

Marquette University  
**e-Publications@Marquette**

---

Psychology Faculty Research and Publications

Psychology, Department of

---

1-1-2017

# Introduction to The Special Issue: Advances in Methods and Measurement in Family Psychology

Barbara H. Fiese

*University of Illinois at Urbana-Champaign*

Brian Doss

*University of Miami*

Galena K. Rhoades

*University of Denver*

Arin Connell

*Case Western Reserve University*

Astrida S. Kaugars

*Marquette University, [astrida.kaugars@marquette.edu](mailto:astrida.kaugars@marquette.edu)*

*See next page for additional authors*

---

Accepted version. *Journal of Family Psychology*, Vol. 31, No. 8 (2017): 969-971. [DOI](#). © 2017  
American Psychological Association. Used with permission.

---

**Authors**

Barbara H. Fiese, Brian Doss, Galena K. Rhoades, Arin Connell, Astrida S. Kaugars, and Christopher J. Trentacosta

Marquette University

**e-Publications@Marquette**

***Psychology Faculty Research and Publications/College of Arts and Sciences***

***This paper is NOT THE PUBLISHED VERSION; but the author's final, peer-reviewed manuscript.*** The published version may be accessed by following the link in the citation below.

*Journal of Family Psychology*, Vol. 31, No. 8 (December 2017): 969-971. [DOI](#). This article is © American Psychological Association and permission has been granted for this version to appear in [e-Publications@Marquette](#). American Psychological Association does not grant permission for this article to be further copied/distributed or hosted elsewhere without the express permission from American Psychological Association.

# Introduction to the Special Issue: Advances in Methods and Measurement in Family Psychology

**Barbara H. Fiese**

University of Illinois at Urbana-Champaign;

**Arin Connell**

Case Western Reserve University

**Brian Doss**

University of Miami

**Astrida Seja Kaugars**

Marquette University

**Galena K. Rhoades**

University of Denver

**Christopher J. Trentacosta**

Wayne State University

## Acknowledgement:

Family psychology is built upon principles of systems theory: a system is greater than the sum of its parts, has properties that cannot be gleaned just from an examination of its separate parts, and is organized hierarchically (von Bertalanfy, 1969). Systems are also characterized by openness and dynamic responses to information as well as positive and negative feedback loops (Cox & Paley, 1997). These guiding principles have led researchers to focus on, for example, dyadic and dynamic aspects of family communication through direct observation (e.g., Sanford, 2012), and the application of sophisticated analytic approaches that permit a focus on patterns of mutual influence across family members (such as Actor Partner Interdependence Models (APIM)) that can be applied to topics ranging from the prediction of engagement in therapy (e.g., Biesen & Doss, 2013) to the examination of adolescent response to family conflict (e.g., Zhou & Buehler, 2017).

Particularly relevant to the field of family psychology is how relationships change over time. Family scientists are concerned with how development unfolds and how earlier patterns of behavior predict later behavior. This aspect of family psychology emphasizes the importance of transition points such as the transition from cohabitation to marriage, transition to parenthood, and adjustment after divorce. The methods used to study these transitions are necessarily longitudinal and require attention to developmentally appropriate measures across time, how to handle missing data, and the appropriate use of covariates over time, and developmentally appropriate measures across time.

Studying context is also inherent to family psychology. Much of the research in the field attempts to shed light on how culture, socioeconomic status, gender, and sexual identity affect and are affected by family relationships. Certainly these concerns are not unique to the field of family psychology. However, it would be rare for the editorial team of the *Journal of Family Psychology* not to consider the contextual context of a report published in the journal. Additionally, family researchers increasingly incorporate genetic and neurobiological measures into their work, to foster deeper understanding of how factors may shape and be shaped by family functioning and broader contextual factors.

In this special issue, we present a collection of reports that highlight recent advances in methods and measurement, which also sheds light on the complexity of family psychology. The importance of theory in guiding solid family science is evident throughout these reports. Without a clear conceptual foundation, it is not possible to advance the field. No matter how sophisticated the analytic approach, it is essential that a strong theoretical framework guide all research questions in family psychology. With increasing availability of large data sets and shrinking research dollars, it becomes incumbent upon family scientists to be clear, concise and theory driven in their research. We believe that the articles in this special issue are representative of such work.

The first two articles serve as guides for family researchers focusing on observational methods and advances in technological methods for use in delivering family interventions. Baucom and colleagues (this issue) elegantly lay out how behavioral observations are an essential means to test and refine theory in family psychology. They propose the use of naïve coding and Behavioral Signal Processing (BSP) to facilitate this process. Drawing from different theoretical orientations, these innovative approaches allow family researchers to advance theory through the systematic use of direct

observation. In addition to increasing efficiency in coding complex interactions, these methods may open up new avenues of theory development relevant to the cultural context of family relationships.

Doss and colleagues (this issue) provides a guide for researchers entering the ever-expanding field of telehealth and Internet interventions. They provide a concise and up-to-date review of how telehealth and Internet interventions may be applied to empirically based family interventions. These electronic means of delivery have the potential to reduce costs and increase reach to rural and low-income communities. However, as Doss and colleagues point out, there is still considerable work that needs to be done to realize these goals.

