

INBAL BILLIE NAHUM-SHANI
CURRICULUM VITAE
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Business Address:

University of Michigan
Institute for Social Research
426 Thompson Street, Room 2464
Ann Arbor, MI 48106-1248
E-mail: inbal@umich.edu

RESEARCH INTERESTS

My research focuses on developing novel methodologies and behavioral theory to inform adaptive interventions, namely interventions that use ongoing information about the individual to modify the type/intensity/delivery-mode of support.

Health Psychology:

- Adaptive Interventions
- Just-In-Time Adaptive Interventions
- Mobile Health (mHealth)
- Intervention Engagement
- Social Support, Stress and Health

Research Methods:

- Sequential Multiple Assignment Randomized Trial (SMART)
- Factorial and Fractional Factorial Designs
- Micro-Randomized Trials (MRTs)
- Multilevel Experimental Designs and Data Analytics
- Hybrid Experimental Designs

EDUCATION

Ph.D. Behavioral and Management Sciences (2008)

Technion - Israel Institute of Technology, Israel

M.A. Educational Leadership and Policy (Cum Laude 2003)

School of Education, Haifa University, Israel

B.A. Educational Leadership and Sociology (2001)

School of Education, Haifa University, Israel

POSITIONS HELD

- 2018-present **Co-Director**
Data-Science for Dynamic Decision-Making Center (d3c)
Institute for Social Research
University of Michigan
- 2017-present **Research Associate Professor**
Institute for Social Research
University of Michigan
- 2013-2017 **Research Assistant Professor**
Institute for Social Research
University of Michigan
- Research Fellow**
Smithers Institute for Alcohol-Related Workplace Studies
Cornell University
- 2010 – 2013 **Faculty Research Fellow**
Survey Research Center, Institute for Social Research
University of Michigan
- 2008-2009 **Research Associate (post-doctoral fellow)**
The Methodology Center
Pennsylvania State University
- 2004-2008 **Data Analyst**
Statistics Lab, School of Industrial Engineering and Management, Technion:
Israel Institute of Technology
- 2003-2005 **Project Coordinator**
Haifa-Boston Leadership Foundation
Haifa, Israel
- 2002-2004 **Project Coordinator**
Substance Abuse Prevention Institute
Haifa, Israel
- 2000-2002 **Project Coordinator**
The Unit of Academic Planning and Evaluation
Haifa University, Haifa, Israel

AWARDS

- 2020 Michigan Institute for Data Science Reproducibility Challenge Award: Translating Strategies for Promoting Engagement in Mobile Health: A Micro-randomized Feasibility Trial
- 2017 University of Michigan Research Faculty Recognition Award
- 2015 Outstanding Reviewer Award; Academy of Management: Academy of Management Discoveries.
- 2007 Best Dissertation Award; Academy of Management: Human Resource / SHRM Foundation
- 2002 Cum Laude for graduate students
Haifa University, Haifa, Israel.
- 2001 Cum Laude for graduate students
Haifa University, Haifa, Israel.

GRANTS

- 2021 **P50 DA054039 (NIH/NIDA)**, 9/21 - 6/26; \$13.2M
Center for Methodologies for Adapting and Personalizing Prevention, Treatment and Recovery Services for SUD and HIV (MAPS Center)
PI: Nahum-Shani/Almirall/Collins/Murphy
Role: Contact PI
- R01 AA027994 (NIH/NIAAA)**, 4/2021 - 3/2026; \$518,547
Evaluation and optimization of a just-in-time messaging intervention to reduce alcohol-facilitated intimate partner violence perpetration among at-risk young adult men and women.
PI: Stappenbeck
Role: Co-Investigator (Site PI)
- R01 MH126871 (NIH/NIMH)**, 7/2021 - 6/2026; \$151,030
Adaptive intervention to prevent adolescent suicidal behavior following psychiatric hospitalization: A Sequential Multiple Assignment Randomized Trial.
PI: Czyz
Role: Co-Investigator
- R01 HD103904 (NIH/NICHD)**, 7/2021 - 6/2026; \$191,660
mHealth-based just-in-time adaptive intervention to improve physical activity levels of individuals with spinal cord injury.
PI: Hiremath

Role: Co-Investigator (Site PI)

R01 MH125857 (NIH/NIMH), 12/2021 - 11/2026; \$129,463

Testing adaptive interventions to improve PTSD treatment outcomes in federally qualified health centers.

PI: Sripada

Role: Co-Investigator

P01 AA029547 (NIH/NIAAA), 6/2021 - 5/2026; \$419,425

SHARE Program: Innovations in translational behavioral science to improve self-management of alcohol and HIV in adolescents and emerging adults.

PI: Naar

Role: Co-Investigator (Site PI)

U01 CE003382 (CDC), 9/2021 - 9/2026; \$86,659

Michigan Youth Violence Prevention Center (YVPC): Building evidence for gun violence prevention.

