

# Yasemin Kisbu-Sakarya

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## Experience

- 2016 – Present **Independent Evaluation Laboratory (IEL), Koç University, Istanbul Turkey**  
Director  
[www.evalresearchlab.com](http://www.evalresearchlab.com)
- 2014 – Present **Koç University, Istanbul Turkey**  
Assistant Professor, Department of Psychology  
(Received Associate Professorship from the Turkish Council of Higher Education, 2018)  
Academic Co-director & Executive Board Member, Koç University Social Impact Forum
- 2018 Summer **Harvard University, USA**  
Visiting Scholar
- 2013 – 2014 **Northwestern University, Institute for Policy Research, USA**  
Quantitative Methodology Center (Supervisor: Prof. Thomas D. Cook)  
Post-doctoral Fellow in Impact Evaluation and Quasi-Experimental Methods
- 2009 – 2013 **Arizona State University, Research in Prevention Laboratory, USA**  
Graduate Research Associate in Advanced Quantitative Analysis and Evaluation

## Education

- 2009 – 2013 **Ph.D. in Quantitative Research Methods**  
Department of Quantitative Psychology, Arizona State University, USA  
Committee: David P. MacKinnon (Chair), Leona Aiken, Stephen West, Roger Millsap  
*Dissertation title:* Estimating causal direct and indirect treatment effects in the presence of post-treatment confounders
- 2004 – 2006 **M.A. in Developmental Psychology**  
Koç University, Istanbul, Turkey
- 2001 – 2004 **B.A in Economics,**  
Koç University, Istanbul, Turkey

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<sup>1</sup> 1st among Turkish Universities according to Times Higher Education World University Rankings.

## Research Interests

- Advanced quantitative research methods and experimental & quasi-experimental design.
- Large scale data analysis to inform policy and interventions.
- Evaluation and impact maximization of interventions and policies.
- Transportability and adaptability studies to bring effective interventions to countries different from where they originated.

## Publications

### Journal Articles and Book Chapters:

1. **Kisbu-Sakarya, Y.**, Cook, T.D., Tang, Y., Clark, T. (in press). Comparative Regression Discontinuity: A Stress Test with Small Samples. *Evaluation Review*.
2. Tang, Y., Cook, T.D., & **Kisbu-Sakarya, Y.** (in press). Statistical Power for the Comparative Regression Discontinuity Design with a non-Equivalent Comparison Group. *Psychological Methods*.
3. Tang Y., Cook, T.D. & **Kisbu-Sakarya, Y.**, Hock, H., & Chiang, H. (in press). The Comparative Regression Discontinuity (CRD) Design: An overview and demonstration of its performance relative to basic RD and the randomized experiment. In M.D. Cattaneo & J.C. Escanciano (Eds.), *Advances in Econometrics: Regression Discontinuity Designs: Theory and Applications*. Emerald Publishing Limited.
4. Olivera, M., Rikoon, S., Gonzalez, O., **Kisbu-Sakarya, Y.** & MacKinnon, D.P. (in press). Bias, type I error rates and statistical power of a latent mediation model in the presence of violations of invariance. *Educational and Psychological Measurement*.
5. Kağıtçıbaşı, C., **Kisbu-Sakarya, Y.**, & Aydoğdu, E\*. (in press). Intercultural engagement and relatedness: Examining mediation effects. *International Journal of Intercultural Relations*.
6. **Kisbu-Sakarya, Y.**, MacKinnon, D.P. & O'Rourke, H. (2015). Strategies for drug program evaluation: Statistical models of mediation for drug program evaluation. In L. M. Scheier (Ed.), *Handbook of drug abuse prevention research, intervention strategies, and practice*. Washington, DC: American Psychological Association.
7. Miller, J. D., Maples, J. L., Buffardi, L., Cai, H., Gentile, B., **Kisbu-Sakarya, Y.**, Kwan, V.S.Y., LoPilato, A., Pendry, L. F., Sedikides, C., Siedor, L., & Campbell, W. K. (in press). Narcissism and United States' Culture: The view from home and around the world. *Journal of Personality and Social Psychology*.
8. **Kisbu-Sakarya, Y.**, MacKinnon, D. P., & Miočević, M. (2014). The Distribution of the Product Explains Normal Theory Mediation Confidence Interval Estimation. *Multivariate Behavioral Research*, 49, 261-268.
9. **Kisbu-Sakarya, Y.**, MacKinnon, D.P., & Aiken, L.S. (2013). A Monte Carlo comparison study of the power of the analysis of covariance, simple difference, and residual change scores in testing two-wave data. *Educational and Psychological Measurement*, 73, 47-62.

