

**SOCIETY FOR PREVENTION RESEARCH  
23<sup>RD</sup> ANNUAL MEETING  
WASHINGTON, DC**

**Pre-Conference Workshop IV**

**Date: Tuesday, May 26, 2015**

**Time: 8:30 am – 5:00 pm**

**Modern Mediation Analysis**

**Presenters:** David P. MacKinnon, Ph.D., Foundation Professor, Department of Psychology Arizona State University and Yasemin Kisbu-Sakarya, Ph.D., Assistant Professor, Department of Psychology, Koç University, Istanbul, Turkey

**Description**

The goal of the workshop is to describe statistical, methodological, and conceptual aspects of mediation analysis. The one-day workshop consists of four parts. Part 1, covers definitions, history, and applications for the mediation model. The purpose of this section is to provide an overview of the research questions the mediation model can answer. Examples from mediation analysis in prevention and treatment research are described. In Part II, the conceptual model described in Part I is quantified in the estimation of mediation in single and multiple mediator models. Estimation of mediation effects including assumptions, statistical tests, confidence intervals, and effect size are covered. The methods described in this section serve as the foundation for more advanced methods in Part III consisting of mediation in path analysis, longitudinal mediation models, and mediation in the context of moderation. In Part IV, general practical and theoretical issues in the investigation of mediation are discussed including methods to adjust for confounders, causal inference, additional approaches to identifying mediating variables, and future directions.

**Target workshop audience**

The target audience is prevention and treatment researchers with some knowledge of statistical analysis including multiple regression.

**Materials provided to attendees.**

The audience will receive access to workshop slides and handouts. Materials will be made available either on a website or in printed form.

**Workshop Outline**

Dr. MacKinnon will lead the workshop and Dr. Kisbu-Sakarya will lead specific sections.

Morning

8:30-9:00

Computer Set up

9:00-10:15am	Introduction, workshop goals, definitions, history, examples (Chapter 1 and 2)
10:15-10:45am	Single Mediator Model (Chapter3)
10:45-11:00am	Break
11:00-Noon	Single Mediator Model Continued (Chapter 3 and 4) Methods to test mediation, effect size, power
Noon-1:00pm	Lunch on your own
1:00-2:00pm	Single Mediator Model Continued and Multiple Mediator Models (Chapters 3, 4, and 5) SPSS, SAS, and Mplus Examples, Inconsistent Mediation
2:00-2:45pm	Special Topic: Moderation and Mediation (Chapter 10)
2:45-3:00pm	Break
3:00-3:45pm	Special Topic: Path Analysis Mediation Models
3:45-4:30	Special Topic: Longitudinal Mediation Models
4:30-5:00pm Directions for	Special Topics: Issues in Study Design, Bayesian Methods, Future Mediation in Prevention research.
5:00-5:15pm	Summary and Sources of Information
5:15-6:15pm	Available to Answer Questions

David P. MacKinnon, Ph.D., is a Foundation Professor in the Department of Psychology at Arizona State University. He received the Ph.D. in measurement and psychometrics from UCLA in 1986. He was an Assistant Professor of Research at the University of Southern California's Institute for Prevention Research from 1986 to 1990. He has been at Arizona State University since 1990 and is affiliated with the Prevention Intervention Research Center and the Research in Prevention Laboratory. Dr. MacKinnon teaches graduate analysis of variance, mediation analysis, and statistical methods in prevention research. He has given numerous workshops in the United States and Europe. In 2011 he received the Nan Tobler Award from the Society for Prevention Research for his book on statistical mediation analysis. He has served on federal review committees and was a consulting editor for the journal, *Prevention Science*. Dr. MacKinnon has been principal investigator on several National Institute on Health grants and is a Fellow of the Association for Psychological Science and American Psychological Association Measurement and Statistics Division. His primary interest is in the area of statistical methods to assess how prevention and treatment programs achieve their effects. He has given over 40 workshops on mediation analysis over 100 invited lectures on mediation analysis.

Yasemin Kisbu-Sakarya is an Assistant Professor in the Department of Psychology at Koç University in Istanbul, Turkey. She recently received her Ph.D. in quantitative psychology from

Arizona State University. She then completed her post-doc at the quantitative methodology division of the Institute for Policy Research at Northwestern University. During her doctoral studies, she extensively worked on statistical mediation analysis under the supervision of Dr. MacKinnon. Her dissertation research focused on causal mediation analysis in the presence of confounding variables. As part of the Research in Prevention Laboratory, she worked as a methodologist for several nationwide health promotion intervention programs. She currently teaches the graduate quantitative methods curriculum at Koç University, one of the top research universities in Turkey. Her current research focuses on causal inference methodology, statistical mediation analysis, longitudinal models, and application of quantitative methods to social sciences with an emphasis on program evaluation. She has several journal articles and book chapters developing and applying mediation methods.