

Daniel Almirall

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dalmiral@isr.umich.edu
734-936-3077 (office)
734-834-2797 (mobile)

2248 Institute for Social Research
University of Michigan
426 Thompson Street
Ann Arbor, MI 48104-2321

Education

- 2002 - 2007 University of Michigan & Institute for Social Research, Ann Arbor
PhD, Statistics
Primary Advisor: Susan A. Murphy
Co-Advisors: Thomas R. Ten Have, Stephen Raudenbush, & Yu Xie
- 2000 - 2002 University of Michigan, Ann Arbor
MA, Statistics
- 1996 - 2000 University of Florida, Gainesville
BS, Mathematics; BA, Statistics
Minor Concentration: Education

Positions Held

- 2017 - present Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor
Department of Statistics (Courtesy), University of Michigan, Ann Arbor
Research Associate Professor (Tenured)
Co-Director, Data Science for Dynamic Intervention Decision-making Lab (d3lab)
- 2016 - present Population Studies Center, Institute for Social Research, University of Michigan, Ann Arbor
Faculty Associate
- 2010 - present Methodology Center, Penn State University, State College
Investigator
- 2004 - present RAND Corporation, Pittsburgh, Pennsylvania
Summer Associate (2004), Research Adjunct (2004 - present)
- 2013 - 2017 Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor
Research Assistant Professor (Tenure Track)
- 2010 - 2012 Institute for Social Research, Survey Research Center, University of Michigan, Ann Arbor
Faculty Research Fellowship
- 2007 - 2009 Department of Biostatistics, Duke University Medical Center, Durham, North Carolina
Assistant Professor
- 2007 - 2009 HSR&D, VA Medical Center, Durham, North Carolina
Biostatistician
- 2002 - 2007 Institute for Social Research, University of Michigan, Ann Arbor
Graduate Student Research Assistant
- 2000 Department of Biostatistics, Harvard School of Public Health, Boston, Massachusetts
Summer Research Associate
Advisors: David Wypij & Louise Ryan

Publications

60 peer-reviewed publications (total)
33 peer-reviewed methodological or statistical journal publications
27 peer-reviewed collaborative journal publications
10 book chapters or similar

Peer-Reviewed Articles (Methodological or Statistical Work)

Dziak, J. J., Yap, J. R., **Almirall, D.**, McKay, J. R., Lynch, K. G., and Nahum-Shani, I. (2019). A Data Analysis Method for Using Longitudinal Binary Outcome Data from a SMART to Compare Adaptive Interventions. *Multivariate Behavioral Research*, 1-24.

Nahum-Shani, I., **Almirall D. (major role)**, Yap, J., McKay, J.R., Lynch, K.G., Freiheit, E.A., Dziak, J.J. (accepted 2019) “SMART Longitudinal Analysis: A Tutorial for Using Repeated Outcome Measures from SMART Studies to Compare Adaptive Interventions.” *Psychological Methods*

Almirall, D., Kasari, C., McCaffrey, D.F., Nahum-Shani, I. (2018) “Developing Optimized Adaptive Interventions in Education”, *Journal of Research on Educational Effectiveness*, 11:1, 27-34, DOI: 10.1080/19345747.2017.1407136

Kilbourne, A.M., Smith, S.S., Choi, S.Y., Koschmann, E., Liebrecht, C., Rusch, A., Abelson, J.L., Eisenberg, D., Himle, J.A., Fitzgerald, K., and **Almirall, D. (major role in design and write-up)** (2018). “Adaptive School-based Implementation of CBT (ASIC): clustered-SMART for building an optimized adaptive implementation intervention to improve uptake of mental health interventions in schools.” *Implementation Science*, 13 (1) 119. DOI: 10.1186/s13012-018-0808-8.

Bidargaddi N., **Almirall D. (major role in design, analysis and write-up)**, Murphy S.A., Nahum-Shani I., Kovalcik M., Pituch T., Maaieh H., Strecher V. (2018) “To prompt or not to prompt? A micro-randomized trial of time-varying push notifications to increase proximal engagement with a mobile health application” *Journal of Medical Internet Research*, 6 (11).

Grant S., Agniel D., **Almirall, D. (senior author)**, Burkhart Q., Hunter S.B., McCaffrey D.F., Pedersen E.R., Ramchand R., Griffin B.A. (2017). “Developing adaptive interventions for adolescent substance use treatment settings: protocol of an observational, mixed-methods project” *Addiction Science and Clinical Practice*, 12:35.

Tao Y., Wang, L., **Almirall, D. (senior author)** (2018). “Tree-based Reinforcement Learning for Estimating Optimal Dynamic Treatment Regimes”. *Annals of Applied Statistics*, 12 (3), 1914-1938.

Kidwell, K., Seewald, N., **Almirall, D. (senior author)** (2018). “Design and Analysis Considerations for Comparing Dynamic Treatment Regimens with Binary Outcomes from Sequential Multiple Assignment Randomized Trials” *Journal of Applied Statistics*, 45 (9), 1628-1651.

Boruvka, A., **Almirall D.**, Murphy, S.A. (2018). “Assessing Time-Varying Causal Effect Moderation in Mobile Health” *Journal of the American Statistical Association*, 113 (523), 1112-1121.

NeCamp, T., Kilbourne, A., **Almirall D. (senior author)** (2017). “Comparing Cluster-level dynamic treatment regimens using sequential, multiple assignment randomized trials: Regression estimation and sample size considerations” *Statistical Methods in Medical Research Journal*, 26 (4), 1572-1589.

Setodji C.M., McCaffrey D.F., Burgette L.F., **Almirall D.**, Griffin B.A. (2017). The right tool for the job: choosing between covariate balancing and generalized boosted model propensity scores. *Epidemiology*.

Griffin B.A., McCaffrey, D.F., **Almirall, D.**, Burgette, L., Setodji C.M. (accepted 2017, to appear). “Chasing balance versus model fit when estimating propensity scores.” *Journal of Causal Inference*. DOI: <https://doi.org/10.1515/jci-2015-0026>

Publications (continued)

Nahum-Shani, I., Ertefaie, A., Lu, Xi (Lucy), Lynch, K., McKay, J., Oslin, D., **Almirall, D. (senior author)** (accepted 2016, to appear). A SMART Data Analysis Method for Constructing Adaptive Treatment Strategies in Substance Use Disorders. *Addiction*. DOI: 10.1111/add.13743

Wodtke, G.T., **Almirall, D. (senior author)** (accepted 2016, to appear). Analyzing causal effect heterogeneity with time-varying treatments and time-varying effect moderators: Structural nested mean models and regression-with-residuals estimation. *Sociological Methodology*.

Almirall D., Chronis-Tuscano, A. (2016). "Adaptive interventions in Child and Adolescent Mental Health." *Journal of Clinical Child and Adolescent Psychology*, 45(4):383-395.

Almirall D., DiStefano, C., Chang, Y., Shire, S., Lu, X., Nahum-Shani, I., Kasari, C. (2016). Adaptive interventions and longitudinal outcomes in minimally verbal children with ASD: Role of speech-generating devices. *Journal of Clinical Child and Adolescent Psychology*, 45(4):443-456.

