

The COVID-19 stress may influence on the sex ratio

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Abstract: **Abstract**

The ratio of boys to girls (sex ratio) at birth (SRB) is about 1.01–1.05 in most populations and is influenced by various factors, such as maternal stress, maternal inflammation, and endocrine disruption. Male fetus is biologically weaker and more vulnerable to prenatal events than female fetuses. Hence, premature death (and consequently decline the SRB) is higher in boys than girls. The recent coronavirus disease 2019 (COVID-19) has been known to have a variety of stressful and psychological impacts. This stress may consequently enhance maternal inflammation, pregnancy complication, and fetal loss. Also, male fetuses have more adverse outcomes than female fetuses among asymptomatic pregnant women with SARS-Cov-2 infection. Inasmuch as the male fetus are more vulnerable to prenatal events and premature death, it is proposed that the SRB can decline in pregnant women following the COVID-19 stress. However, future studies are needed to define the impact of the COVID-19 on SRB rate.

Keywords:

Coronavirus disease 2019 COVID-19 sex ratio at birth maternal stress