

The effect of antenatal depressive and anxious symptoms on the rate of physiological births

Robert Grogan¹ and Akash Srinivasan¹

¹Imperial College London

August 24, 2022

The effect of antenatal depressive and anxious symptoms on the rate of physiological births

A comment on the recently published article by Hulsbosch et al:

Association between high levels of comorbid anxiety and depressive symptoms and decreased likelihood of birth without intervention: A longitudinal prospective cohort study

Authors:

Mr Robert James Grogan BSc (Hons)

School of Medicine

Imperial College London

Level 2, Faculty Building

South Kensington Campus

London SW7 2AZ, UK

robert.grogan17@imperial.ac.uk

07730175614

Mr Akash Srinivasan BSc (Hons)

School of Medicine

Imperial College London

Level 2, Faculty Building

South Kensington Campus

London SW7 2AZ, UK

akash.srinivasan17@imperial.ac.uk

07555373478

Dear Editor,

We read with interest the recently published article by Hulsbosch et al, which investigated an association between co-morbid anxiety and depression (CAD) symptoms during pregnancy, and the likelihood of a physiological birth (defined as birth at term free from intervention during labour, with a healthy mother and baby). This prospective longitudinal cohort study used validated depression and anxiety scales completed

by participants at each trimester of their pregnancy to group them into three categories depending on the frequency of high CAD levels. The study found that there was a significantly lower rate of physiological births in the group with persistently high levels of CAD symptoms levels compared to those with persistently low level of CAD symptoms.

The study achieves novelty in its investigation of both depression and anxiety and their implications for physiological births. Figure S2 reveals that within the group with “persistently high levels of CAD symptoms”, some women had reducing anxiety alongside increasing depression, and vice versa, showing the importance of viewing these two symptoms in tandem.

Although important confounders were considered, including complications in pregnancy being studied, previous traumatic births were not accounted for or discussed. Evidence suggests that having previous traumatic births can both increase both depression and anxiety, and also increase the risk of future non-physiological births, in subsequent pregnancies. It would therefore be pertinent to ensure that the “persistently anxious” group did not have a history of traumatic childbirth.

The authors discuss the possibility that CAD symptoms in pregnancy may alter the release of stress hormones to cause an effect on labour, which may reduce the physiological birth rate. It must be noted that the studies cited to support this all refer to stress hormone levels after the onset of labour, and to our knowledge there are no studies investigating antenatal stress hormone levels and their association with physiological births. Given that this was a prospective study, intrapartum anxiety levels could have been assessed to examine whether antenatal anxiety indeed affects physiological birth rate independent of intrapartum anxiety. The alternate hypothesis for why women with high levels of CAD may have reduced physiological birth was that women with persistent CAD levels may have reduced self-efficacy. This could be further explored by determining from the notes whether the interventions that rendered the birth non-physiological were medically required, or mainly the choice of the patient.

In conclusion, this article provides an interesting insight into how a woman’s mental wellbeing during pregnancy may affect their physical birthing outcome. It did so in a large population and used data across all trimesters of pregnancy using validated scales. However, important confounders required discussion, particularly relating to previous birthing experiences for multiparous women. Furthermore, to provide more useful clinical information, such as whether self-efficacy surrounding natural childbirth should be focused on in antenatal counselling for women with persistent CAD symptoms, more information about the woman’s intrapartum anxiety, and what made the births non-physiological, could have been collected.

References

Each author contributed equally to the research, writing of the script, and proofreading.

No funding to declare

No ethical approval required

Declaration of interests:

Mr Robert Grogan and Mr Akash Srinivasan have no conflicting interests to declare