19 pandemic: the emotional impact comparing men and women on assisted reproductive treatment**

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**Study question:** How has the COVID-19 pandemic affected the psychological aspects of men and women undergoing reproductive treatments?

**Summary answer:** The women were more emotionally affected due to the COVID-19 pandemic than men, especially increasing anxiety and fear of not achieving pregnancy.

**What is known already:** COVID-19 pandemic required changes in behavior and plans of most people worldwide, including patients undergoing assisted reproductive treatment (ART). The reproductive societies recommended immediate cessation of all new fertility treatment cycles, arousing different opinions from patients and providers, concerned that a delay of months may affect clinical outcomes. The fear, social distancing and financial insecurity are enough reasons for worry and anguish, and the uncertainty of resuming plans of parenthood make the scenery even more challenging. Therefore, the psychosocial aspects' evaluation of these patients during the pandemic is fundamental for better comprehension, management, and reception in this especially challenging moment.

**Study design, size, duration:** Cross-sectional study using data from a centre of reproductive medicine between June and August 2020. The sample was composed of 120 patients (54 men and 66 women), 14.16% undergoing frozen embryo transfer (FET), 77.5% in vitro fertilization (FIV), 1.6% semen freezing collection and 6.6% oocyte freezing.

**Participants/materials, setting, methods:** The data were extracted from an electronic questionnaire elaborated by the clinical team, which included questions about the patients' psychological aspects, applied one day before ART. The answers were compared between men and women, and between the types of ART used by each patient. The statistical analysis was made using the program SPSS for Windows. The Chi-Square test was used to compare the study groups, considering  $p < 0.05$  statistically significant.

**Main results and the role of chance:** It was observed that 23/54 (42%) of men and 42/66 (63%) of women were at least partially emotionally affected by the pandemic ( $p=0.027$ ). Comparing feelings between groups (men and women, respectively) the following results were observed: optimistic (42,1% vs 57,9%  $p=0.664$ ), hopeful (32,3% vs 67,7%,  $p=0.098$ ), anxious (22,6% vs 77,4%,  $p=0.004$ ), calm (60,7% vs 39,3%,  $p<0.001$ ). Also, 27% of men and 39.3% of women felt more anguished than normal, which was mostly expressed through anxiety (36.7% vs 63.3%,  $p=0.113$ ), followed by irritability (54.5% vs 45.5%,  $p=0.421$ ), eating habit change (42.5% vs 56.5,  $p=0.962$ ) and sleep disorders (28.6% vs 56.5%,  $p=0.215$ ). Most patients (96.6%) reported having

somebody to share their feelings and didn't want to be contacted by the clinic's psychologist (92.5%); 26.3% of couples had their relationship positively affected. Comparing feelings between patients undergoing FET vs FIV, respectively, were found: optimistic (47.0% vs 29.0%,  $p=0.142$ ) and anxious (23.5% vs 27.9%,  $p=0.70$ ).

**Limitations, reasons for caution:** The data was collected at one point, in the worst moment of the pandemic in Brazil, which may have influenced some of the answers. The small sample size is due to the lower number of procedures in this period.

**Wider implications of the findings:** The feelings were similar between groups. However, women seemed to be more fearful of not being able to realize the parenthood dream. Anxiety was the main symptom in both groups, being more prevalent in women. This study reinforces the importance of having mental health professionals in assisted reproductive clinic.

**Trial registration number:** not applicable

