

Email and attached letter to JAMA Pediatrics editor, sent November 5, 2014

(Note: Immediately below is the email we sent, to which we attached a letter to the editor and any statistical consultant(s) they may have retained, which is immediately below that.)

Email

Dear Dr. Rivara,

We would like to delay submitting a letter for publication (and the authors' response) until we know the outcome of your journal's review of the paper, given our critique. Depending on the outcome of such a review, we may not feel the need to publish a letter at all. We only want the paper to be independently reviewed by a neutral third party with sufficient expertise to evaluate their data, analyses, interpretations and conclusions.

In an effort to contribute constructively to that process, we offer the attached letter outlining what our extensive review has revealed to be key considerations.

[I have removed the final paragraph, where we responded to the editor's statement, in his prior message to us, that our original letter "sounds like you believe there has been scientific misconduct on the part of the authors, and to some degree the journal."]

Best wishes,

Jim

Attached Letter

To the Editor and Independent Consultant:

In "A Trajectory Analysis of the Campus Serial Rapist Assumption," Swartout and colleagues (1) introduce a restrictive definition of "serial rapist" and present findings from complex analyses, which they claim challenge the long-standing assumption that the majority of (campus) rapists are serial rapists (2).

Rather than defining a serial rapist as someone who reports committing multiple rapes, they define a serial rapist as someone who reports committing rape during at least two of four assessment periods. With this restrictive definition, even subjects who reported "more than 5" rapes on a single item of the survey in a single 8- or 12-month period are not a serial rapist. And such subjects certainly exist, as those

who inspect the publicly available “derivation” dataset can see for themselves. Also in contrast to prior studies (2, 3), they exclude attempted rapes. Such a definition of serial rape does not link to prior research, making their challenge to the serial rapist assumption an “apples to oranges” comparison.

Most of the paper’s analytic problems – very serious ones when it comes to scientific validity, and the validity of the authors’ interpretations and conclusions – are not apparent to the reader (nor to its pre-publication peer reviewers). Only a close examination of the data and statistical models reveals them.

An expert in SPSS and Mplus can examine the paper’s scientific validity and evaluate whether our critique is valid, if he or she has access to (a) the original datasets (which includes full information about the frequencies for each rape item of the survey at each assessment period), (b) the analysis datasets for both the “derivation” and “validation” samples, and (c) the analysis code employed.

Such an expert can examine the data and models for errors, and consider the following with respect to the authors' choices: (1) Is a trajectory model a good descriptor of the change in the probability of rape over time? That is, do the trajectory constraints significantly degrade the fit of the model? (2) Is a latent class model an appropriate descriptor of the data? That is, are the estimated class-specific parameters significantly different across classes? (3) Does the authors’ complex statistical model add value over a simple comparison of proportions when testing the assumption that serial rapists are the majority among rapists? (4) Are model assumptions viable, e.g., the missing at random assumption? Were sensitivity tests for robustness of the findings done?

Beyond statistical considerations, appropriate experts should assess the validity of other author choices, including: (1) Do their operationalizations of rape and serial rape underestimate both, in ways that bias the findings? (2) Are subjects who dropped out of the study appropriately handled, not categorized as “not serial rapist” as an artifact of having dropped out? (3) Does inclusion of non-rapists in the analysis sample add clarity to testing the hypothesis that the largest *proportion of rapists* are serial rapists?

Thank you for your consideration. If you or independent consultants have any questions about these issues, please do not hesitate to contact us.

Sincerely,

Jim Hopper, David Lisak, and Allison Tracy