PI: Zimmerman

Role: Co-Investigator

2020

R01 DA039901 (NIH/NIDA), 9/15 - 5/25; \$2,913,828

Novel methods for intensive longitudinal data in SMART studies of drug use and HIV.

PI: Nahum-Shani/Almirall

Role: Contact PI

R34 MH124767 (NIH/NIMH), 9/2020 - 8/2023; \$702,000

Developing text-based support for parents of suicidal adolescents after emergency department visits: A multi-component intervention pilot.

PI: Czyz

Role: Co-Investigator

U01 CA229437-03S1 (NIH/NCI), 9/2020-8/2021; \$214,062

Supplement to 'novel use of mHealth data to identify states of vulnerability and receptivity to JITAIs'.

PI: Nahum-Shani/Wetter

Role: Contact PI

2019

UG3 DE028723 (NIH/NIDCR), 4/19 - 3/25; \$623,644

Personalized digital behavior change interventions to promote oral health.

PI: Shetty

Role: Co-Investigator (Site PI)

- R01CA224537 (NIH/NCI)**, 1/19 - 12/22; \$281,166
Affective science and smoking cessation: Real-time, real-world assessment.
PI: Lam
Role: Co-Investigator (Site PI)
- Redleaf Foundation**, 6/19 - 6/20; \$26,996
The utility and feasibility of mobile technology in prevention interventions to promote child and family mental health: A Demonstration and feasibility project among military families.
PI: Gewirtz
Role: Co-Investigator (Site PI).
- 2018 **U01 CA229437 (NIH/NCI)**, 9/18 - 8/22; \$2,535,251
Novel use of mHealth data to identify states of vulnerability and receptivity to JITAIs.
PI: Nahum-Shani/Wetter
Role: Contact PI
- R01 AA026574 (NIH/NIAAA)**, 9/18 - 8/21; \$463,478
An adaptive preventive intervention (API) to optimize the transition from universal to indicated resources for college student alcohol use.
PI: Patrick
Role: Co-Investigator
- PCS 2017C2-7613 (PCORI)**, 10/18 - 9/20; \$35,840
Multi-level interventions for increasing tobacco cessation at FQHCs.
PI: Wetter
Role: Co-Investigator (Site PI)
- MICHR Accelerating Synergy**, 9/2018 - 8/2019; \$100,000
Center for adaptive interventions for prevention/intervention for youth substance abuse.
PI: Walton/Nahum-Shani
Role: MPI
- R324 B180003 (IES)**, 7/18 - 6/21; \$438,479
Getting SMART about adaptive interventions in education.
PI: Almirall/Nahum-Shani
Role: MPI
- 2016 **R01 DK108678 (NIH/NIDDK)**, 3/16 - 2/21; \$179,077
SMART weight loss management.
PI: Spring/Nahum-Shani
Role: MPI

- 2015
- R01 DA039901 (NIH/NIDA)**, 9/15 - 7/20; \$3,051,515
Novel longitudinal methods for SMART studies of drug abuse and HIV.
PI: Nahum-Shani/Almirall
Role: Contact PI
- P50 DA039838 (NIH/NIDA)**, 9/15 - 8/20; \$2,497,042
Innovative methods for constructing just-in-time adaptive interventions
PI: Collins; Project Lead: Murphy
Role: Co-Investigator
- R01 AA023187 (NIH/NIAAA)**, 9/15 - 8/20; \$2,922,274
Data-based methods for just-in-time adaptive interventions in alcohol use.
PI: Murphy
Role: Co-Investigator.
- 2014
- P50 DA10075 (NIH/NIDA) Pilot Study Funding**
Developing just in time adaptive interventions for promoting mental health among college students.
PI: Collins
Role: Pilot Study PI
- U54 EB020404 (NIH)**, 9/14 - 9/20
Center of excellence on mobile sensor data-to-knowledge (MD2K).
PI: Kumar
Role: Co-Investigator
- R01 MH103244 (NIH/NIMH)**, 4/14 - 3/19; \$3,104,133
Electronic bridge to mental health (eBridge) for college students.
PI: King
Role: Co-Investigator.
- 2013
- University of Michigan's GCTC Phase 1 Funding**,
Engaging the student community to develop a universal, video-based mental health intervention for young people.
PI: Eisenberg
Role: Co-Investigator
- R01 AA022113 (NIH/NIAAA)**, 11/13 - 10/18; \$379,628
The college-to-work transition & alcohol misuse
PI: Bacharach
Role: Co-Investigator (Site PI).

Blue Cross Blue Shield of Michigan Foundation Award,

Online innovative video-based intervention.

PI: Eisenberg

Role: Co-Investigator

RC1 AA019092 (NIH/NIAAA),

Statistical methods for sequential treatment decisions in alcoholism.

