

# Journal of Pediatric Psychology Statement of Purpose—Section on Methodology

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Without good science, we can't do good deeds! In keeping with this notion, Robert Noll (2002) made the following introductory remarks for a special issue of *JPP* on "Methodology and Design": "With improvements in research methodology, we have more opportunities to influence public policy... Our scientific contributions facilitate our ability to improve the lives of children and families" (p. 1). Clearly, it is in our best interest to monitor and continually improve the quality of our research designs, methods of data collection, and statistical procedures.

It is safe to say that most methodological gains are driven by theoretical advances. For example, mediational and moderational statistical procedures were not employed until complex models (with multiple intervening causal pathways) were proposed (Holmbeck, 1997, 2002). Similarly, growth modeling statistical strategies were developed after investigators collected longitudinal data and proposed prospective "growth-oriented" hypotheses (Willett, Singer, & Martin, 1998). Thus, our knowledge and practice of research and statistical methods must continually be updated to keep pace with the increasing sophistication of our theoretical frameworks.

Rather than rely on occasional special issues focused on methodological topics (Holmbeck, Franks Bruno, & Jandasek, 2006; Noll, 2002), the new *JPP* editorial team believes that methodological issues are critical enough to warrant ongoing attention within this Journal's pages. Thus, the purpose of *JPP*'s new section on "Methodology" will be to highlight methodological advances in the field of pediatric psychology.

Can you introduce us to a new methodological, procedural, or statistical strategy? Do you know of a method that has been useful in another research area that has received little or no attention by researchers who

study pediatric populations? Are we doing something wrong? Can you help us do it right? If so, you may be able to make an important methodological contribution to this new section of the Journal. More generally, we seek to publish innovative papers focused on any of the following aspects of the research endeavor: the design of research studies, participant sampling methods, measurement and procedural issues, data reduction and data management techniques, data analytic strategies, issues pertaining to data interpretation, and training issues related to research methodology (including issues relevant to grant writing and publishing). We encourage authors to take risks in submitting these papers. Invited commentaries and author rebuttals will be employed to promote discussion of controversial methodological issues.

In the special issue on methodology of Noll (2002) in *JPP*, he included papers on three basic topics: design and methodological issues, novel approaches to research, and contemporary statistical issues. As illustrated in the sections below, we seek papers in areas similar to these: (a) papers that explore new methods or methods that are new to pediatric psychologists, (b) papers that examine new or existing constructs from a novel perspective and in a manner useful for pediatric psychologists, and (c) innovative applications of statistical strategies. In addition to papers that introduce innovative and creative methods to our readership, we also welcome papers that represent critiques of methods and strategies currently in use in the field of pediatric psychology. Finally, papers may be submitted that pose a methodological or statistical "question" that will be of general interest to researchers in the field of pediatric psychology. With respect to the latter, the editor will recruit suitable authors to provide answers to the questions posed.

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## New Approaches to Research Methodology

We seek papers that focus on methodological issues of interest to pediatric psychologists. Discussions of novel design or methodological strategies used elsewhere (e.g., focus groups; Heary & Hennessy, 2002) would be very appropriate for this new section. Given that sample sizes are typically quite small in studies of children with chronic conditions, we would like to publish a paper on measure development strategies that can be employed utilizing small sample sizes (e.g., if one cannot do a factor analysis, what is a useful substitute?). Papers similar to the one by Chambers and Johnston (2002) on developmental issues in child responses to rating scales, would also make important assessment-oriented contributions to the Journal. More generally, it would be of interest to know more about how to assess “development” in pediatric populations. Finally, papers on procedural issues would also be relevant, such as manuscripts that focus on: (a) recruitment strategies with pediatric populations, (b) methods to enhance the representativeness of our samples, (c) strategies for successfully recruiting fathers into studies of pediatric populations, (d) issues related to consent and assent, (e) methods of implementing sample screening and recruitment procedures since the advent of the Health Insurance Portability and Accountability Act (HIPAA), and (f) research designs that take into account the interface between pediatric psychology and cultural influences (Sue, Kurasaki, & Srinivasan, 1999).

