

Evaluation of Antidepressant Use in Pregnancy and Apgar Score at Birth: A Retrospective Single Centre Australian Study



Epworth
Research

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BACKGROUND

Approximately 15-20% of pregnant women experienced anxiety and/or depression in Australia. Many studies have suggested that selective serotonin reuptake inhibitor (SSRI) is associated with low Apgar score at birth. Apgar score is a standardized way of examining a newborn status and a score of less than seven at 5 minutes could lead to multiple developmental issues in later life. Therefore, it is understandable that pregnant women remain fearful of continuing their antidepressants.

AIM

To investigate the association between maternal use of SSRI and Apgar score of newborns at 1 minute and 5 minutes of life in an Australian cohort.

METHODOLOGY

- **Study design:** Retrospective cohort study
- **Period:** 1st January 2020 - 31st December 2021
- **Site:** Epworth Freemasons hospital
- **Population:** Pregnant women with a history of anxiety and/or depression
- **Inclusion criteria:** SSRI use in pregnancy
- **Exclusion criteria:** Delivery before 36 weeks, multiple pregnancy, known fetal abnormalities
- **Primary outcome:** Presence of low Apgar (<7) at either 1 minute, 5 minutes or both in women who used SSRI in their pregnancy.

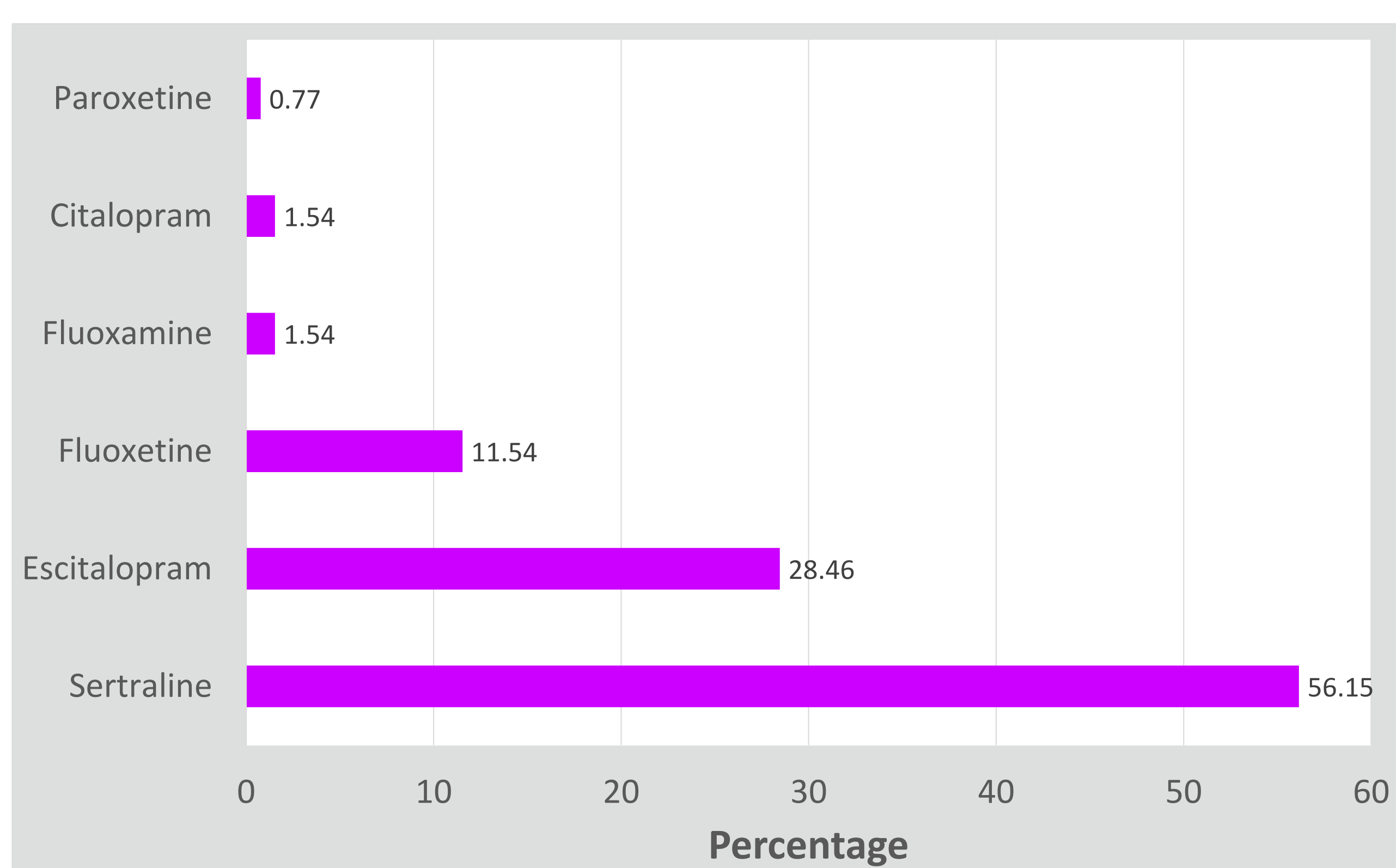


Figure 1. Types of SSRI and frequency

RESULTS

- Sertraline is the most common SSRI used in pregnancy.
- Newborns exposed to SSRIs did not have an increased rate of Apgar score of less than seven at both 1 and 5 minutes of life (OR 4.01, 95% CI 0.21-238.73, $p=0.519$). However, it was noted that the corresponding frequencies were extremely low.
- 1 minute Apgar score of less than seven was not significantly higher in SSRI group (OR 2.11, 95% CI 0.97-4.58, $p=0.058$).
- Apgar score less than seven at 5 minutes was significantly higher in the SSRI group (OR 10.26, 95% CI 1.13-489.94, $p=0.035$). However, after controlling for age, gestation, birthweight and mode of delivery, this was no longer statistically significant ($p=0.059$).

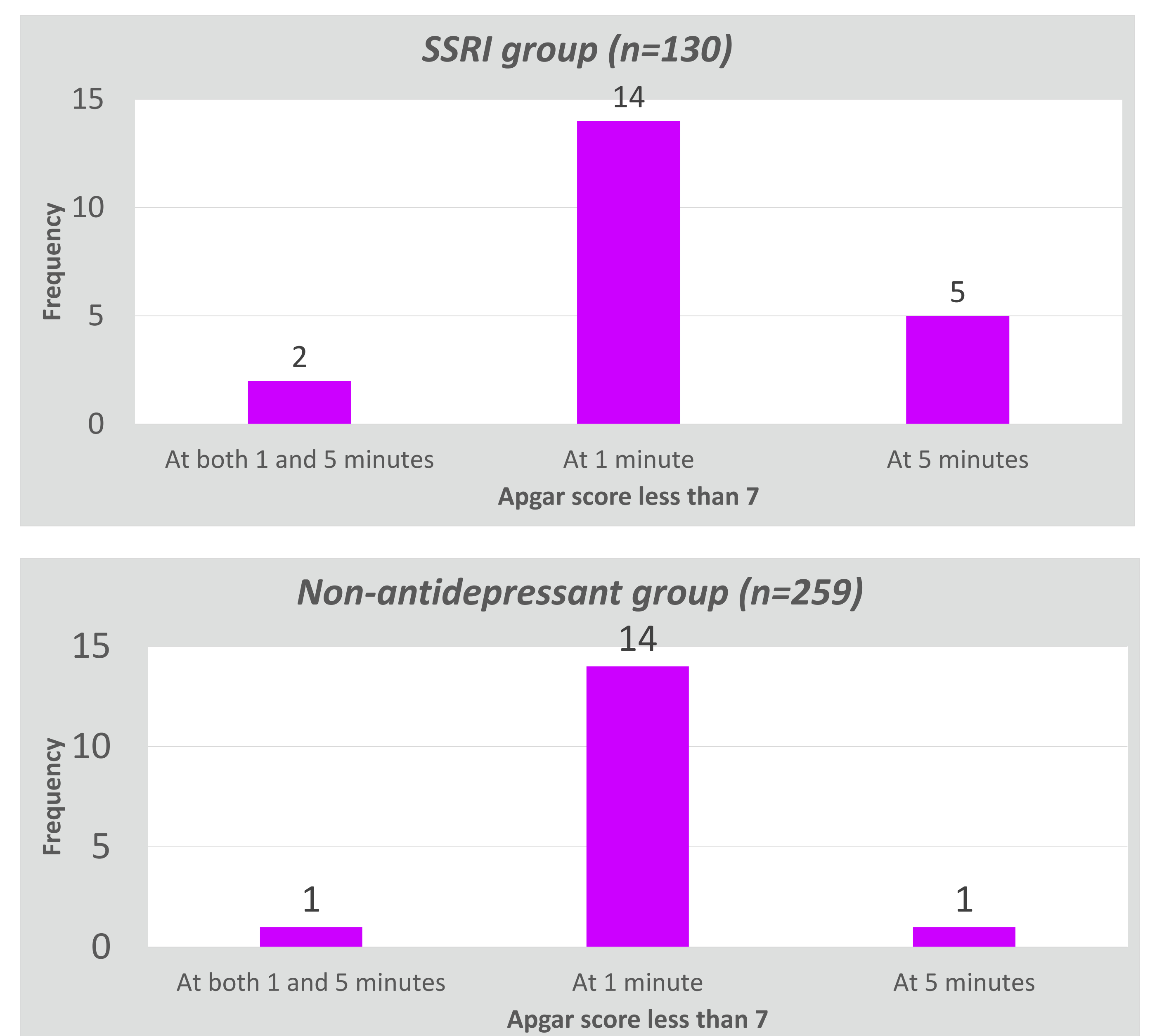


Figure 2. Primary outcome between SSRI group (top) and non-antidepressant group (bottom).

CONCLUSION

- Maternal SSRI use is associated with ten-fold increased risk of low Apgar score at 5 minutes but at 1 minute.
- Further investigation into the impact of SSRI exposure in pregnancy is essential.