Kim, H., Ionides, E., **Almirall, D. (senior author)** (2016). "A sample size calculator for SMART pilot studies." *SIAM Undergraduate Research Online*, Volume 9. DOI: <http://dx.doi.org/10.1137/15S014058>

Sherwood, N.E., Butryn, M.L., Forman, E. M., **Almirall D. (major role in design and write-up)**, Seburg, E.M., Crain, L.A., Kunin-Batson, A.S., Hayes, M.G., Levy, R.L., Jeffery, R.W. (2016). The BestFIT trial: A SMART approach to developing individualized weight loss treatments. *Contemporary Clinical Trials*, March, 47:209-216.

Lu, X., Nahum-Shani, I., Kasari, C., Lynch, K.G., Oslin, D.W., Pelham, W.E., Fabiano, G., **Almirall D. (senior author)** (2016). Repeated measures analysis of sequential, multiple assignment, randomized trials: Modeling considerations. *Statistics in Medicine*, 35:1595-1615.

Klasjna, P., Hekler, E., Shiffman, S., Boruvka, A., **Almirall, D.**, Tewari, A., Murphy, S.A. (2015). Micro-randomized trials: An experimental design for developing just-in-time adaptive interventions. *Health Psychology*, December, 34:1220-1228.

Kilbourne, A.M., **Almirall, D. (major role in design and write-up)**, Eisenberg, D., Waxmonsky, J., Goodrich, D.E., Fortney, J.C., Kirchner, J.E., Solberg, L.I., Main, D., Bauer, M.S., Kyle, J., Murphy, S.A., Nord, K.M., Thomas, M.R. (2014). "Protocol: Adaptive Implementation of Effective Programs Trial (ADEPT): cluster randomized SMART trial comparing a standard versus enhanced implementation strategy to improve outcomes of a mood disorders program." *Implementation Science*, 9,132. DOI: 10.1186/s13012-014-0132-x.

Collins L.M., Nahum-Shani I., **Almirall D.** (2014). "Optimization of Behavioral Dynamic Treatment Regimens Based on the Sequential Multiple Assignment Randomized Trial (SMART)." *Clinical Trials*, 11:426-434.

Almirall D., Nahum-Shani I., Sherwood N.E., Murphy S.A. (2014). "Introduction to SMART Designs for the Development of Adaptive Interventions: With Application to Weight Loss Research" *Translational Behavioral Medicine*, 4(3):260-274.

Almirall D., McCaffrey D.F., Griffin, B.A., Ramchand R., Murphy S.A. (2013). "Time-varying Effect Moderation using the structural nested mean model: Estimation Using Inverse-Weighted Regression-with-Residuals" *Statistics in Medicine*, 33(20):3466-3487.

McCaffrey D.F., Griffin B.A., **Almirall D.**, Slaughter M.E., Ramchand R., Burgette L. (2013). "A Tutorial on Propensity Score Estimation for Multiple Treatments Using Generalized Boosted Models." *Statistics in Medicine*, 32(19):3388-3414. DOI:10.1002/sim.5753

Publications (continued)

Almirall D., Compton S.N., Rynn M.A., Walkup J.T., Murphy S.A. (2012). “SMARTer Discontinuation Trials: With Application to the Treatment of Anxious Youth.” *Journal of Child and Adolescent Psychopharmacology*, 22(5):364-74.

Nahum-Shani I., Qian M., **Almirall D.**, Pelham W.E., Gnagy B., Fabiano G., Waxmonsky J., Yu J., Murphy S.A. (2012). “Experimental Design and Primary Data Analysis Methods for Comparing Adaptive Interventions.” *Psychological Methods*, 17(4):457-477.

Nahum-Shani I., Qian M., **Almirall D.**, Pelham W.E., Gnagy B., Fabiano G., Waxmonsky J., Yu J., Murphy S.A. (2012). “Q-Learning: A Data Analysis Method for Constructing Adaptive Interventions.” *Psychological Methods*, 17(4):478-494.

Almirall D., Lizotte, D., Murphy S.A. (2012). “SMART Design Issues and the Consideration of Opposing Outcomes,” a Discussion of “Evaluation of Viable Dynamic Treatment Regimes in a Sequentially Randomized Trial of Advanced Prostate Cancer” by Wang, Rotnitzky, Lin, Millikan, and Thall. *Journal of the American Statistical Association, Case Studies and Applications*, 107(498):509-12.

Almirall D., Compton S.N., Gunlicks-Stoessel M., Duan N., Murphy S.A. (accepted 2011; in press). “Designing a Pilot Sequential Multiple Assignment Randomized Trial for Developing an Adaptive Treatment Strategy.” *Statistics in Medicine*, 31(17):1887-902.

Almirall D., McCaffrey D.F., Ramchand R., Murphy S.A.. (2013). “Subgroups Analysis when Treatment and Moderators are Time-varying.” *Prevention Science*, 14(2):169-78. DOI: 10.1007/s11121-011-0208-7.

Almirall D., Ten Have T.R., Murphy S.A. (2010; March). “Structural Nested Mean Models for Assessing Time-Varying Causal Effect Moderation.” *Biometrics*, 66(1):131-139.

Bray B.C., **Almirall D.**, Zimmerman R.S., Lynam D., Murphy S.A. (2006). “Assessing the Total Effect of Time-Varying Predictors in Prevention Research.” *Prevention Science* 7(1): 1-17.

Peer-Reviewed Articles (Collaborative Work)

Smith, S., **Almirall D. (senior author; major role in design and write-up)**, Bauer, M., Liebrecht, C., Eisenberg, D. Kilbourne, A.M. (2019) “Change in Patient Outcomes after Augmenting a Low-level Implementation Strategy in Community Practices that are Slow to Adopt a Collaborative Chronic Care Model: A Cluster Randomized Implementation Trial” *Medical Care*

Schoenfelder, E., Chronis-Tuscano, A., Strickland, J., **Almirall, D. (major role in design)**, and Stein, M. A. (2019). “Piloting a Sequential, Multiple Assignment, Randomized Trial (SMART) for Mothers with ADHD and their At-Risk Children.” *Journal of Child and Adolescent Psychopharmacology*.

Smith, S. **Almirall D. (senior author)**, Prenovost, K., Goodrich, D.E., Abraham, K.M., Liebrecht, C., Kilbourne, A.M. (2018) “Organizational culture and climate as moderators of enhanced outreach for persons with serious mental illness: Results from a cluster-randomized trial of adaptive implementation strategies.” *Implementation Science*, 13 (1), 93.

Joseph AM, Rothman AJ, **Almirall, D.**, Begnaud A, Chiles C, Cinciripini PM, Fu SS, Graham AL, Lindgren BR, Melzer AC, Ostroff JS, Seaman EL, Taylor KL, Toll BA, Zeliadt SB, Vock DM. (2018) Lung Cancer Screening and Smoking Cessation Clinical Trials. SCALE (Smoking Cessation within the Context of Lung Cancer Screening) Collaboration. *American Journal of Respiratory and Critical Care Medicine*, January 15;197(2):172-182.

