



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

relevant effect of the different NNSs on the gut microbiota.⁴ Moreover, as chemically diverse substances with varied kinetics, that is, absorption profiles, metabolic and excretion pathways, NNSs should be evaluated individually with regard to their potential health effects.

Therefore, Palatnik et al¹ did the healthcare community of obstetricians and gynecologists and their patients a disservice with their alarmist conclusions that relied only on studies that were not suitably designed for a reliable characterization of the effects of any approved NNS. ■

Vasiliki Pyrogianni, MSc

International Sweeteners Association (ISA)

Avenue de Tervueren, 13A

Boite 7, B-1040

Brussels, Belgium

scientificdirector@sweeteners.org

V.P. is a consultant to the International Sweeteners Association.

REFERENCES

1. Palatnik A, Moosreiner A, Olivier-Van Stichelen S. Consumption of non-nutritive sweeteners during pregnancy. *Am J Obstet Gynecol* 2020;223:211–8.
2. Organisation for Economic Cooperation and Development. OECD guidelines for the testing of chemicals, section 4. OECD iLibrary. 2020. Available at: https://www.oecd-ilibrary.org/environment/oecd-guidelines-for-the-testing-of-chemicals-section-4-health-effects_20745788. Accessed April 30, 2020.
3. Morahan HL, Leenaars CHC, Boakes RA, Rooney KB. Metabolic and behavioural effects of prenatal exposure to non-nutritive sweeteners: a systematic review and meta-analysis of rodent models. *Physiol Behav* 2020;213:112696.
4. Plaza-Diaz J, Pastor-Villaescusa B, Rueda-Robles A, Abadia-Molina F, Ruiz-Ojeda FJ. Plausible biological interactions of low- and non-calorie sweeteners with the intestinal microbiota: an update of recent studies. *Nutrients* 2020;12:1153.

© 2020 Elsevier Inc. All rights reserved. <https://doi.org/10.1016/j.ajog.2020.08.024>

REPLY



We thank Ms Pyrogianni for her interest in our clinical opinion paper entitled “Consumption of non-nutritive sweeteners during pregnancy” and her comments.

We state that the article intends to present the prevalence of nonnutritive sweetener (NNS) consumption in pregnant women and to highlight pieces of literature that have been overlooked by health professionals. It is also not a systematic review and should not be treated as such.

It should also be noted that we have no conflict of interest in NNS research and that the food industry did not fund our research. Therefore, we are merely advising caution and emphasizing the need for more research on NNS exposure during healthy gestation or pregnancy complications.

We acknowledge that both papers referenced in the Letters to the Editors on the effect of NNS on the microbiome are optimistic on their effects. However, these systematic reviews are either not focusing on the microbiome or not precisely looking at pregnancy exposure.^{1,2} Therefore, we emphasize the need for a more specific study in that matter.

Once again, we appreciate the supplemental information provided and welcome their addition to our clinical opinion paper. ■

Anna Palatnik, MD

Andrea Moosreiner, MPH, RD, CD

Stephanie Olivier-Van Stichelen, PhD

Department of Biochemistry

Medical College of Wisconsin

8701 Watertown Plank Rd

Milwaukee, WI 53226

solvier@mcw.edu

The authors report no conflict of interest.

This study received no financial support.

REFERENCES

1. Morahan HL, Leenaars CHC, Boakes RA, Rooney KB. Metabolic and behavioural effects of prenatal exposure to non-nutritive sweeteners: a systematic review and meta-analysis of rodent models. *Physiol Behav* 2020;213:112696.
2. Plaza-Diaz J, Pastor-Villaescusa B, Rueda-Robles A, Abadia-Molina F, Ruiz-Ojeda FJ. Plausible biological interactions of low- and non-calorie sweeteners with the intestinal microbiota: an update of recent studies. *Nutrients* 2020;12:1153.

© 2020 Published by Elsevier Inc. <https://doi.org/10.1016/j.ajog.2020.08.025>

Delivery table shield to assist suspected and confirmed severe acute respiratory syndrome coronavirus 2—positive women in labor



TO THE EDITORS: We read with interest the article by Sahin et al.¹ The authors describe an inhouse designed delivery table shield to be used as an additional protective equipment when assisting suspected or confirmed severe acute respiratory

syndrome coronavirus 2 (SARS-CoV-2)—positive women in labor. Although we believe that healthcare workers’ protection comes first and foremost during these challenging times, we have some concerns regarding the proposed use of this device.