10. Cox, M. G., **Kisbu-Sakarya**, Y., Miočević, M., & MacKinnon, D. P. (2013). Sensitivity Plots for Confounder Bias in the Single Mediator Model. *Evaluation Review*, 37, 1-27.
11. Ames, S. L., **Kisbu-Sakarya**, Y., Reynolds, K.D., Boyle, S., Cappelli, C., Cox, M.G., Dust, M., Grenard, J.L., MacKinnon, D.P. & Stacy, A.W. (2014). Inhibitory control effects in adolescent binge eating and consumption of sweetened beverages and snacks. *Appetite*, 81, 180-192.
12. MacKinnon, D.P., **Kisbu-Sakarya**, Y., & Gottschall, A. (2013). Developments in mediation analysis. In T.D. Little (Ed.), *Oxford Handbook of Quantitative Methods*. New York: Oxford University Press.
13. Kuehl, K. S., **Kisbu-Sakarya**, Y., Elliot, D. L., Moe, E. L., DeFrancesco, C. A., MacKinnon, D. P., ... & Kuehl, H. E. (2012). Body Mass Index is a Predictor of Fire Fighter Injury and Worker Compensation Claims. *Journal of Occupational and Environmental Medicine*, 54, 579.
14. Pirlott, A. G., **Kisbu-Sakarya**, Y., DeFrancesco, C. A. , Elliot, D. L., & MacKinnon, D.P. (2012). Mechanisms of motivational interviewing in health promotion: A Bayesian mediation analysis. *International Journal of Behavioral Nutrition and Physical Activity*, 9, 1-11.
15. Elliot, D.L., MacKinnon, D.P., Mabry, L., **Kisbu-Sakarya**, Y., DeFrancesco, C.A., Coxe, S.J., Kuehl, K.S., Moe, E.L., Goldberg, L., & Favorite, K.C. (2012). Worksite wellness program implementation: A model of Translational Effectiveness. *Translational Behavioral Medicine*, 1-8.
16. Grenard, J. L., Stacy, A. W., Shiffman, S., Baraldi, A. N., MacKinnon, D. P., Lockhart, G., **Kisbu-Sakarya**, Y., ... & Reynolds, K. D. (2013). Sweetened drink and snacking cues in adolescents. A study using ecological momentary assessment. *Appetite*, 67, 61-73.

Manuscripts under review / in progress (\*sign denotes a graduate student):

17. **Kisbu-Sakarya**, Y. & MacKinnon, D.P. (under review). Causal Mediation Analysis: Theory and Methods.
18. Niehues W.\*, **Kisbu-Sakarya** Y., & Selcuk B. (under review). Student Body and School Characteristics Associated with Secondary School Track Attendance in Turkey.
19. **Kisbu-Sakarya**, Y. et al. (in preparation) Protective and risk factors for positive fathering: Implications for social intervention and policy.
20. **Kisbu-Sakarya**, Y. et al. (in preparation) Effectiveness of a large-scale teacher training program for children with autism.
21. Sümer, Ö.\*, Selcuk B., & **Kisbu-Sakarya**, Y. (in preparation) Rearing environment matters: How developmental change differs between institution-reared and parent-reared children.
22. Niehues W.\*, **Kisbu-Sakarya** Y., & Selcuk B. (under review). Motivation and Math Achievement in Turkish Students: Are They Linked with Socio-Economic Status?
23. Çetinkaya, E.\* & **Kisbu-Sakarya**, Y. (in preparation) Effectiveness of a social-psychological intervention to reduce stereotype threat in STEM fields.

24. Uslu, D.\* & **Kisbu-Sakarya, Y.** (in preparation) Towards optimized effectiveness of organizational training programs: A meta-analysis.
25. Uslu, D.\* & **Kisbu-Sakarya, Y.** (in preparation) A brief intervention to reduce gender gap in leadership.
26. Zayim, S.\*, **Kisbu-Sakarya, Y.**, Göksun, T. (in preparation). Effect of a 10-Weeks Learn to Code Intervention on Cognitive Outcomes of Disadvantaged Children: A Randomized Trial.
27. Aydin, E.\* & **Kisbu-Sakarya, Y.** (in preparation) The effect of psychological detachment from work on employee well-being.

## Selected Applied Experience

### **Research in Prevention Laboratory (RiPL), Arizona State University, (2009-2013)**

Graduate research assistant for Prof. David P. MacKinnon

- **Habitual and Neurocognitive Processes in Adolescent Obesity Prevention.** *Funded by NIH.* Data analyst and methodologist for a multiple-studies project that included computer intensive assessment methods to develop an evidence-based obesity prevention program. Provided technical input into sampling, indicator and questionnaire development, quantitative data analysis, and report writing. Analysis topics included multilevel power analysis to determine sample size, psychometric analysis of questionnaires, latent profile analysis, and multi-group structural equation modelling.
- **Promoting Healthy Living: Assessing More Effects (PHLAME).** *Funded by NIH.* Data analyst and methodologist for seven-wave longitudinal data on the evaluation of a health promotion program in US. Provided technical input into literature review, theoretical model building, quantitative data analysis, and report writing. Analysis topics include multilevel analysis, missing data analysis with categorical outcomes, Bayesian mediation analysis, and longitudinal models, and quantitative analysis of a data coming from a qualitative sub-study. The project involved team working and collaboration in a multi-cultural environment with researchers from diverse disciplines and research centers.