Publications (continued)

- Fu, S.S, Rothman, A.J., Vock, D.M., Lindgren, B., **Almirall, D.**, Begnaud, A., Melzer, A., Schertz, K., Glaeser, S., Hammett, P., Joseph, A.M. (accepted 2017). Program for lung cancer screening and tobacco cessation: Study protocol of a sequential, multiple assignment, randomized trial. *Contemporary Clinical Trials*
- Smith, S.N., Lai, Z., **Almirall D.**, Goodrich, D. E., Abraham, K.M., Nord, K.M., Kilbourne, A.M. (2015). Implementing Effective Policy in a National Mental Health Re-engagement Program for Veterans. *Journal of Nervous and Mental Disease*, 205(2):161-170.
- Kilbourne, A.M., Barbaresso, M., Lai, Z., Nord, K., Bramlet, M., Goodrich, D.E., Post, E., **Almirall D.**, Bauer, M. (2017). Improving Physical Health in Patients with Chronic Mental Disorders: 12-Month Results from a Randomized Controlled Collaborative Care Trial. *Journal of Clinical Psychiatry*, January, 78(1):129-137.
- Chronis-Tuscano, A., Wang, C.H., Strickland, J., **Almirall D.**, Stein, M.A. (2016). Moving Toward Personalized Treatment of Mothers with ADHD and Their At-Risk Children: A SMART Pilot. *Journal of Clinical Child and Adolescent Psychology*, 45(4):510-521.
- Kilbourne, A.M., **Almirall, D. (major role in design, analysis and write-up)**, Goodrich, D. E., Lai, Z., Abraham, K. M., Nord, K. M., and Bowersox, N. W. (2014). "Enhancing outreach for persons with serious mental illness: 12-month results from a cluster randomized trial of an adaptive implementation strategy." *Implementation Science*, 9(1), 163. DOI: 10.1186/s13012-014-0163-3.
- Gunlicks-Stoessel, M., Mufson, L., Westervelt, A., Murphy S.A., **Almirall D.** (2016). "A Pilot SMART for Developing an Adaptive Treatment Strategy for Adolescent Depression". *Journal of Clinical Child and Adolescent Psychology*, 45(4):480-494.
- Ramchand R., Griffin B.A., McCaffrey D.F., **Almirall D.**, and Morral A. (2014). "Do Improvements in Substance Use and Mental Health Symptoms During Treatment Translate to Long-Term Outcomes In The Opposite Domain?" *Journal of Substance Abuse Treatment*, 47(5):339-346.
- Peris T.S., Compton S.N., **Almirall D.**, Kendall P.C., Albano A.M., Walkup J.T., March J.S., Birmaher B., Ginsburg G.S., Sherrill J., Rynn M.A., McCracken J.T., Keeton C.P., Sakolsk D., Iyengar S., Piacentini J.C. (2015). "Trajectories of Change in Youth Anxiety During Cognitive Behavior Therapy." *Journal of Consulting and Clinical Psychology*, 83(2):239-252.
- Kilbourne, A.M., Abraham, K.M., Goodrich, D.E., Bowersox, N.W., **Almirall D. (senior author)**, Lai, Z., Nord, K.M. (2015). "Re-Engaging Veterans with Serious Mental Illness into Care: Preliminary Results (6 Month Outcomes) from a National Randomized Trial of an Enhanced versus Standard Implementation Strategy." *Psychiatric Services*, January, 66(1):90-93.
- Kilbourne, A.M., Bramlett, M., Barbaresso, M.M., Nord, K.M., Goodrich, D.E., Zongshan, L., Post, E.P., **Almirall D.**, Verchinina, L., Duffy, S.A., Bauer, M.S. (2014). "SMI Life Goals: Description of a Randomized Trial of a Collaborative Care Model to Improve Outcomes for Persons with Serious Mental Illness". *Contemporary Clinical Trials*, 39(1):74-85.
- Kasari C., Kaiser A., Goods K., Nietfeld J., Mathy P., Landa R., Murphy S.A., **Almirall, D. (senior author)** (2014). "Communication Interventions for Minimally Verbal Children with Autism: Sequential Multiple Assignment Randomized Trial" *Journal of the American Academy of Child and Adolescent Psychiatry*, June, 53(6):635-646.

Publications (continued)

- Compton S.N., Peris T.S., **Almirall D.**, Birmaher B., Sherill J., Kendall P.C., March J.S., Gosch E.A., Ginsburg G.S., Rynn M.A., Piacentini J.C., McCracken J.T., Keeton C.P., Suvey C., Aschenbrand S.G., Sakolsky D., Iyengar S., Walkup J.T., Albano A.M (2014). “Predictors and Moderators of Treatment Response in Childhood Anxiety Disorders: Results from the CAMS Trial.” *Journal of Consulting and Clinical Psychology*, 82(2):212-224, DOI:10.1037/a003548.
- Schuler M., Griffin B.A., Ramchand R., **Almirall D.**, McCaffrey D. (2014) “Effectiveness of adolescent substance abuse treatments: is biological drug testing sufficient?” *Journal of Studies on Alcohol and Drugs*, 75:358-370.
- Griffin B.A., Ramchand R., **Almirall D.**, Slaughter, M., Burgette, L., McCaffrey D.F. (2013). “Estimating the Causal Effects of Cumulative Treatment Episodes for Adolescents using Marginal Structural Models and Inverse Probability of Treatment Weighting.” *Journal of Substance Abuse Treatment*, March, 136:69-78.
- Kilbourne A.M., Abraham K.M., Goodrich D.E., Bowersox N.W., **Almirall D. (senior author)**, Zongshan L., Nord K. (2013). “Cluster randomized adaptive implementation trial comparing a standard versus enhanced implementation intervention to improve uptake of an effective re-engagement program for patients with serious mental illness” *Implementation Science*, 8(136). DOI: 10.1186/1748-5908-8-136.
- Yancy, W.S., Coffman, C.J., Geiselman, P.J., Kolotkin, R.L., **Almirall D.**, Oddone, E.Z., Mayer, S.B., Gaillard, L.A., Turner, M., Smith, V.A., Voils, C.I. (2013). “Considering Patient Diet Preference to Optimize Weight Loss: Design Considerations of a Randomized Trial Investigating the Impact of Choice.” *Contemporary Clinical Trials*, 35(1):106-116
- Franklin M.E., Freeman J., Sapyta J., Moore P., Compton S.N., **Almirall D. (major role in analysis and write-up)**, March J. (2011). “Cognitive-Behavior Therapy Augmentation of Pharmacotherapy in Pediatric Obsessive Compulsive Disorder: The Pediatric OCD Treatment Study II (POTS II) Randomized, Controlled Trial.” *Journal of American Medical Association*, 306(11):1224-1232.
- Lin P.H., Wang Y., Grambow S.C., Goggins, W., **Almirall D.** (2012). “Dietary Saturated Fat Intake Is Negatively Associated With Weight Maintenance Among the PREMIER Participants.” *Obesity*, 20(3):571-575. DOI: 10.1038/oby.2011.17.
- Bosworth H.B., **Almirall D.**, Weiner B.J., Maciejewski M., Kaufman M.A., Powers B.J., Oddone E.Z., Shou-Yih D.L., Damush T., Newell M, Smith V., Anderson D., Roumie C., and Jackson G.L. for HTN-IMPROVE Investigators (2010). “The Implementation of a Translational Study Involving a Primary Care Based Behavioral Program to Improve Blood Pressure Control: The HTN-IMPROVE Study Protocol.” *Implementation Science*, 5(1).
- Sánchez-Ortuño M.M., Edinger J.D., **Almirall D.**, Means M.K. (2010). “Home Is Where Sleep Is: An Ecological Approach to Test the Validity of Actigraphy for the Assessment of Insomnia.” *Journal of Clinical Sleep Medicine*, 6(1):21-29.
- Gellad Z.F., **Almirall D.**, Provenzale D., Fisher D.A. (2009). “Time from Positive Screening Fecal Occult Blood Test to Colonoscopy and Risk of Neoplasia.” *Digestive Disease Sciences*, 54(11):2497-2502.
- Yancy W.S., **Almirall D.**, Maciejewski M.L., Kolotkin R.L., McDuffie J.R., Westman E.C. (2009). “Effects of Two Weight Loss Diets on Health-related Quality of Life.” *Quality of Life Research* 18(3):281-89.
- Mithas S., **Almirall D.**, Krishnan M.S. (2006). “Using Propensity Scores for Causal Inference: Do CRM Systems Cause One-to-one Marketing Effectiveness?” *Statistical Science* 21(2):223-33.
- Newburger J.W., Wypij D., Bellinger D.C., du Plessis A.J., Kuban K.C., Rappaport L.A., **Almirall D.**, Wessel D.L., Jonas R.A., Wernovsky G. (2003). “Length of Stay After Infant Heart Surgery is Associated with Long-Term Cognitive Outcome.” *Journal of Pediatrics* July, 143:67-73.

