# Biases in association with complications in puerperae during the pandemic

The pelvic floor is composed of a group of muscles and ligaments connected to bony structures that fuse and support the abdominal and pelvic organs that during pregnancy suffer greater pressure.[1] During childbirth, there may be myogenic, neurogenic, and/or damage that, in most cases, have reversible alterations.[1] There may occur perineal lacerations during vaginal delivery; pelvic organ prolapse, protrusion of these organs through the vaginal opening; urinary incontinence; sexual dysfunction because of the pain during intercourse, decreases the libido.[1,2] It is important to emphasize that not all women face pelvic wall complications during labor. There are preventive and therapeutic strategies available pre-, during, and postpartum to minimize the impact of these complications.[1]

During the pandemic, maternity hospitals continued to operate, but with some preventive measures against the Sars-Cov-2 virus, since pregnant women had entered as a risk group for developing Covid-19 according to the World Health Organization. Moreover, the disease has high infectivity, impacting maternal and perinatal health, in addition to the necessity to protect the professional staff.[3,4] One of the measures acquired in some maternity hospitals was the companion's prevention during labor, however, resulting in emotional distress and a feeling of helplessness for the parturient women, corroborating the breakdown of sensory and interactive exchanges between the family and the baby.[3] Thus, it was noted that pregnant women suffered greatly with this difficulty during the pandemic.

Nandi *et al*.[5] study addresses the perineal complications of the postpartum period during the Covid-19 pandemic. Wisely, the authors approached conditioning clinical-gestational as well as the contextual in association with the onset of postpartum complications.

However, in order to estimate the main effects of the putative conditioning factors, the authors applied an analytical approach not appropriate for the design, binary logistic regression with the effect measure being the odds ratio. This approach in a cross-sectional and longitudinal studies with frequency above 10% produces point and interval oversampled estimates.[6]

This can lead to situations where an independent variable that would be significant in the model turns out not to be, such as the variable of "COVID during pregnancy", due to too imprecise confidence intervals, which also generate imprecision in decision making on the magnitude of interventions as in the variable "hospitalized during pregnancy". Moreover, in synthesis studies such as systematic reviews with meta-analysis, it contributes to the lack of effect of potentially related variables. All of this sets up the increased likelihood of both false negatives and false positives.

Therefore, we suggest that the authors analyze their data by applying a prospective design approach, because the independent variables clearly precede the outcome, through Poisson regression.[6] This same analytical approach can be used in a cross-sectional design if the authors understand this design.

## Authors' contribution

Leite MO, Matheus APR, Alves MP, Sobral LR and Silva KS: research, methodology, writing - original draft, writing - revision and editing. Lopes JM: conceptualization, formal analysis, investigation, methodology, project management, supervision, validation, visualization, writing - original draft, writing - revision and editing. All authors have approved the final version of the article and declare no conflict of interest.



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