### **Institute for Policy Research, Northwestern University, (2013-2014)**

Post-doc researcher under the supervision of Prof. Thomas D. Cook. *Funded by IES.*

- Conducted research on the development and testing of a new quasi-experimental technique: Comparative Regression Discontinuity Design. Applied the new analysis methods to large-scale national datasets such as the US National Head Start Impact Study promoting child development and US Comprehensive Teacher Induction Study promoting student achievement.

### **Education Volunteers Foundation of Turkey (TEGV), Istanbul Turkey, (2015-2017)**

- Principal academic consultant and supervisor for the longitudinal impact evaluation of TEGV after-school programs given to disadvantaged children in 20 cities across Turkey. Determined the targeted indicators and supervised the planning, design, and implementation of the evaluation. Provided significant technical input into survey development and sampling strategy. Conducted a propensity score matching analysis segregated by gender and has written the final report.

### **Mother-Child Education Foundation (AÇEV), Istanbul Turkey, (2015-2016)**

- Principal methodological investigator for a comprehensive project on the State of Fatherhood in Turkey (*Funded by Bernard van Leer Foundation*). The project had a mixed design involving

qualitative and quantitative methods and gathered disaggregated data from a nationally representative sample of fathers in Turkey. Provided significant input into the development of a theoretical model identifying risk and protective factors for positive fathering, development of the survey including information about the household and appropriate parenting scales, sampling strategy, psychometric analysis of scales, and data analysis.

**TOHUM Autism Foundation** (Social Impact of TANAP Energy - Trans Anatolian Natural Gas Pipeline Project) (2017 - Present)

- Independent evaluator for the Autism Training Project conducted across 11 cities located at the TANAP pipeline in Turkey. Determined evaluation hypotheses, the targeted outcome indicators, conducted literature review, prepared the questionnaires, and supervised the full planning, designing, and implementation of the evaluation.

**Koç University Social Impact Forum (KUSIF)**, Istanbul Turkey, (2014-present)

- Consultant to KUSIF on several projects on advocacy and capacity building for social impact evaluation in Turkey. Example of a completed project is “Improving social impact of Turkish women's NGOs: Developing a shared measurement approach” (*funded by the MATRA program of the Consulate of Netherlands*).

**Jacobs Foundation Marbach Residency Fellowship** (August, 2015). Project title “Towards optimised reach and effectiveness of parenting interventions to prevent violence against children” in collaboration with Prof. Frances Gardner from Centre for Evidence based Intervention, Oxford University.

- Consultancy on implementing integrative data analysis with indirect effects. The project involved analyzing the effectiveness of an evidence-based parenting intervention by aggregating data coming from 14 randomized trials conducted across Europe.

**Independent Evaluation Laboratory**, Koç University, Istanbul Turkey, (2016-present)

- Director of projects on developing quantitative analysis methods, analyzing large-scale datasets to inform evidence-based policy making, and testing intervention effectiveness by answering key questions about for whom, how, and why they work.

### Selected Conference Presentations

1. **Kisbu-Sakarya, Y., Cook, T.D. & Yang, T.** (July, 2016). Comparative Regression Discontinuity: Results of a Within Study Comparison. Paper presented at the VII European Congress of Methodology, Spain.
2. **Kisbu-Sakarya, Y.** (June, 2015). *Advancing Quasi-Experimental Methods: Comparative Regression Discontinuity Design*. Paper symposium organized for the Annual Meeting of Society for Prevention Research, Washington DC.
3. **Kisbu-Sakarya, Y.** (June, 2015). *Advances in Mediation Analysis: Improving Causal Interpretation and Accuracy of Estimates*. Paper symposium organized for the Annual Meeting of Society for Prevention Research, Washington DC.
4. **Kisbu-Sakarya, Y., Cook, T.D. & Yang, T.** (June, 2015). Comparative Regression Discontinuity: Mitigating the Limitations of Regression Continuity Design. Paper presented at the Annual Meeting of Society of Prevention Research, Washington DC.