Publications (continued)

Book Chapters & Other

Almirall D., Kasari C. (Fall 2018). “Frequently Asked Questions About Adaptive Interventions: Implications for Sequentially-Randomized Trials” *The Clinical Psychologist*, 71 (4), 4-9 Shannon Sauer-Zavala (Editor).

Almirall D., Nahum-Shani I., Wang, L., Kasari C. (accepted 2018, to appear). “Experimental Designs for Research on Adaptive Interventions: Singly- and Sequentially-Randomized Trials” *Optimization of Multicomponent Behavioral Biobehavioral and Biomedical Interventions using MOST*. L. Collins, K. Kugler (Editors).

Vock, D., **Almirall D. (senior author)** (accepted 2018, to appear). Sequential multiple assignment randomized trial. Wiley StatsRef: Statistics Reference Online.

Hall, K., Nahum-Shani, I. August G., Patrick, M., Murphy, S.A., **Almirall D. (senior author)** (2019). “Adaptive Intervention Designs in Substance Use Prevention.” In *Advances in Prevention Science*. Z. Sloboda, H. Petras, L. Robertson, R. Hingson (Editors), pp. 263-280, Springer.

Almirall, D., Shih, W. (2017). “SMART Research Design.” *The SAGE Encyclopedia of Abnormal and Clinical Psychology*.

Almirall, D., Nahum-Shani, I., Schulenberg, J. (2015). Adaptive Interventions for Adolescents and their Families and Communities. *Society for Research on Adolescence (President’s Blog)*, <https://goo.gl/bGQasZ>

Almirall D., Blalock J. (2013). “Summary of the Society for Research on Nicotine and Tobacco (SRNT) Treatment Network Webinar: Getting SMART About Developing Individualized Sequences of Health Interventions.” *Nicotine and Tobacco Research (Society News)*, 16(2):252.

Almirall D., Coffman C.J., Yancy W.S., Murphy S.A. (2010). “Maximum Likelihood Estimation of the Structural Nested Mean Model Using SAS PROC NLP.” *Analysis of Observational Health-Care Data Using SAS*. D. Faries, A. Leon, J.M. Haro, B. Obenchain (Editors).

Almirall D., Murphy S.A. (2009). “Dynamic Treatment Regimens.” *Encyclopedia of Medical Decision Making*. M.W. Kattan (Editor). Thousand Oaks, CA: Sage Publications.

Mithas S., **Almirall D.**, Krishnan M.S. (2009). “A Potential Outcomes Approach to Assess Causality in Information Systems Research.” In R.J. Kauffman and P.P. Tallon (Eds.) *Economics, Information Systems, and Electronic Commerce Research II: Advanced Empirical Methodologies*. Armonk, NY: M.E. Sharpe.

Work Submitted for Publication

Nahum-Shani, I. and **Almirall D.** (under review) “Getting SMART About Adaptive Interventions in Education.” *Special Report* Commissioned by National Center for Special Education Research at the Institute for Education Sciences.

Seewald, N.J., Nahum-Shani I., McKay, J. **Almirall D. (senior author)** (under review). “Sample Size Considerations for the Analysis of Continuous Repeated-Measures Outcomes in Sequential Multiple-Assignment Randomized Trials.”

Qian T., Yoo H., Klasnja P., **Almirall D.**, Murphy S.A. (under review) “Estimating time-varying causal excursion effect in mobile health with binary outcomes”

Publications (continued)

Work in Progress

Almirall D., Kasari C., Shire S., Kaiser A., Smith T., Lord C., Murphy S.A., Sugar C., and Shih W., for the AIM-ASD Study Team (in progress). “Adaptive Intervention for School-Age, Minimally Verbal Children with ASD, in the Community Study (AIM-ASD): Rationale, design, and methods.”

Ghosh P., **Almirall D.**, Chakraborty B. (in progress) “Dynamic Generalized Odds-Ratio (dGOR): A novel approach to assess Dynamic Treatment Regimes (DTR) with An Ordinal Outcome”

Griffin B.A., Agniel D., Hunter S.B., Grant S., Pedersen E.R., Ramchand R., **Almirall D. (senior author; major role in design and write-up)** (in progress). “Identifying an optimal sequence of individually-tailored, level-of-care placement decisions for adolescent substance use treatment using observational data.”

Luers B., Qian M., Nahum-Shani I., Kasari C. and **Almirall D.** (in progress). “Longitudinal Mixed Models for Comparing Embedded Dynamic Treatment Regimens in Sequentially Randomized Trials.”

Almirall D. Murphy S.A. (in progress). “Case-study analysis of a micro-randomized trial to estimate the moderated effects of push notifications on engagement with a commercial mobile-health app: An application of the multiplicative structural nested mean model”

Kidwell, K., Lu X., Kasari C., Nahum-Shani I., **Almirall D.** (in progress). “Small sample considerations in the comparison of embedded dynamic treatment regimens using SMART data: With application in autism research.”

Almirall D., Lu X., Griffin, B.A., McCaffrey D.F. (in progress). “Accounting for within-person residual correlation in IPTW estimation of the repeated measures marginal structural model: Practice and pitfalls”

Almirall, D., Nahum-Shani, I. Murphy, S.A. (longer-term book project). “Getting SMART about Adaptive Interventions: Case Studies in the Behavioral, Biobehavioral and Educational Sciences”

Funding

Principal Investigator Role

2018 - 2021	IES (Co-PI, with Nahum-Shani) <i>Getting SMART about Adaptive Intervention in Education</i> . (\$275,000 per year) (Outstanding score of 1.07 on a range of 1(best)-5(poor).) Grant.
2018	IES <i>Getting SMART about Adaptive Intervention in Education, Research Report Supplement</i> . (\$64,100) Contract.
2015 - 2020	NIDA/NIH, R01-DA039901 (Co-PI, with Nahum-Shani) <i>Novel Longitudinal Methods for SMART Studies of Drug Abuse and HIV</i> . (\$338,525 per year) Grant.
2012 - 2015	NIMH/NIH, R03-MH097954. <i>Discovering Tailoring Variables in Childhood Mental Health Treatment Research</i> . Grant.
2010 - 2011	United States Department of Agriculture, Cooperative Agreement 58-4000-0-0026. <i>Dynamic Participation in the Supplemental Nutrition Assistance Program and Its Impact on Child Overweight</i> . (\$25,000) Grant.

