We created a Shiny application that allows users to upload their data and create an evidence gap map. The App will also generate R syntax fitting the data and variables that the users input.

In the Load Data tab, users can upload either an effect size-level data or a summary-level data. Effect size level data would be a raw meta-analytic dataset with each row containing an effect size and data on variables like outcome measure, methodology, comparison type etc. related to that effect size. Users can also upload summary-level data containing number of studies and/or average effect size aggregated for combination of factors. Once users upload their data, the app will prompt them to input variables necessary to create the plot. Furthermore, we provide an example dataset that can be used to learn more about the app and EGMs. The example dataset is from a meta-analysis conducted to examine interventions to decrease cyberbullying (Polanin et al., 2021).

If users input raw effect-size level data, users can select the model to calculate average effect size for a combination of factors. The users can select correlated and hierarchical effects model, correlated effects model, or hierarchical effects model (Pustejovsky & Tipton, 2021, Hedges et al., 2010). These models are difference models used to calculate robust standard errors to account for dependent effect sizes in meta-analyses. Note that the difference in these models will be in the estimated variance of the average effects. In the app, the users can also select the value for the within-study correlation between the effect sizes. The users can then click “Create Summary Data” button, which will prompt the app to run meta-regression to calculate average effect sizes per combination of factors as well as the number of studies and the number of effect sizes per combination of factors. If users selected example data, they will be prompted to select a model and the value for the correlation to create the summary data as well. If users input summary-level data, they do not need to specify any parameters and can click the “Create Summary Data” button to view the data that they have uploaded.

Users can then click on the Evidence Gap Map tab to view the EGM plot. Users have the option to overlay the plot with number of studies, average effect size, or nothing. Option to download the plot is available and user can type in the name of the image to be downloaded, and height and the width of the figure in inches.

Finally, the tab called R syntax provides reactive syntax corresponding to the data and variables inputted by the users, as well as any other selections they made.