

Peer Review

Review of: "Graphical Examples Show Why Caution Is Required When Using the Coefficient of Determination (R^2) to Interpret Data for Medical Case Reports"

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The paper raises an important issue—namely, the limitations of using the coefficient of determination (R^2) for interpreting results in single-patient clinical data. However, there are several methodological and conceptual concerns that need justification before the findings can be interpreted appropriately.

I have four main concerns about this manuscript.

- 1) The use of an ordinal dependent variable instead of a quantitative variable.
- 2) Data are longitudinal in nature, meaning repeated measures are collected from the same subject over time. This violates the assumption of independence required for ordinary least squares regression and for a straightforward interpretation of R^2 .
- 3) The pre-post treatment configuration is not adequately captured by the proposed analysis, and a regression model is more suitable to account for the treatment effect directly (if data from more subjects are available)
- 4) The author applies interpretive considerations of R^2 within a single-case framework, which is conceptually challenging.

Declarations

Potential competing interests: No potential competing interests to declare.