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May 2nd, 12:00 AM

Does Esketamine in Cesarean Delivery Increase Postoperative Adversities and Related Diseases?

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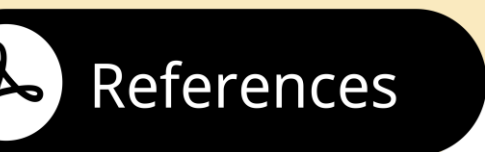
Daniel, Cheryce and Coombs, Kylon, "Does Esketamine in Cesarean Delivery Increase Postoperative Adversities and Related Diseases?" (2024). *Rowan-Virtua Research Day*. 111.
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Does esketamine in cesarean delivery increase postoperative adversities and related diseases?

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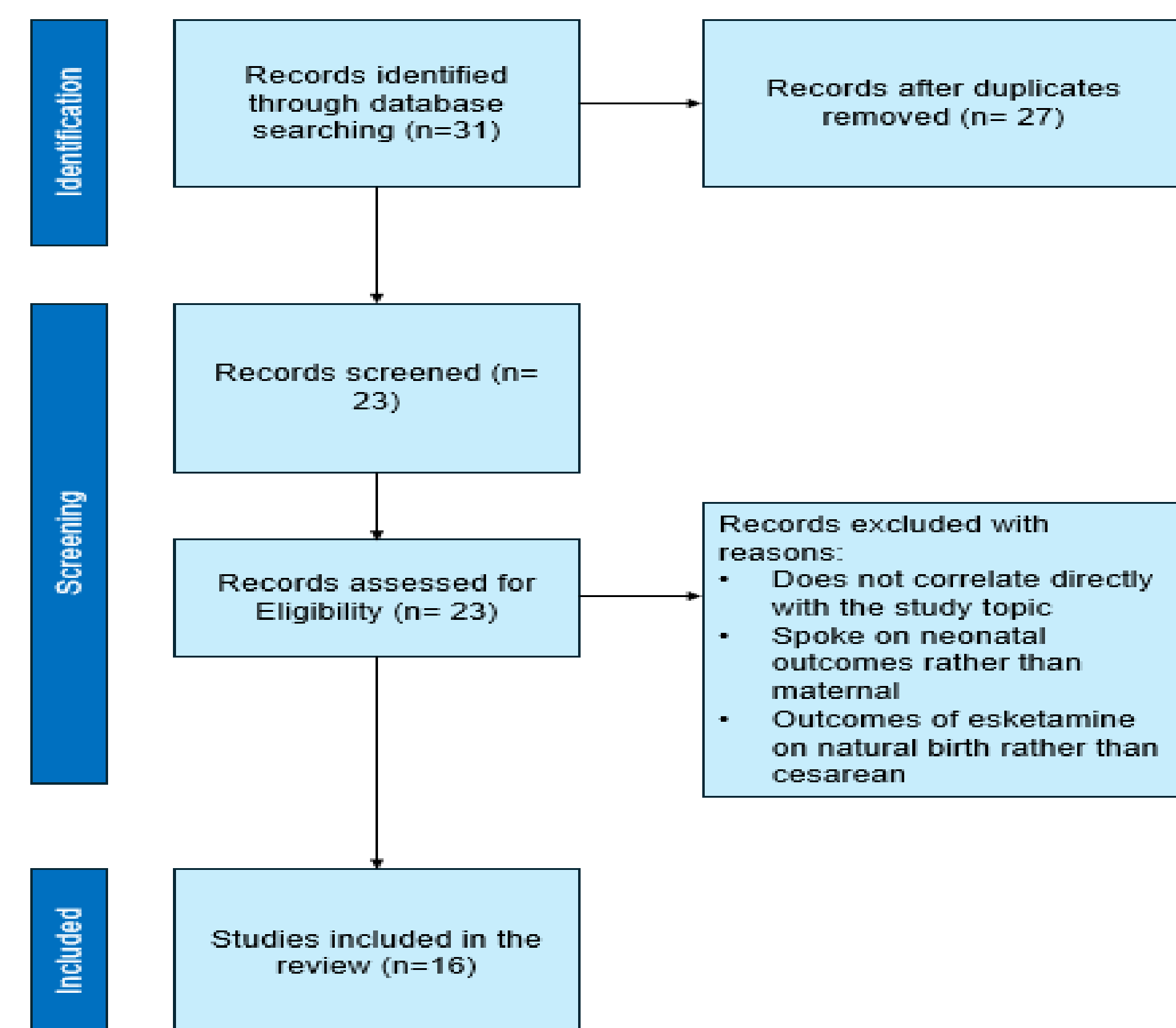
INTRODUCTION

Esketamine has emerged as a promising treatment option, particularly noted for its effectiveness in reducing postpartum depression, alleviating pain, and promoting faster recovery. Despite its therapeutic benefits, recent research has raised concerns regarding potential adverse effects associated with high doses of esketamine in patients. Specifically, there is growing interest in understanding the potential risks linked to the administration of esketamine during cesarean delivery, given its increasing use in obstetric anesthesia.

