

How Many Psychologists Use Questionable Research Practices? Estimating the Population Side of Current QRP Users

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Abstract

Here is where the abstract text goes. We are currently collaborating on Google Sheets on the final text. But when it is finished, the abstract part of it will go in this very spot! In the abstract, we'll reference our estimates. We estimate up to 24.4% of American psychologists have recently used at least one questionable research practice. The in line r code works! woo! Donec et sodales nunc. Nunc cursus ultricies purus, sit amet varius ante vestibulum eget. Pellentesque ornare feugiat neque. Aliquam auctor diam tempor diam consectetur rhoncus. Morbi malesuada sodales mi, eu pellentesque velit finibus vitae. Vivamus iaculis sapien id ante accumsan auctor. In ultrices rhoncus massa. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Integer porttitor dui eget massa vehicula pulvinar. Pellentesque id venenatis elit. Praesent condimentum quis nibh eget pretium. Pellentesque interdum risus velit, pulvinar viverra lorem vulputate vel. Vivamus vel tincidunt lorem. Duis pellentesque lacus velit, fermentum laoreet orci condimentum sit amet. Nulla fermentum, erat non rhoncus tincidunt, turpis tellus efficitur ante, ac convallis orci elit ac risus. Aliquam eget ultrices ex, ut lobortis augue.

How Many Psychologists Use Questionable Research Practices? Estimating the Population Side of Current QRP Users

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METHOD

The work detailed in this manuscript was preregistered on May 15th, 2017. The preregistration can be found at DOI 10.17605/OSF.IO/XU25N and www.osf.io/xu25n.

Sample

The frame population was tenured or tenure-track psychologists associated with a PhD-granting institution in the United States. The population contained 7101 individuals as of June 2017. All 7101 members of this population were contacted via email and asked to participate. Of the 7101 email invitations sent, 214 emails bounced (3.01%). We collected 613 full responses (8.63% full response rate), and 296 partial responses. Only full responses are used in the following estimations. Additionally, 26 participant responses were removed for either being marked complete erroneously or due to breaking estimate-specific criteria. There was no compensation offered for participation, and participants had 7 days to complete the survey after starting. 299 (48.78%) participants identified as female, and 279 (45.51%) identified as male, and 19 (3.1%) choosing not to identify their gender. 131 (21.37%) participants identified as an Assistant Professor, 141 (23%) as Associate Professor, and 208 (33.93%) as Full Professor. 113 participants identified as tenure or tenure-track, but did not disclose their tenure level.

Procedures

Data Sources

Data was collected using three surveys (as opposed to the two proposed in the preregistration), designed and distributed using Qualtrics survey software (CITATION). Each survey asked questions designed to estimate the total social network size of the participant, as well as demographic questions. Surveys 1 and 2 each contained questions appropriate for the UCT. Survey 3 contained our direct estimate measure and questions used to determine transmission of QRP-identity information within an individual’s social network.

All surveys included the definition of “Questionable Research Practices (QRPs)”. This definition included the list of behaviors previously defined in the literature as QRPs (see Table), but omitting “fabricating data” for reasons addressed earlier. The definition of QRP was made available on each relevant question with a mouse rollover that was first demonstrated with the initial definition.

Additionally, QRP use is temporally isolated to “in the past 12 months”. Although some have found instances of underreporting when using a 12 month recall (CITATIONS), this time frame is used frequently to measure current behavior in major national data collection surveys such as the National Health Interview Survey (NHIS) (CITATION) and the National Survey on Drug Use and Health (CITATION).

As data was collected between September 2017 and December 2017, questions framed using “in the past 12 months” constrains actual QRP use between September 2016 and December 2017, a time frame of 15 months. Therefore, estimates of current QRP use are based on the number of psychologists who have used at least one QRP in this time frame.

Measures

Direct Estimate

For comparison to the generalized network scale-up (GNSUM) and unmatched count technique (UCT) estimates, we estimated the number of QRP users by direct estimation. This involved asking members of the target population whether they have used at least one QRP in the past 12 months, and is calculated as follows:

$$\rho = \frac{c}{n} \tag{1}$$

where ρ is the proportion estimate of people who have used at least one QRP in the past 12 months, c is the number of participants indicating they have used a QRP in the past 12 months, and n is the total number of participant responses.