

Re: Neonatal Abstinence Syndrome and High School Performance Response (Authors' Response)

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We thank Prof Terplan and colleagues for their commentary on our article. We agree that the criteria used to define NAS in our study were restrictive (International Classification of Diseases, 10th Revision code P96.1) and that there was no information on important clinical and social details that may have had potential impact on a child's learning ability, such as type of specific drug exposure or social issues.

This is indeed a deficiency that is well acknowledged by studies based on administrative data but is not a reason to ignore such data, which should be used cautiously to inform future policy and practice. Acquiring alternative data from individual patients on a large scale will be prohibitively expensive and may not be feasible because of the cost and possibly high attrition rates in such a chaotic population.

We agree that our results must be interpreted cautiously but do not believe that our study represents "an inaccurate association . . . [that] may drive women away from essential treatment." Mothers cannot be stopped from using drugs. Many mothers need drugs for their physical and psychological health, and some of these drugs may also cause NAS. Our study does not provide proof of causality, despite the demographic control variables used. What we present, rather, are novel data associating a diagnosis of NAS with poor school outcomes, which, regardless of the cause, allows early identification and intervention for the children, which in high-risk populations can lead to benefits for the children and their families, even in the second or third decade of life.

Current resources, both research and clinical, are overwhelmingly focused on hospital treatment of NAS. There is little information or guidance for clinicians or policymakers for the management of children and families affected by NAS beyond infancy. Academic success contributes to well-being and radically improves the chances for a child becoming a productive adult rather than a drain on

society. With the right type of support, any child can perform better at school, and this effect has been shown to flow on for decades and even until subsequent generations. Ignoring this effect in a population that is easily identifiable from birth will do a great disservice to thousands of children and families worldwide.

We therefore strongly agree with Prof Terplan and colleagues' suggestion that "well-funded, prospective studies" must be urgently conducted so that we can learn how to prevent more harm to an already vulnerable population, but rather than stopping at hospital discharge, support and care for children with NAS must be continued beyond infancy and beyond resolution of NAS.