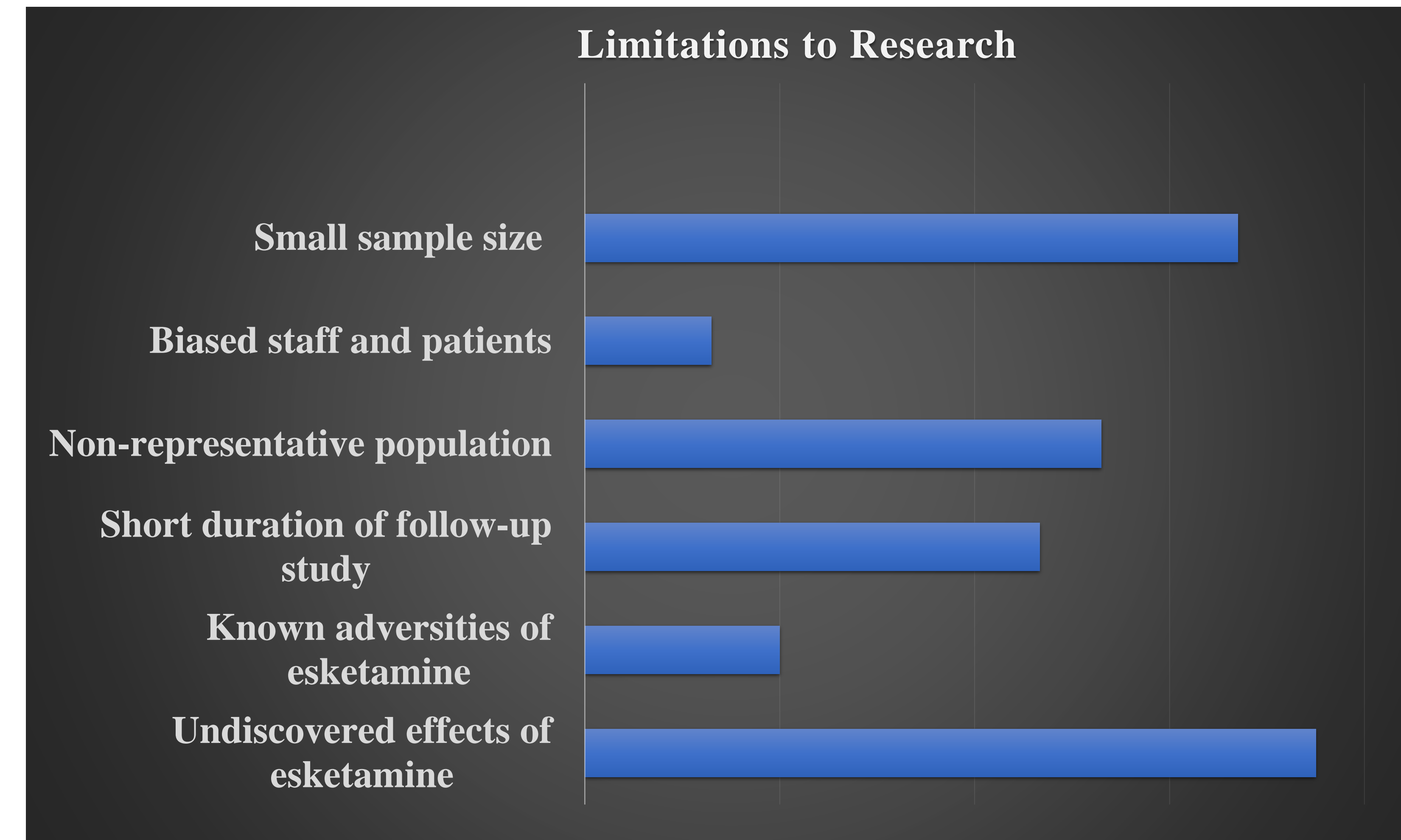
This comprehensive review aims to investigate the potential associations between the use of esketamine during cesarean delivery and the subsequent risk of related diseases or physiological disorders. The goal is to provide clinicians and researchers with valuable insights into the safety profile of esketamine when administered during cesarean delivery, thereby informing clinical practice and guiding future research directions.

METHODS

- The databases used were Embase, PubMed, Scopus, and Web of Science
- Search terms = “esketamine cesarean effects”, “esketamine cesarean patients”, “esketamine c-section” and “esketamine”
- Inclusion Criteria
 - Published between January 1, 2003 and January 28th, 2024
 - English Language & General Population



RESULTS



- Limitations to the Research found included :
 - A small sample size reduces the statistical power of the study, making it more challenging to detect significant differences between esketamine use during cesarean delivery
 - A non-representative population may not accurately reflect the characteristics and diversity of patients who receive esketamine during cesarean delivery in clinical practice
 - Biased staff and patients may introduce systemic bias into the study affecting the reliability of the data collected
 - A short duration of a follow up study does not allow for proper documentation of long-term effects of esketamine use to be documented accurately and serves as an incomplete evaluation or underestimation of potential risks
 - Limited known adversities and undiscovered adversities lead to an incomplete safety profile while potentially overlooking important adverse effects

DISCUSSION

- Further research is essential to elucidate the potential adverse effects of esketamine administration. Existing literature underscores the critical need for robust, representative data to accurately assess the safety profile of esketamine, particularly when used during cesarean delivery.
- Current studies have highlighted a range of potential concerns, including but not limited to:
 - Neuronal symptoms
 - Placental abruption
 - Placenta previa and other unspecified adversities.
- However, the available data remains insufficient to draw definitive conclusions regarding the specific risks associated with esketamine. A thorough study is required to conclusively evaluate the safety and potential drawbacks of esketamine in obstetric anesthesia.

CONCLUSION

- To properly assess the effects of esketamine, future research should focus on long-term outcomes and ensure that the data collected is diverse and representative of the studied population. Specifically, there is a need to:
 - Further investigate the impact of esketamine on neuronal symptoms
 - Identify and evaluate the risk factors contributing to placental abruption and placenta previa
 - Examine the psychosocial impacts of esketamine on maternal mental health to provide a more holistic understanding of its safety profile and potential drawbacks in obstetric anesthesia
 - Explore the specific psychosocial impacts of esketamine such as development of schizophrenia in the cesarean population
 - Evaluate the potential for drug interactions and contraindications associated with esketamine use in obstetric anesthesia