

Annotated Equation

The diagram shows a logistic regression equation with four terms. Each term is enclosed in a colored box: a blue box for the intercept β_0 , a red box for the violence term $\Sigma \beta_v \text{violence}_v$, a light blue box for the covariates term $\Sigma \beta_k \text{covariate}_k$, and an orange box for the country term u_{0j} . Colored arrows point from descriptive labels to these boxes: a blue arrow from 'baseline log odds' to β_0 , a red arrow from 'violence' to the violence term, a light blue arrow from 'covariates' to the covariates term, and an orange arrow from 'country' to u_{0j} . A purple arrow points from the label 'logarithm of odds of physical abuse' to the left side of the equation.

$$\ln \left(\frac{p(\text{physical abuse})}{1 - p(\text{physical abuse})} \right) = \beta_0 + \Sigma \beta_v \text{violence}_v + \Sigma \beta_k \text{covariate}_k + u_{0j}$$

baseline log odds

logarithm of odds of physical abuse

violence

covariates

country