D.5. Evidence-based decisionmaking

Reporting guidelines - improving the evidence base of public health research

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Issue

Evidence based public health policy for health conditions relies on the synthesis of results from high quality research. Much has been done to improve the reporting of randomised controlled trials but little for research with other study designs that might have more relevance to public health. The Transparent Reporting of Evaluations and Non-randomised Designs reporting guideline (TREND; Des Jarlais et al., 2004) was developed to address this discrepancy. This study assesses the effectiveness of TREND by comparing reporting completeness between articles that use TREND and those that potentially could have used it, but did not.

Methods

Studies reporting use of TREND were retrieved (N = 47) and compared to a sample (N = 47) randomly selected from a pool of studies identified by a search in Medline, PsychINFO and Embase. Reporting completeness was assessed using: the TREND checklist; Graphical Appraisal Tool for Epidemiological studies (GATE); and Effective Public Health Practice Project Quality Assessment Tool (EPHPP-QA).

Results

Preliminary analyses indicated that mean reporting completeness as measured by the TREND checklist was greater for those studies reporting use of TREND than for comparators: 74.6% (SD 10.04; 95% CI 71.7, 77.6) compared to 65.0% (SD 10.01; 95% CI 62.1, 68.0). An ANCOVA found use of TREND (p = .002) to be associated with reporting completeness, but not year of publication (p = .084) or journal impact factor (p = .448). A significant interaction effect existed for use of TREND and year of publication (p = .002). However, when using the other indicators of reporting completeness from the EPHPP and GATE, no significant differences existed between the groups. Additional analyses revealed: a medium effect size (Cramer’s V = .37) for the use TREND and rating of study quality; mixed associations with TREND’s use on items that TREND was intended to improve reporting of; and factors that affect the use of reporting guidelines.
Lessons
It is not possible to determine whether use of the TRENDS statement improves reporting completeness as assessed using indicators of reporting completeness other than TRENDS. Revisions to TRENDS and clearer guidance on its use are likely to be required to yield improvements in reporting completeness.

Key messages
- Evidence based public health policy decisions depend on the accurate and complete reporting of health research.
- Mixed evidence exists for the positive effect of use of TRENDS on reporting completeness.