Better Understanding the Psychologists Who Use Questionable Research Practices
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INTRODUCTION
- The use of questionable research practices (QRPs) has been considered a significant pathway for false-positive findings to enter the scientific literature.
- There is no consensus on the prevalence of QRP use in psychology—the estimates of QRP use cover entire domains held more stigmatizing views of QRP users. Interestingly, younger psychologists have used a questionable research practices a sign of professional failure.

METHODS
- For QRP population sizing, three estimating techniques were used:
  - Direct Estimates: Psychologists were directly asked if they had used a QRP in the past 12 months. N = 338.
  - Unmatched Count: Participants were randomized into either a Control group or a Sensitive Item group. Participants were asked to count the number of items that applied to them (i.e., I am a vegetarian, I own a dog, etc.). The Sensitive Item condition contained one extra item—“I used at least one QRP in the past 12 months”. The mean difference between the two conditions equals the proportion estimate of participants who identified with this sensitive item. N = 327.
  - Generalized Network Scale: Participants were asked questions to estimate the size of their professional social network (how many psychologists they know). They were also asked one question to estimate how many psychologists they know who have used at least one QRP in the past 12 months. This proportion summed across all participants produces the first part of the network scale-up estimate. Simultaneously, self-report estimates of QRP use were asked about members of their professional social network. This information was used to determine the transmissibility of QRP use through the user’s social network and was used to adjust the network scale-up to produce the generalized network scale-up. N = 387.

RESULTS
- The Generalized Network Scale Up estimates 24.4% (10.0% - 58.7%) of American psychologists have used at least one QRP in the past year. This corresponds to 1,732 psychologists. The direct estimate was 18.4% (10.9% - 26.4%), which corresponds to 1,391 psychologists. The unmatched count estimate was 40.4%, which corresponds to 743 psychologists, but had a confidence interval that crossed zero.
- The estimated transmissibility of QRP use from a QRP user to a social network partner (from a QRP-using “ego” to an “alter” in their social network) was 58.7%. This means that the vast majority of psychologists do not know the identity of their peers who use questionable research practices. It is highly correlated identity. QRPs were also more likely to decline their identity to other QRPs users. The odds ratio of a QRP user knowing another QRP user was 95 times greater.

CONCLUSIONS
- Knowing the population size of psychologists who currently use questionable research practices is imperative for designing future interventions that aim to reduce the publication of false-positive findings in the academic literature.
- Understanding that QRPs are stigmatized by the general population is critical: It will be important when measuring their impact on published science in the future.

Approximately 18% - 24% of American psychologists have used a questionable research practice in the past year.

These individuals are stigmatized by their academic peers.