Improving the interpretation of binary and count models.

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Discrete outcome distributions are common in clinical science, including binary outcomes (relapse, presence of a diagnosis) and count outcomes (number of symptoms, problem behaviors endorsed). Generalized linear models (GzLMs) provide a flexible means of representing these non-normal outcome distributions. However, the non-linear nature of the parameters they produce (e.g., odds ratios, rate ratios) makes interpretation less straightforward than for models assuming normality. Methodologists have proposed interpreting these models in the original units of the outcome (e.g., probabilities, counts ), yet applied researchers typically rely on odds ratios or rate ratios. We reviewed all articles published in the *Journal of Abnormal Psychology* and *Journal of Consulting and Clinical Psychology* between 2007 and 2017 that reported using a GzLM (*n* =55). It was common practice (81% of papers) for researchers to provide odds ratios and/or risk ratios. Only two papers (4%) communicated findings in units of the original binary or count outcome. The current manuscript provides a tutorial on interpreting model coefficients from binary and count models. We advocate for extracting quantities of direct substantive interest and displaying these quantities in simple visual displays. We introduce a free and easy-to-use web application allowing researchers to display model results in an easy-to-understand format.