

The Disappearing Link Between Pregnancy and Drinking

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Abstract

The conclusions of Kelley et al. (2010) that light drinking has no harmful effects on young children was based on evidence from correlational studies combined with insufficient assessment of weaknesses in the data and alternative explanations. Their findings consisted of self-reported data and actually found that alcohol has beneficial effects by reducing behavioral difficulties in early childhood. Due to the correlational nature of this study, cause-and-effect cannot be concluded. Pregnant women and health care workers should not yet take any actions whatsoever based on this study. The time has come for randomized clinical trials on this topic.

The findings by Kelley et al. (2010) were found in newspapers and TV shows and presented as evidence that light drinking during pregnancy may not be harmful after all. The study cannot be used as a dependable indication that low amounts of alcohol are beneficial to children, because the amount of alcohol consumed was measured by a self-report of the mother. Self-reported data on alcohol consumption does not produce accurate findings, as found in previous studies (Davis et al., 2010; Whitford et al., 2009). In addition to this, due to the use of a non-experimental design in the study by Kelley et al. (2010), there could have been a number of intervening variables that remain undiscovered and account for the absence of association between these two variables. The

authors point to several that they accounted for to some degree, but understate the fact that causal inference is impossible, rather than just limited as they indicated. Yet, the authors use wording in the abstract conclusion of “not increased risk” which also overstates the findings. This wording implies that they somehow showed a cause-and-effect relationship between prenatal alcohol exposure and postnatal behavioral problems. A more cautious wording would have been better to prevent misunderstanding by the readers.

The authors downplay the observation that mothers in their light drinking category had children who had fewer behavioral problems than mothers who did not drink at all. In other words, light drinking during pregnancy is beneficial, if their findings are any indication. The question is why did the authors not state that light drinking by the mother during pregnancy is beneficial for

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children? The answer might be that it would put a spotlight on the flaws in the study methodology.

One other point is that negative effects of prenatal alcohol cannot accurately be studied unless the study is lifelong. Studying the child in question, at the age of five does not demonstrate later consequences that could emerge clear into adulthood. Finally, one drink once a week during pregnancy may not have the same effects on one woman as it does another due to genetic, dietary, and other differences. For these reasons, pregnant women and health care workers should not yet take any actions whatsoever based on this study. Until a well-executed experimental study with random assignment is conducted on this important topic, the answer will remain unknowable. Light drinking during pregnancy must be soundly discouraged – not encouraged -- until proven otherwise.

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