The next three articles provide sophisticated analytic approaches that advance systemic thinking in family psychology. Brinberg and colleagues (this issue) present an approach for examining inter- and intra- family dynamics using grid sequence analysis. This approach melds state space grids methods from the dynamic systems literature (Hollenstein, 2013) with sequence analysis, a technique originally used by biologists to Group DNA sequences, to identify patterns of interactions and typologies that can advance theory. For example, Brinberg and colleagues were able to identify different patterns of engagement between parents and adolescents that could be applied to tailored interventions. Schofield and colleagues (this issue) address intergenerational continuity in attitudes using a latent fixed-effects model. This technique offers one way to control for measurement error and advance the field's approach to integrating responses from multiple members of the same family.

Family researchers also consider how relationships change over time. Isiordia and colleagues (this issue) apply the Factor of Curves (FOCUS) model that was first presented by McArdle (1988) almost 30 years ago for modeling multiple developmental constructs across time. Although this approach offers important advantages relative to traditional growth modeling, it has not been widely adopted by family researchers. The application by Isiordia and colleagues demonstrates that the FOCUS model continues to be a promising approach when a higher-order common factor could account for developmental interrelations among lower-order constructs.

The final set of articles in the issue provide additional evidence of how advances in research methods and measurement in family psychology are applied to important societal issues. The issue of work experiences and marital relationships in African American couples is addressed by Sun and colleagues (this issue). Although readers of this journal will be familiar with the Actor-Partner Interdependence Model approach (Kenny, Kashy, & Cook, 2006) the inclusion of longitudinal data allows for a strong test of spill-over effects. Brock and colleagues (this issue) provide a sophisticated approach to creating a biobehavioral plasticity index, which involves the combination of parental report of temperament, genetic risk factors, and lab based measures of child negative emotionality. This approach has the potential to expand theoretical understandings of how genetics contribute to family interactions and vice versa. Jensen (this issue) and Dyer et al. (this issue) both advance the field by attending to unique methodological issues that are particularly germane to the diverse nature of stepfamilies and nonresident fathers. Recognizing that the structure of step-families and connections with nonresident fathers is a valuable topic of investigation furthers our understanding of the complexity of contemporary families. Kuhn (this issue) presents a compelling case for utilizing experimental paradigms such as exposing half of the dyads to a social stressor to better understand couple coping

mechanisms and response to stress. We hope that other family researchers will consider adopting these kinds of experimental approaches.

Without strong theory there cannot be strong science, and without strong methods to test scientifically grounded theories the field cannot continue to flourish. We hope that readers of this special issue will return to these reports as resources and examples of theory-driven methods and measurements. Greater attention to the social and economic contexts in which contemporary families live must be a part of advances in the field. We are encouraged by the sophistication and contextual framework of these reports and look forward to publishing many more reports in the *Journal of Family Psychology* that use sophisticated and cutting-edge methodology to evaluate conceptually sound and theory-driven hypotheses.

## References

- Biesen, J. N., & Doss, B. D. (2013). Couples' agreement on presenting problems predicts engagement and outcomes in problem-focused couple therapy. *Journal of Family Psychology*, 27, 658–663. 10.1037/a0033422
- Cox, M. J., & Paley, B. (1997). Families as systems. *Annual Review of Psychology*, 48, 243–267. 10.1146/annurev.psych.48.1.243
- Hollenstein, T. (2013). *State Space Grids: Depicting Dynamics Across Development*. New York, NY: Springer. 10.1007/978-1-4614-5007-8
- Kenny, D. A., Kashy, D. A., & Cook, W. L. *Dyadic Data Analysis*. New York, NY: Guilford Press.
- McArdle, J. J. (1988). Dynamic but structural modeling of repeated measures data. In J. R. Nesselroade & R. B. Cattell (Eds.), *The Handbook of Multivariate Psychology*. New York, NY: Springer. 10.1007/978-1-4613-0893-5\_17
- Sanford, K. (2012). The communication of emotion during conflict in married couples. *Journal of Family Psychology*, 26, 297–307. 10.1037/a0028139
- von Bertalanffy, L. (1969). General Systems Theory and psychiatry: An overview. In W. Gray, F. J. Duhl, & N. D. Rizzo (Eds.), *General Systems Theory and Psychiatry* (pp. 33–50). Boston, MA: Little, Brown and Company.
- Zhou, N., & Buehler, C. (2017). Adolescents' responses to marital conflict: The role of cooperative marital conflict. *Journal of Family Psychology*, 31, 910–921. 10.1037/fam0000341  
*Submitted: December 5, 2017 Accepted: December 5, 2017*

This publication is protected by US and international copyright laws and its content may not be copied without the copyright holders express written permission except for the print or download capabilities of the retrieval software used for access. This content is intended solely for the use of the individual user.

**Source:** Journal of Family Psychology. Vol. 31. (8), Dec, 2017 pp. 969-971)

**Accession Number:** 2018-00265-001

**Digital Object Identifier:** 10.1037/fam0000410