Co-Investigator Role

2018 - 2023	NIDA/NIH, R01-DA047279. <i>Promoting the Implementation of Clinical Guidelines for Opioid Prescribing in Primary Care Using Systems Consultation</i> (Principal Investigator: Andrew Quanbeck, Ph.D., University of Wisconsin). Grant.
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Funding (continued)

- Role: Lead Methodologist
- 2018 - 2023 DoD, W81XWH1810790. *Comparative Effectiveness of EIBI and Adaptive ABA for Children with Autism in TRICARE* (Principal Investigator: Tristram Smith, Ph.D., University of Rochester). Grant.
Role: Designed Trial
- 2017 - 2022 NIMH/NIH, R01-MH11420301. *Improving Student Mental Health: Adaptive Implementation of School-based CBT* (Principal Investigator: Amy Kilbourne, Ph.D., University of Michigan). Grant.
Role: Lead Methodologist
- 2016 - 2020 NICHD/NIH, P01-HD087155. *Transition to Adulthood within its Life Course & Intergenerational Family Context*. (Principal Investigator: Narayan Sastry, Ph.D., Institute for Social Research, University of Michigan). Grant.
Role: Co-Investigator.
- 2015 - 2019 NIDA/NIH, P50-DA039838. *Innovative Methods for Constructing Just-In-Time Adaptive Interventions*. (Principal Investigator: Susan A. Murphy, Ph.D., Department of Statistics & Institute for Social Research, University of Michigan). This is part of a NIDA Center grant joint with the Methodology Center at Penn State University (Center PI: Linda Collins, PhD). Grant.
Role: Co-Investigator
- 2014 - 2019 NCA/NIH, R01-CA188892. *Evaluating Options for Non-Responders: A SMART Approach to Enhancing Weight Loss* (Principal Investigator: Nancy Sherwood, Ph.D., HealthPartners Institute for Education and Research). Grant.
Role: Designed Trial
- 2014 - 2018 NIMH/NIH, R01-MH099898. *Improving Mental Health Outcomes: Building an Adaptive Implementation Strategy* (Principal Investigator: Amy Kilbourne, Ph.D., University of Michigan). Grant.
Role: Lead Methodologist
- 2012 - 2017 NICHD/NIH, R01-HD73975. *Adaptive Interventions for Minimally Verbal Children with ASD in the Community* (Principal Investigator: Connie Kasari, Ph.D., University of California, Los Angeles). Grant.
Role: Lead Methodologist
- 2012 - 2017 Veterans Affairs, IPA Sub-contract. *Life Goals Collaborative Care to Improve Health Outcomes in Mental Disorders* (Principal Investigator: Amy Kilbourne, Ph.D., University of Michigan). Grant.
Role: Lead Methodologist
- 2012 - 2015 NIDA/NIH, R01-DA034065. *Causal Effects of Community-based Treatments for Youth*. (Principal Investigator: Beth Ann Griffin & Daniel F. McCaffrey, Ph.D., RAND Corporation). Grant.
Role: Co-Investigator
- 2010 - 2015 NIDA/NIH, P50-DA10075. *SMART Methodology for Constructing Adaptive Treatments*. (Principal Investigator: Susan A. Murphy, Ph.D., Department of Statistics & Institute for Social Research, University of Michigan) (\$336,271) This is part of a NIDA Center grant joint with the Methodology Center at Penn State University (Center PI: Linda Collins, PhD). Grant.
Role: Co-Investigator
- 2013 - 2015 NICHD/NIH, R01-HD074603. *Heterogeneous Treatment Effects in Demographic Research* (Principal Investigator: Yu Xie, Ph.D., Survey Research Center & Institute for Social Research, University of Michigan). Grant.

Funding (continued)

- Role: Co-Investigator
- 2007 - 2010 Department of Veterans Affairs, VHA, IIR-05-213-1. *Sleep Specialty Consultation: Improving Management of Sleep Disorders*. (Principal Investigator: Jack Edinger, Ph.D., Durham VA & Duke University Medical Center, Psychiatry) (\$769,000). Grant.
Role: Biostatistician
- 2007 - 2010 Department of Veterans Affairs, VHA. *HTN Implementation Project*. (Principal Investigator: Hayden Bosworth, Ph.D., Durham VA & Duke University Medical Center, General Medicine) (\$900,000). Grant.
Role: Biostatistician
- 2007 - 2012 Department of Veterans Affairs, VHA, IIR-05-202-2. *Family Supported Smoking Cessation for Chronically Ill Veterans*. (Principal Investigator: Lori Bastian, Ph.D., Durham VA & Duke University Medical Center, General Internal Medicine) (\$900,000). Grant.
Role: Biostatistician
- 2006 - 2007 Samueli Institute & Department of Defense, IEA-0000040. *Effects of Guided Imagery for Military Sexual Trauma on PTSD Symptoms, Neurosteroids, and Brain Function*. (Principal Investigator: Jennifer Strauss, Ph.D., Durham VA & Duke University Medical Center, Psychiatry) (\$175,000). Grant.
Role: Biostatistician
- 2007 - 2012 National Institute of Mental Health, R01-MH079154. *Family Based Treatment of Early Childhood OCD*. (Principal Investigator: John March, Ph.D., Duke University Medical Center, Psychiatry) (\$170,000). Grant.
Role: Biostatistician

Presentations

- Mixed-effect Models for Comparing the Dynamic Treatment Regimens Embedded in a SMART*
May 2019, Department of Biostatistics, University of Minnesota, Minneapolis, MN (Invited)
April 2019, Joint Program in Survey Methodology, ISR, Ann Arbor, MI (Invited)
June 2018, Tom TenHave Mental Health Statistics Symposium, Chicago, IL (Invited)
- Getting SMART About Adaptive Interventions in Education*
May 2019, TIES Program, Penn State University, State College, PA (Invited, 2.5-hour talk)
- Pragmatic Clinical Trials for Informing Adaptive (Implementation) Interventions*
May 2019, NIH Clinical Trials Collaboratory, Bethesda, MD (Invited)
- Getting SMART about Adaptive Interventions for in Youth Mental Health: Case Studies in Autism and Implementation Science*
April 2019, American Institutes for Research, Washington, DC (Invited)
March 2019, Institute for Translational Research, College of Education, Univ of Minnesota (Invited)
December 2018, Dept of Population Health, School of Medicine, Univeristy of Utah (Invited)
February 2018, The Pless Center, School of Nursing, New York University, NY (Invited)
February 2018, T32 Training Program, School of Nursing, University of Michigan, Ann Arbor (Invited)
January 2018, Department of Biobehavioral Health, Penn State University, State College (Invited)
November 2017, Prevention Science Methodology Group, Northwestern University, Chicago (Invited)
- Adaptive Interventions and Implementation Science*
February 2019, Center for Dissemination and Implementation, Univ of Washington St. Louis (Invited)
- Analysis of Micro-randomized Trials with a Binary Outcome*

Presentations (continued)

November 2018, mHealth Symposium, Fred Hutch Cancer Center, Seattle, WA (Invited)

What is an Adaptive Intervention? What is a Sequentially-randomized Trial? Why?

