Abstract: Investigating the occurrence of reporting bias and publication bias in registered reports with the use of p-curves

This study investigated if registered reports are an effective way to counter p-hacking using the p-curve method. The p-curve is a distribution of statistically significant p-values of a meaningful set of independent findings which shape can estimate their joint evidential value. The findings have evidential value if selective reporting can be ruled out as the sole explanation to proposed effects. The first hypothesis predicted that the set of studies associated with registered reports has strong evidential value and the second hypothesis predicted that the set of studies associated with the control group has inconclusive evidential value. The results of the statistical tests confirmed the first hypothesis and rejected the second hypothesis as the right skew test was significant for both p-curves implying strong evidential value. Overall, there were no significant differences in evidential value between both set of studies and there was no indication of p-hacking in either group. These findings suggest that registered reports do not influence the likelihood of selective reporting being the sole explanation for the results. While this may be the case, further research is needed before concluding that registered reports are not an effective measure against p-hacking.