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International Journal of Eating Disorders: Statistical Guidelines

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Introduction

In 2008, at the annual meeting of the *International Journal of Eating Disorders* editorial board, a discussion was begun that launched an effort to improve and standardize statistical reporting in the *Journal*. A statistical guideline committee was formed to explore the problem and develop a solution. Our volunteer committee comprised editorial board members as well as outside statisticians who are regular contributors to the eating disorders field.

After reviewing the state of the *Journal*, and canvassing both authors and reviewers, and surveying approaches to standardization that have been taken by other journals, we developed the *2008 IJED Statistical Guidelines*. The resultant guidelines are designed to assist both authors and reviewers, to improve the standard of research presented in the *Journal*, and to provide a service to readers seeking consistency in reporting. Our first task was to develop formatting requirements for articles submitted to *IJED*. As requirements, authors are responsible for ensuring that their submitted manuscripts comply with the new *IJED* formatting rules. These requirements are consistent with current standards of statistical practice and will create consistency both within and across articles. Our second task was to develop statistical reporting guidelines. Although these are indeed guidelines and not requirements, authors should attend carefully to the guidelines and be aware that reviewers will be considering these principles when reviewing submissions to the *Journal*. For authors, attending to these guidelines in the design phase of any investigation will assist with ensuring a high quality scientific study. The topics that we chose to focus on include: one versus two tailed hypothesis testing, multiple comparisons, effect sizes, power analyses and sample size, pilot studies, misinterpretation of nonsignificant hypothesis tests, artificial categorization of variables, variable selection techniques, covariate adjustment, model validation, interactions, moderation and mediation, subgroup analyses, testing group differences at baseline, analysis of repeated measures, and missing data. In each instance, we supply a description of the issue and the rationale for the guideline, a succinctly stated guideline, and references to support the guideline.

The 2008 *IJED* statistical guidelines are detailed in a document linked to the Instruction to Authors page on the journal's web site, <http://www3.interscience.wiley.com/journal/34698/home/ForAuthors.html>. We view this as a continuously evolving document. Statistical

procedures are constantly evolving and so should our guidelines. We welcome comments on the 2008 guidelines and suggestions for further additions.

Source Materials for 2008 IJED Statistical Guidelines

Print Source Materials

Lang, T.A., Secic, M. (2006) How to Report Statistics in Medicine. American College of Physicians, Philadelphia

Publication of the American Psychological Association 5th Edition. American Psychological Association, Washington, DC.

Web Materials

American Journal of Human Genetics: http://images.cell.com/images/EdImages/ajhg/AJHG_Information_for_Authors.pdf

American Journal of Psychiatry: <http://ajp.psychiatryonline.org/misc/ifora.dtl>

CONSORT: <http://www.consort-statement.org/>

Equator Network: <http://www.equator-network.org/index.aspx?o=1015>

Journal of Clinical Psychiatry: <http://www.psychiatrist.com/documents/authors.asp#guidelines>

Journal of the American Medical Association: <http://jama.ama-assn.org/misc/ifora.dtl>

New England Journal of Medicine: <http://authors.nejm.org/Help/acHelp.asp>

Psychosomatic Medicine: <http://www.psychosomaticmedicine.org/misc/ifora.shtml>

PLOS Medicine: <http://journals.plos.org/plosmedicine/checklist.php>

STROBE: <http://www.strobe-statement.org/Checklist.html>