April 2018, Lightning Rounds, Society for Behavioral Medicine, New Orleans, LA (Invited)

Adaptive Interventions for Individualizing Urinary Incontinence Treatment

February 2018, Individualizing Urinary Incontinence Meeting, NIDDK, Bethesda, MD (Invited)

Sequential Multiple Assignment Randomized Trials for Building Adaptive Interventions in Education

January 2018, Institute for Education Sciences PI Meeting, Washington DC (Invited)

December 2016, Institute for Education Sciences PI Meeting, Washington DC (Invited)

December 2015, Institute for Education Sciences PI Meeting, Washington DC (Invited)

Assessing Proximal and Lagged Moderated Effects in Mobile Health.

September 2017, Columbia Causal Conference, Columbia University, NY (Invited)

April 2016, Department of Biostatistics, University of Pennsylvania, PA (Invited)

Sequential Multiple Assignment Randomized Trials for Building (Cluster-level) Adaptive Interventions

September 2017, Department of Statistics, Harvard University, Boston, MA (Invited)

February 2017, Center for Children & Families, Florida International University, Miami, FL (Invited)

February 2017, School of Medicine, University of Miami, Miami, FL (Invited)

February 2017, Institute for Policy Research, Northwestern University, Evanston, IL (Invited)

Assessing Time-varying Causal Effect Moderation in Mobile Health

January 2017, Department of Public Health Sciences, University of Chicago, IL (Invited)

January 2017, Center for Causal Inference, RAND Corporation, Washington, DC (Invited)

December 2016, Department of Biostatistics, Johns Hopkins University, Baltimore, MD (Invited)

November 2016, Department of Biostatistics, University of Washington, Seattle, WA (Invited)

August 2016, Joint Statistical Meetings, Chicago, IL

Adaptive Interventions: What are they? Why do we need them? How can we study them?

December 2016, Inst. for Transl. Research in Children's Mental Health, Univ of Minnesota (Invited)

Adaptive Interventions in Autism: What are they? Why do we need them? How can we study them?

June 2016, NIH Autism Centers of Excellence, Principal Investigator Meeting, Washington DC

A Look Under the Hood of SMART Designs for Developing Adaptive Interventions.

April 2016, Center for Drug Use and HIV Research (CDUHR), NYU, New York, NY (Invited)

Getting SMART About Developing Individualized Sequences of Oral Health Interventions

March 2016, American Association for Dental Research Methods Group, Los Angeles, CA (Keynote)

Adaptive Interventions and SMARTs in Autism.

January 2016, Department of Psychology, University of Michigan, Ann Arbor, MI

Adaptive Interventions and SMART Designs in Mental Health Services Research

September 2015, Ctr for Mental Health Policy & Services, Univ Pennsylvania, Phil., PA (Invited)

On the Comparison of Adaptive Interventions Using Repeated Measures Data from a SMART: Applications in Child and Adolescent Mental Health

May 2015, Quantitative Methods for Social & Behavioral Sciences, University of Chicago, IL (Invited)

Adaptive Interventions and SMART Methods: Applications in Child and Adolescent Mental Health.

April 2015, Preventive Medicine Grand Rounds, Rush University, Chicago, IL (Invited)

Presentations (continued)

Getting SMART about Innovative Designs for Studying Effectiveness: The Case of Adaptive Implementation Interventions and Connections to HIV Research

February 2015, Conference on Retroviruses & Opportunistic Infections, Seattle, WA (Invited)

Improving Mental Health Outcomes: Building an Adaptive Implementation Strategy Using a Cluster Randomized SMART

December 2014, Conf. on Science of Dissemination & Implementation, Washington, DC (Invited)

Adaptive Interventions and SMART Designs in Autism

October 2014, Vanderbilt University, Nashville, TN (Invited)

Comparing Adaptive Interventions Using Data Arising from a SMART: With Application to Autism

March 2014, Department of Biostatistics, Columbia University, New York, NY (Invited)

Introduction to a SMART Way to Construct Adaptive Interventions

November 2013, Methods in Prevention Program Packages Meeting (MP3), Washington, DC (Invited)

September 2013, Optimizing Behavioral Interventions in HIV Research, Washington, DC (Invited)

Getting SMART About Developing Individualized Sequences of Health Interventions

September 2013, U.S. Census Bureau, Washington, DC (Invited)

Examining moderated effects of additional adolescent substance use treatment: Structural nested mean model estimation using inverse-weighted regression-with-residuals.

February 2013, Dept. of Epidemiology & Biostatistics, Univ of Maryland, Baltimore, MD (Invited)

September 2012, Department of Statistics, George Mason University (Invited)

July 2012, Institute of Mathematical Statistics, Asia Pacific Rim Meeting, Tsukuba, Japan (Invited)

March 2012, RAND Corporation, Pittsburgh, PA (Invited)

December 2011, Department of Biostatistics, University of Michigan, Ann Arbor, MI

October 2011, International Conference on Health Policy Statistics, Cleveland, OH (Invited)

Getting SMART about Developing Individualized Sequences of Health Interventions.

November 2012, Innovative Methods Program for Advancing Clinical Trials, Raleigh, NC (Invited)

Piloting and Sizing Sequential Multiple Assignment Randomized Trials in Dynamic Treatment Regime Development

October 2012, Advances in Interdisciplinary Statistics and Combinatorics, UNC, Greensboro, NC

Variable Selection for Individualized Treatment Decision-Making.

July 2012, Joint Statistical Meetings, San Diego, California

An Adaptive Intervention for Reducing College Student Alcohol-Related Consequences: A SMART Pilot Study Proposal

March 2012, Center for the Study of Health & Risk Behaviors, Univ. of Washington, Seattle (Invited)

Developing Adaptive Health Interventions: Getting SMART

March 2012, AIMS Center, Univ. of Washington, Seattle (Invited)

Experimental Designs for Developing Adaptive Treatment Strategies

October 2011, Annual Meeting of the Obesity Society, Orlando, FL (Invited)

June 2011, Childhood Obesity Prevention and Treatment Research Program (Invited)

April 2011, Annual Meeting of the Society of Behavioral Medicine, Washington, DC

Time-varying Causal Effect Moderation in the Presence of Time-varying Confounding using Structural Nested Mean Models.