## Examining New or Existing Constructs from a Novel Perspective

Existing constructs from other fields often take on new or altered meanings when applied to pediatric populations. A parenting variable (e.g., parental control) may be defined differently in studies of these populations or may have different implications for adjustment outcomes in pediatric samples than they do in typically developing children. Thus, it would be useful to publish papers that take a “new look” at existing constructs, as they may be theoretically or operationally defined in a pediatric context. It is also possible that some constructs have to be assessed differently in certain populations, due to limitations inherent in a particular sample. Discussions of such differences would be useful to researchers who use measures of these constructs. Finally, our new section on methodology could be used to introduce new constructs, relevant specifically to pediatric psychology, to provide

both theoretical and methodological advances for the field.

## Innovative Statistical Methods

Finally, we seek papers on creative applications of statistical methods for pediatric psychologists. Such papers will be maximally useful if they are written to be “readable” by the majority of *JPP* subscribers. Highly technical overviews with a high density of mathematical equations will be less appealing to this readership. Such papers are probably more appropriately submitted to *Psychological Methods*. Papers that introduce existing methods to our readership would be very useful (e.g., a paper on issues related to the use and calculation of *sensitivity* and *specificity* in diagnostic decision-making would be an advance for this journal). In addition, manuscripts that provide a straightforward explanation of statistical strategies that are not yet well understood by our readers would be valuable (DeLucia & Pitts, 2006). Finally, papers that focus on any of the following would be relevant: (a) the handling of missing values; (b) the use, computation, and relative merits of effect sizes and confidence intervals, versus null hypothesis significance testing techniques (a topic that is particularly relevant, given that it is now required that authors who seek to publish in *JPP* report such statistics in their manuscript); (c) issues related to clinical significance in the field of pediatric psychology; and (d) how to test mediational models with longitudinal data and small samples (Cole & Maxwell, 2003).

In closing, we are delighted to introduce this new section of *JPP* on methodology. Feel free to contact me to discuss potential paper topics or if you wish to “pose a question” that could be the focus of a series of papers and commentaries. More generally, with advances in research on pediatric populations, we will be better equipped to provide quality care and be able to inform future practice and policy. Because we seek to do good deeds, we need to improve our science to keep pace with our developing theories of children and families.

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## References

- Chambers, C. T., & Johnston, C. (2002). Developmental differences in children's use of ratings scales. *Journal of Pediatric Psychology, 27*, 27–36.
- Cole, D. A., & Maxwell, S. E. (2003). Testing mediational models with longitudinal data: Questions and tips in the use of structural equation modeling. *Journal of Abnormal Psychology, 112*, 558–577.
- DeLucia, C., & Pitts, S. C. (2006). Applications of individual growth curve modeling for pediatric psychology research. *Journal of Pediatric Psychology, 31*, 1002–1123.
- Heary, C. M., & Hennessy, E. (2002). The use of focus group interviews in pediatric health care research. *Journal of Pediatric Psychology, 27*, 47–57.
- Holmbeck, G. N. (1997). Toward terminological, conceptual, and statistical clarity in the study of mediators and moderators: Examples from the child-clinical and pediatric psychology literatures. *Journal of Consulting and Clinical Psychology, 65*, 599–610.
- Holmbeck, G. N. (2002). Post-hoc probing of significant moderational and mediational effects in studies of pediatric populations. *Journal of Pediatric Psychology, 27*, 87–96.
- Holmbeck, G. N., Bruno, E. F., & Jandasek, B. (2006). Longitudinal research in pediatric psychology: An introduction to the special issue. *Journal of Pediatric Psychology, 31*, 995–1001.
- Noll, R. B. (2002). How to build a better mousetrap: Introduction to the special issue on methodology and design. *Journal of Pediatric Psychology, 27*, 1–3.
- Sue, S., Kuraski, K. S., & Srinivasan, S. (1999). Ethnicity, gender, and cross-cultural issues in clinical research. In P. C. Kendall, J. N. Butcher, & G. N. Holmbeck (Eds.), *Handbook of research methods in clinical psychology* (2nd ed., pp. 54–71). New York: Wiley.
- Willett, J. B., Singer, J. D., & Martin, N. C. (1998). The design and analysis of longitudinal studies of development and psychopathology in context: Statistical models and methodological recommendations. *Development & Psychopathology, 10*, 395–426.