5. **Kisbu-Sakarya, Y., & MacKinnon, D.,** (June, 2015). Estimating causal mediated effects in the presence of post-treatment confounders. Paper presented at the Annual Meeting of Society of Prevention Research, Washington DC.
6. Yang, T., Cook, T.D., & **Kisbu-Sakarya, Y.** (June, 2015). Reducing Bias and Increasing Precision by Adding Either a Pretest Measure of the Study Outcome or a Nonequivalent Comparison Group to the Basic Regression Discontinuity Design. Paper presented at the Annual Meeting of Society of Prevention Research, Washington DC.
7. Olivera-Aguilar, M., **Kisbu-Sakarya, Y., & MacKinnon, D.,** (June, 2015). Violations of invariance in a mediation model: Impact on relative bias, type I error rates, statistical power and coverage. Paper presented at the Annual Meeting of Society of Prevention Research, Washington DC.
8. **Kisbu-Sakarya, Y., O'Rourke, H., & MacKinnon, D.,** (June, 2012). Causal inference in Bayesian mediation analysis: Implications of prior information use. Poster presented at the Annual Meeting of Society of Prevention Research, Washington DC.
9. **Kisbu-Sakarya, Y., MacKinnon, D., & Tofighi, D.** (June, 2011). Bayesian mediation analysis for studies with small samples. Poster presented at the Annual Meeting of Society of Prevention Research, Denver, Co.
10. Cox, M. G., **Kisbu-Sakarya, Y., & MacKinnon, D.,** (June, 2012). Distillation of the mediated effect: Estimating bias in latent variable mediation models. Poster presented at the Annual Meeting of Society of Prevention Research, Washington DC.
11. MacKinnon, D.P., Cox, M.G., Miocevic, M., & **Kisbu-Sakarya, Y.** (March, 2012). Methods to assess confounder bias applied to an anabolic steroid prevention program. Paper presented at the Frontiers in the Analysis of Causal Mechanisms Conference, Harvard's Institute for Quantitative Social Sciences, Cambridge, MA.
12. MacKinnon, D.P., **Kisbu-Sakarya, Y., & Lockhart, G.** (October, 2011). Moments of the Distribution of the Product of Two Standard Normal Variates. Paper presented at the Annual Meeting of society of Multivariate Experimental Psychology, OK.
13. **Kisbu-Sakarya, Y., MacKinnon, D., & Elliot, D.** (2010, June). Cross-Sectional versus Longitudinal Analyses: Discrepant Findings from Prevention Research Data. Poster presented at the Annual Meeting of Society of Prevention Research, Denver, Co.
14. **Kisbu-Sakarya, Y., Pirlott, A., DeFrancesco, C., Eash, M., MacKinnon, D., Elliott D.L.** (June, 2011). Mediation mechanisms of motivational interviewing in occupational health promotion. Poster presented at the Annual Meeting of American College of Sports Medicine, Denver, Co.

## Teaching Experience

**Koç University, Istanbul Turkey (Fall 2014 – present)**  
 PSYC 501 Research Methods I (Graduate Level)  
 PSYC 502 Research Methods II (Graduate Level)  
 PSYC 556 Structural Equation Modeling (Graduate Level)  
 PSYC 301 Research Methods

PSYC 201 Scientific Methods in Behavioral and Social Sciences

**Arizona State University (Fall 2010, Spring 2012)**

Psychometrics (Graduate level). Graduate teaching assistant for Prof. Roger Millsap.

Statistical Mediation Analysis (Graduate level). Graduate teaching assistant for Prof. David MacKinnon.

Professional service, honors, awards

- **2017 Young Scientist Award** given by Science Academy in Turkey.
- Scientific Board Member, *Turkish Educational Volunteers Foundation (TEGV)*
- Invited forum introduction and moderation (May, 2015). *Harvard-TEGV International Forum on Measurement and Evaluation in Non-Profit Organizations*, organized by TEGV and Harvard Kennedy School.
- Invited pre-conference workshop on *Modern Mediation Analysis* (June, 2015). Annual Meeting of Society for Prevention Research, Washington DC, with David P. MacKinnon.
- The Scientific and Technological Research Council of Turkey (TUBITAK) “H2020 above the threshold award” (2015)
- Research Excellence Award, Arizona State University, Graduate Studies Committee (2009)

Affiliations

European Association of Methodology

APA Division 5 - Quantitative and Qualitative Methods

Society for Prevention Research

Ad Hoc reviewer

Child Development, Prevention Science, Journal of Research on Educational Effectiveness, Multivariate Behavioral Research, Educational and Psychological Measurement, Social Science Research, Evaluation and Program Planning.

Languages

Turkish (native)

English

French (graduated from Saint Michel French Middle and High School)

Personal background information

Date of birth: August 12, 1981

Citizenship: Turkish

Marital Status: Married, 9 years (Turkish citizen)

Child: Daughter, 4 years old (TR-US dual citizen)