August 2010, Joint Statistical Meetings, Vancouver, Canada

Presentations (continued)

Experimental Designs for Developing Adaptive Treatment Strategies: With Application to Bipolar Disorder
June 2010, International College of Neuro-psychopharmacology, Hong Kong, China (Invited)

Participation in the Supplemental Nutrition Assistance Program and its Impact on Child BMI
June 2010, PSID Early Results Workshop, Institute for Social Research, Ann Arbor, MI

Subgroups Analysis when Treatment and Moderators are Time-Varying.
March 2010, Methodology Center, Pennsylvania State University, State College (Invited)

Causal Effect Moderation (Modification) When Treatment or Exposure is Time-Varying: When to use the MSM versus the SNMM.
September 2009, Federal Interagency Subgroups Analysis Meeting, Bethesda, MD. (Invited)

Structural Nested Mean Models for Assessing Time-varying Effect Moderation
January 2010, Prevention Science and Methodology Group, University of South Florida. (Invited)
September 2009, Causal Inference Working Group, University of North Carolina, Chapel Hill (Invited)
May 2009, Atlantic Coast Causal Modeling Conference, Philadelphia, Pennsylvania (Invited)
September 2007, Department of Statistics, North Carolina State University, Raleigh, NC (Invited)
July 2007, Joint Statistical Meetings, Salt Lake City, UT
March 2007, Michigan Student Symposium for Interdisciplinary Statistical Sciences, Ann Arbor, MI
August 2006, Joint Statistical Meetings, Seattle, WA
May 2006, Durham VA Medical Center, HSR&D, Durham, NC
March 2006, ENAR Biometrics Conference, Tampa, FL [Distinguished Student Paper Award]
November 2005, Grad Seminar, Department of Statistics, University of Michigan, Ann Arbor, MI

Structural Nested Mean Models for Assessing Time-varying Effect Moderation: A Maximum Likelihood Implementation
August 2009, Joint Statistical Meetings, Washington, DC.

Experimental Designs for Developing Adaptive Treatment Strategies: With Application to the Management of Child Anxiety
September 2009, Durham VA Medical Center, HSR&Development, Durham VA Medical Center
May 2008, NIMH-NCDEU Conference, Phoenix, AZ (Invited)
August 2009, Institute of Psychiatry, University of Sao Paulo, Brazil (Invited)

Assessing the Effects of Time-Varying Predictors and Treatments: Conceptual Issues
September 2007, Durham VA Medical Center, HSR&Development, Durham VA Medical Center

Causal Effect Moderation with Application to Level of Care Matching for Adolescent Substance Abuse
November 2006, Grad Seminar, Department of Statistics, University of Michigan, Ann Arbor, MI.

Why Study Time-varying Effect Moderation?
October 2005, Quantitative Methodology Program, Institute for Social Research, Ann Arbor, MI

Teaching

Workshops

Getting SMART About Adaptive Interventions in Education.
March 2019, Institute for Social Research, Ann Arbor, MI (4-day comprehensive workshop)
An IES grant-funded workshop.

Just-in-Time Adaptive Interventions.
May 2018, Modern Modeling Methods Conference, Storrs, CT (1-day workshop)

Teaching (continued)

Getting SMART about Adaptive Interventions.

May 2016-2018, Training on Optimization of Behavioral Interventions, Wash., DC (1-day workshop)

Novel Experimental Approaches to Designing Effective Multi-component Interventions.

April 2018, Society for Behavioral Medicine, Louisiana, LA (1-day workshop)

Getting SMART About Adaptive Interventions in Education.

June 2017, Institute of Education Sciences, Washington, DC (Invited 3-day workshop)

Building Just-in-time Adaptive Interventions in Mobile Health: The Role of Micro-Randomized Trials.

May 2016, Association for Psychological Science, Annual Convention, Chicago, IL (1/2-day workshop)

Just-in-time Adaptive Interventions in Mobile Health.

March 2016, Society for Behavioral Medicine, Washington, DC (1/2-day workshop)

Getting SMART about Adaptive Implementation Interventions

September 2015, Implementation Research Collab., Univ of Washington, Seattle (1-day workshop)

Getting SMART about Adaptive Interventions: From Clinical to Implementation Science.

June 2015, AcademyHealth, Washington, DC (1/2-day workshop)

Getting SMART: Experimental Design Methods for Developing Adaptive Interventions

May 2015, Society for Prevention Research, Washington, DC (1/2-day workshop)

Getting SMART about Adaptive Interventions in Education: A Conceptual Introduction

December 2014, Institute of Education Sciences, Washington, DC (1-day workshop)

Getting SMART about Adaptive Interventions: A Workshop

December 2014, Taste of Methodology, Penn State University, PA (1-day workshop)

Experimental Design and Analysis Methods for Developing Adaptive Interventions: Getting SMART

June 2014, University of Michigan, Ann Arbor, MI (2-day workshop)

Clinical Trials for Adaptive Intervention Designs: Workshop on the Design and Conduct of Sequential Multiple Assignment Randomized Trials

May 2014, Annual Meeting of the Society for Clinical Trials, Philadelphia, PA (1-day workshop)

Combating Autism with Adaptive Interventions: Novel Treatment and Research Methods for Individualizing Treatment

May 2014, International Meeting for Autism Research, Atlanta, GA (2-hr workshop)

Getting SMART about Developing Adaptive Interventions: Individualizing Sequences of Treatment

April 2014, Annual Meeting of the Society for Behavioral Medicine, Philadelphia, PA (1-day workshop)

Getting SMART About Developing Adaptive Interventions

March 2014, Society for Research on Educational Effectiveness, Washington, DC (2-day workshop)

Getting SMART about Developing Individualized, Adaptive Health Interventions: An Introduction to a Novel Experimental Study Design

February 2013, VA Medical Center, Baltimore, MD (8-hr workshop)

Getting SMART about Developing Individualized, Adaptive Health Interventions: An Introduction to a Novel Experimental Study Design

June 2012, Health Behavior Training Inst., Univ of Wisconsin, Madison, WI (2.5-hr workshop)

Getting SMART About Developing Individualized Sequences of Health Interventions

Teaching (continued)

June 2012, Methods Work, Chicago, IL (2-day workshop)
November 2011, Association of Behavioral & Cognitive Therapies, Toronto, Canada (8-hr workshop)
October 2011, Addiction Health Services Research Conference, Fairfax, VA (4-hr workshop)
June 2011, College on Problems of Drug Dependence, Hollywood, FL (2-hr workshop)
June 2011, University of Minnesota NIMH Prevention Center, Twin Cities, MN (8-hr workshop)
April 2011, Society of Behavioral Medicine, Washington, DC (3-hr workshop)

Developing Dynamic, Sequential Treatments that Optimize Mental Health Outcomes: Experiences with a Novel Clinical Trial Design

June 2011, New Clinical Drug Evaluation Unit (NCDEU), Boca Raton, FL (4-hr workshop)

Graduate/Professional Courses

How to Design and Draw Inferences in Experimental and Quasi-Experimental Studies (Lecturer): Summer Institute in Survey Research Techniques, University of Michigan: Summer 2015

Topics in Clinical Research (Ad-hoc Lecturer): Clinical Research Training Program, Duke University Medical Center: Winter 2008

Undergraduate Courses

Introduction to Statistics (Discussion Leader): University of Michigan: Fall 2006, Winter 2007

Introduction to Probability (Substitute): University of Michigan: Fall 2013, Winter 2006, 2011

Pre-calculus Algebra: University of Florida: Fall 1998, Spring 1999

Pre-Calculus, Survey of Calculus, and Calculus I (Discussion Leader): University of Florida: Spring 1997 - Spring 2000

High School Courses

SAT/ACT Exam Preparation Courses: Santa Fe Community College: Fall 1999, Spring 2000

Students

* Grant-funded.

