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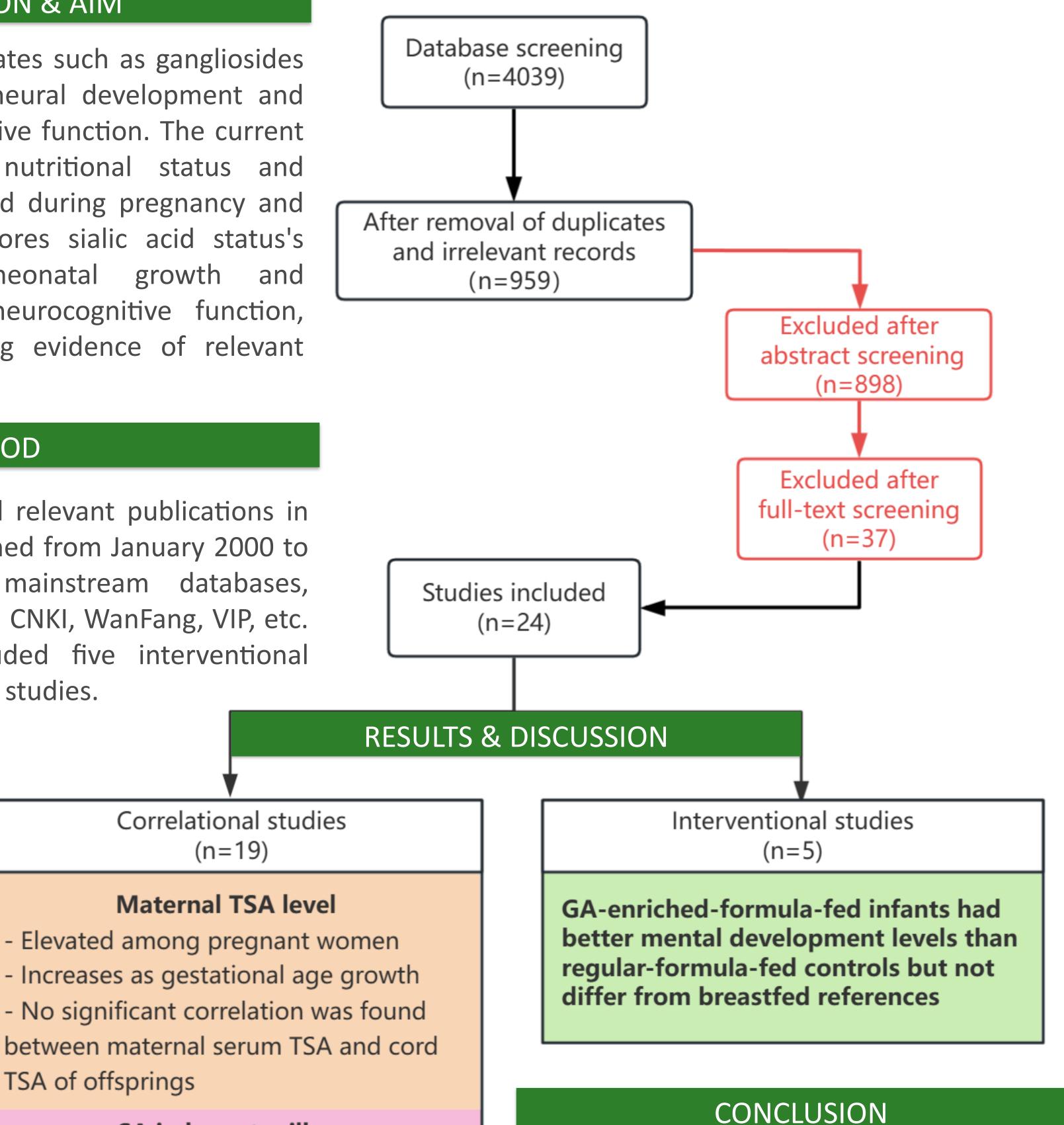
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Maternal and Neonatal Sialic Acid Status and Infant Neural Development

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INTRODUCTION & AIM

Sialic acids and sialoconjugates such as gangliosides (GA) are crucial in early neural development and could further impact cognitive function. The current review summarizes the nutritional status and variation trend of sialic acid during pregnancy and the perinatal period, explores sialic acid status's potential impact on neonatal growth and development, especially neurocognitive function, and concludes the existing evidence of relevant interventional studies.



METHOD

We searched and collected relevant publications in English and Chinese published from January 2000 to September 2022 from mainstream databases, including PubMed, Embase, CNKI, WanFang, VIP, etc. The current review included five interventional studies and 19 correlational studies.

- Decreases over time
- Ranging from 0.3-1.6 mg/ml
- Both SA and GA levels are higher in breast milk than in cow milk and formula

SA in breast milk

- Can be affected by behavioral factors

SA and early development

 Impact on long-term cognitive function
Maternal, breast milk, and cord TSA are inversely correlated with infants' mental and motor development levels Based on the current evidence body, it is necessary to emphasize the importance of maternal sialic acid status and further investigate its influencing factors.

REFERENCES

The reference list can be downloaded at: <u>https://file.io/ISTISDpX3j2A</u>