The coronavirus disease 2019 (COVID-19) pandemic has led to abrupt modifications in the management of antenatal visits, delivery, and postpartum period.^{2,3} Telehealth services have been largely implemented to reduce in-person contacts, and in some cases, policies that prohibit the presence of a support person during labor and require temporary separation of mothers with SARS-CoV-2 infection from their newborns have been instituted. Altogether, these changes have taken their toll on women's mental health, with potential unforeseen consequences for them, their newborns, and their close family members.⁴

Both continuous companionship and application of mobility and upright positions during labor are usually recommended for all pregnant women to improve childbirth experience.⁵ In addition, these interventions have been associated with improved outcomes for women in labor, including decreased risk of cesarean delivery.⁶ This is particularly important in an already at-risk pregnant population such as those with suspected or confirmed COVID-19.⁷

Owing to the COVID-19 pandemic, some women are being deprived of their right to have a support person during labor and to experience mother-baby early bonding as part of measures implemented to prevent the transmission of the virus. Thus, favoring frequent position changes to enhance maternal comfort and promote optimal fetal positioning should be mandatory whenever possible. As obstetricians and midwives, our duty is to protect the expecting mothers and their neonates and to provide them the best care possible. Simple and cost-effective interventions proven to be beneficial to women in labor, such as mobility and alternative positions, should always be promoted and even more so in these difficult times. The delivery table shield proposed by Sahin and colleagues enforces a lithotomic position and creates an additional barrier to interaction between the woman and the physician or midwife during the delicate moments of pushing when physical and emotional support is needed the most. We believe the use of this shield should be discouraged unless adequate personal protective equipment for the assisting physicians or midwives is unavailable. ■

Sara Ornaghi, MD, PhD
Department of Obstetrics and Gynecology
MBBM Foundation at San Gerardo Hospital
School of Medicine and Surgery
University of Milano-Bicocca

via Cadore 48, 20900 Monza, Italy
Sara.ornaghi@unimib.it

Simona Fumagalli, RM, BMid, MSc, PhD
Department of Obstetrics and Gynecology
San Gerardo Hospital
School of Medicine and Surgery
University of Milano-Bicocca
Monza, Italy

Antonella Nespoli, RM, BMid, MSc, PhD
School of Medicine and Surgery
University of Milano-Bicocca
Monza, Italy

Patrizia Vergani, MD
Department of Obstetrics and Gynecology
MBBM Foundation at San Gerardo Hospital
School of Medicine and Surgery
University of Milano-Bicocca
Monza, Italy

The authors report no conflict of interest.

REFERENCES

1. Sahin D, Erol SA, Tanacan A, Ozcan N, Keskin HL, Tekin OM. Protective equipment to use in the vaginal delivery of the pregnant women with suspected/diagnosed COVID-19: delivery table shield. *Am J Obstet Gynecol* 2020. [Epub ahead of print].
2. Arora KS, Mauch JT, Gibson KS. Labor and delivery visitor policies during the COVID-19 pandemic: balancing risks and benefits. *JAMA* 2020. [Epub ahead of print].
3. von Dadelszen P, Khalil A, Wolfe I, Kametas NA, O'Brien P, Magee LA. "Women and children last"-effects of the covid-19 pandemic on reproductive, perinatal, and pediatric health. *BMJ* 2020;369:m2287.
4. Berthelot N, Lemieux R, Garon-Bissonnette J, Drouin-Maziade C, Martel É, Maziade M. Uptrend in distress and psychiatric symptomatology in pregnant women during the coronavirus disease 2019 pandemic. *Acta Obstet Gynecol Scand* 2020;99:848–55.
5. World Health Organization. WHO recommendations: intrapartum care for a positive childbirth experience. Geneva, Switzerland: World Health Organization; 2018.
6. ACOG Committee Opinion No. 766: approaches to limit intervention during labor and birth. *Obstet Gynecol* 2019;133:e164–73.
7. Martínez-Perez O, Vouga M, Cruz Melguizo S, et al. Association between mode of delivery among pregnant women with COVID-19 and maternal and neonatal outcomes in Spain. *JAMA* 2020. [Epub ahead of print].

© 2020 Elsevier Inc. All rights reserved. <https://doi.org/10.1016/j.ajog.2020.07.022>

Response to concerns about the use of delivery table shield in the vaginal delivery of the pregnant women with suspected/diagnosed COVID-19



We would like to thank Ornaghi and colleagues for their interest in our article.¹ The authors expressed their concerns that the delivery table shield may have a negative

impact on the psychology, mobility, and breathing of pregnant women during delivery. However, as mentioned in our study, it was only used in the second stage of labor