PhD Level

Brook Luers*	Winter 2018–present; Department of Statistics, University of Michigan <i>Mixed-effects Models for Analysing Longitudinal Outcomes in a SMART</i>
Nick Seewald*	Summer 2016–present; Department of Statistics, University of Michigan <i>Analysis of Longitudinal Outcomes in a SMART, and Sample Size Calculation</i> <u>Notables</u> : Won 1st Prize at the 2017 Michigan Student Symposium for Interdisciplinary Statistical Sciences.
Tim Necamp*	Fall 2015–Spring 2019; Department of Statistics, University of Michigan <i>Regression Estimation and Sample Size Calculation for Cluster Randomized SMARTs</i> <u>Notables</u> : Mr. Necamp’s first, accepted, first-author manuscript arose from this work (published in <i>Statistical Methods for Medical Research</i>).
Xi Lu*	Summer 2013–Summer 2015; Department of Statistics, University of Michigan <i>Repeated Measures Analysis of Data Arising from a SMART</i>

Students (continued)

Notables: (1) This work became part of Dr. Lu's PhD Thesis; (2) Dr. Lu's first, accepted, first-author manuscript arose from this work (published in *Statistics in Medicine*).

Post-grad: Google, Penn State University (post-doc)

Robert Yuen*

Fall 2011–Fall 2012; Department of Statistics, University of Michigan

Inference for an IPTW Estimator of the Structural Nested Mean Model

Notables: Dr. Yuen is a co-author on a manuscript arising from this work (published in *Statistics in Medicine*).

Post-grad: Liberty Mutual

Masters Level

Tuo Wang

Fall 2017–Summer 2018; Department of Statistics, University of Michigan

A data-driven approach to estimating individualized treatment rules: With application in pediatric anxiety

Jingyue Xi

Fall 2017–Spring 2018; Department of Statistics, University of Michigan

Baseline moderated effects of dynamic treatment regimens on a repeated-measures outcome using SMART data: With application in addictions research

Yeonil Kim

Winter 2014–Summer 2014; Department of Statistics, University of Michigan

Guided readings and practicum on multiple imputation with the Panel Study for Income Dynamics (PSID)

Undergraduates

Madison Stoms*

Fall 2017–Winter 2019; Department of Statistics, University of Michigan

Visualizing Individual Trajectories within Dynamic Treatment Regimens using SMART Data

Notables: Honors Thesis

Sophia (Tiffany) Luo*

Fall 2017–Winter 2019; Department of Statistics, University of Michigan

Efficiency Gains Resulting from Estimating the Known Weights When Estimating End-of-Study Outcomes of the DTRs in a SMART

Notables: Honors Thesis

Michael Kolvacik

Summer 2017–Spring 2018; Department of Computer Science Engineering, University of Michigan

Micro-randomized Trial (MRT) for testing push notifications for engagement in a commercial mobile health app

Notables: Mr. Kolvacik was the key liaison between a local start-up company (JOOL Health) and our lab on the design and analysis of a MRT.

Kelly Hall

Fall 2015–Summer 2017; Department of Statistics, University of Michigan

Adaptive Interventions in Substance Use Prevention

Notables: Ms. Hall's first, first-author manuscript arose from this work.

Post-grad: Yale University (grad-school)

Hwanwoo "Josh" Kim*

Summer 2014–Winter 2016; Department of Statistics, University of Michigan

A Sample Size Calculator for SMART Pilot Studies

Notables: (1) Honors Thesis; (2) Mr. Kim's first, accepted, first-author manuscript arose from this work (published in the *SIAM Undergraduate Research Journal*); (3) Won 2nd Prize in the 2015 USPROC Competition; (4) Developed a web applet to implement method

Raghav Haran

Winter 2013; Department of Statistics, University of Michigan

Students (continued)

Guided readings on adaptive interventions, SMARTs and SMART pilot studies

Professional Service

2018 - 2020	Member: Senior Staff Advisory Committee Member (major commitment), Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, MI
August 2018 - present	Associate Editor (Inaugural): <i>Behavioral Health Implementation Research Journal</i>
August 2018 - present	Member: Ad-hoc Faculty Search Committee, Population Studies Center, Institute for Social Research, University of Michigan, Ann Arbor, MI
August 2018	Member: Survey Research Center Summer Institute Situational Review Committee, Institute for Social Research, University of Michigan, Ann Arbor, MI
2017 - 2018	Faculty Co-Lead: Diversity, Equity and Inclusion Committee, Institute for Social Research, University of Michigan, Ann Arbor, MI
Summer 2016	Member: Planning Committee, NIH Autism Centers of Excellence Principal Investigator Meeting, Washington, DC
2015 - 2016	Member: Diversity Committee, Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, MI
July 2015	Member: Institute of Education Sciences Technical Working Group on “Adaptive Interventions and SMARTs in Education Research”, Washington, DC
Summer/Fall 2015	Member: Dean/Director’s Search Committee, Institute for Social Research, University of Michigan, Ann Arbor, MI
Spring 2014	Co-Leader (joint with Megan Patrick): Review of the Experiences of Junior Faculty, Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, MI
2010 - 2013	Host/Moderator: Quantitative Methodology Program Seminar Series, Institute for Social Research, University of Michigan, Ann Arbor, MI
2008 - 2009	Member: Internal Grant Review Committee, Health Services Research Department, Durham VA Medical Center
2008 - 2009	Member: PhD and Masters Curriculum Committee, Biostatistics & Bioinformatics Department, Duke University Medical Center
Grant Reviews	June 2015: Member, National Institute of Mental Health Special Emphasis Panel (ZMH1)
Special Issue	2012-2015: Co-Editor (with Professor Andrea Chronis-Tuscano) of a Special Issue on “Science of Adaptive Treatment Strategies in Child and Adolescent Mental Health” for the <i>Journal of Clinical Child and Adolescent Psychology</i> .
K-Awardees	Meredith Gunlicks-Stoessel, University of Minnesota, Adolescent Depression Dikla Eckshtain, Harvard University, Child Depression
Data Safety	CAMS/DBT Suicide Prevention (PI: Pistorello, University of Nevada-Reno)

Professional Service (continued)

Monitoring Boards	Sequenced Therapies for Comorbid and Primary Insomnias (Co-PI: Edinger/Morin, University of Montreal) Preventing Addiction Related Suicide (PI: Comtois, University of Washington) Attention Control Training for Infants at Risk for ADHD (PI: Johnson, Birkbeck, University of London)
Journal Referee	American Journal of Evaluation Annals of Applied Statistics Annals of Oncology Behavioral Health Implementation Research (Associate Editor) Biometrics Biostatistics BMC Medical Research Methodology Clinical Trials Contemporary Clinical Trials Journal of the American Academy of Child and Adolescent Psychiatry Journal of the American Statistical Association Journal of Clinical Child and Adolescent Psychology Journal of Consulting and Clinical Psychology Journal of Research on Educational Effectiveness Prevention Science Sociological Methodology Statistics in Medicine Statistical Science

Professional Affiliations

2016 - present	Member: National Hispanic Science Network (of the National Institute on Drug Abuse)
2008 - present	Member: Society for Clinical Trials
2003 - present	Member: International Biometric Society's Eastern North American Region subdivision
2002 - present	Member: Institute of Mathematical Statistics, and American Statistical Association

Other Skills

Programming

Statistical R, SAS

Other Fortran, HTML, L^AT_EX

Languages

Fluent Spanish, English

References are available upon request.