**Trends in P Value, Confidence Interval, and Power Analysis Reporting in Health Professions Education Research Reports: A Systematic Appraisal**

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**Abstract**

**Purpose**

To characterize reporting of P values, confidence intervals (CIs), and statistical power in health professions education research (HPER) through manual and computerized analysis of published research reports.

**Method**


**Results**

In the 2015 HPER sample, P values were reported in 69/100 abstracts and 94 main texts. CIs were reported in 6 abstracts and 22 main texts. Most P values (≥77%) were ≤.05. Across all years, 60/164 two-group HPER studies had ≥80% power to detect a between-group difference of 0.5 standard deviations. From 1985 to 2015, the proportion of HPER abstracts reporting a CI did not change significantly (odds ratio [OR] 2.87; 95% CI 1.04, 7.88) whereas that of main texts reporting a CI increased (OR 1.96; 95% CI 1.39, 2.78). Comparison with biomedical studies revealed similar reporting of P values, but more frequent use of CIs in biomedicine. Automated analysis of 56,440 HPER abstracts found 14,867 (26.3%) reporting a P value, 3,024 (5.4%) reporting a CI, and increased reporting of P values and CIs from 1970 to 2015.

**Conclusions**

P values are ubiquitous in HPER, CIs are rarely reported, and most studies are underpowered. Most reported P values would be considered statistically significant.