PI: Lynch

Role: Co-Investigator (Site PI).

ICOS University of Michigan Small Grant,

Aggression in healthcare organizations: Interdisciplinary Committee on Organizational Studies Small Grant.

PI: Nahum-Shani

Role: PI

Mcube University of Michigan,

Developing real-time adaptive interventions using mobile technology; Mcubed research funding project.

Role: MPI.

2008

P50 DA10075 (NIH/NIDA) Pilot Study Funding,

Conceptual and methodological framework for understanding help-seeking dynamics.

PI: Collins

Role: Pilot Study PI

PUBLICATIONS

*Student/Mentored research

** Senior author

Nahum-Shani, I., Shaw, S.,* Carpenter, S.,* M., Murphy, S. A., & Yoon C. (in press). Engagement in digital interventions. *American Psychologist*.

Coughlin, L.N.,* Bonar, E.E., Walton, M.A., Fernandez, A., Duguid, I. & **Nahum-Shani, I.** ** (in press). New directions for motivational incentive interventions for smoking cessation. *Frontiers in Digital Health*.

Nahum-Shani, I., Dziak, J.J., & Wetter, D.W. (in press). MCMTC: A pragmatic framework for selecting an experimental design to inform the development of digital interventions. *Frontiers in Digital Health*.

Sobolev, M.,* Militello, L., Okeke, F.N., Adler, D., & **Nahum-Shani, I.**** (in press). Digital prompts to increase engagement with headspace app and stress regulation among parents: Feasibility study. *JMIR Formative Research*.

- Czyz, E.K.,* Koo, H.J., Al-Dajani, N., King, C.A., & **Nahum-Shani, I.**** (in press). Predicting short-term suicidal thoughts in adolescents using machine learning: Developing decision tools to identify daily-level risk after hospitalization. *Psychological Medicine*.
- Nahum-Shani, I.**, Potter, L.N., Lam, C.Y., Yap, J., Moreno, A., Stoffel, R., Wu, Z., Wan, N., Dempsey, W., Kumar, S., Ertin, E., Murphy, S.A., Rehg, J.M., & Wetter, D.W. (in press). The Mobile Assistance for Regulating Smoking (MARS) Micro-Randomized Trial Design Protocol. *Contemporary Clinical Trials*.
- Hojjatnia, S.,* Daly, E., Hnat, T., Hossain, S., Kumar, S., Lagoa, C., **Nahum-Shani, I.**, Samiei, S., Spring, D. (in press). Dynamic models of stress-smoking responses based on high-frequency sensor data. *Nature NPJ Digital Medicine*.
- Nahum-Shani, I.**, Rabbi, M., Yap, J., Philyaw-Kotov, M.L., Klasnja, P., Bonar, E.E., Cunningham, R.M., Murphy, S.A., & Walton, M.A., (in press). Translating Strategies for Promoting Engagement in Mobile Health: A Proof-of-Concept Micro-Randomized Trial. *Health Psychology*.
- Qian, T.,* Walton, A.E., Collins, L.M., Klasnja, P., Lanza, S.T., **Nahum-Shani, I.**, Rabbi, M., Russell, M.A., Walton, M.A., Yoo, H., Murphy, S.A., (in press). The micro-randomized trial for developing digital interventions: Experimental design and data analysis considerations. *Psychological Methods*.
- Roberts, G., Clemens, N., Doabler, C.T., Vaughn, S., Almirall, D., & **Nahum-Shani, I.**** (in press). Multi-tiered systems of support, adaptive interventions and SMART designs. *Exceptional Children*.
- Battalio, S.,* Conroy, D.E., Dempsey, W., Menictas, M., Murphy, S.A., **Nahum-Shani, I.**, Qian, T., Kumar, S., Spring, B. (in press). Sense2Stop: A Micro-randomized trial using wearable sensors to optimize a just-in-time-adaptive stress management intervention for smoking relapse prevention. *Contemporary Clinical Trials*.
- Coughlin, L.,* **Nahum-Shani, I.**, Bonar, E.E., Philyaw-Kotov, M., Rabbi, M., Klasnja, P., Walton, M.A., (2021). Toward a JITAI to reduce young adult alcohol use: Testing approaches for identifying when to intervene. *Journal of Substance Use and Misuse*, 54(14), 2115-2125.
- Czyz, E.K.,* King, C.A., Prouty, D., Micol, V.J., Walton, M., & **Nahum-Shani, I.**** (2021). Adaptive intervention for prevention of adolescent suicidal behavior after hospitalization: A pilot sequential multiple assignment randomized Trial. *Journal of Child Psychology and Psychiatry*, 62(8), 1019-1031.
- Schlechter, C. R., Del Fiore, G., Lam, C. Y., Fernandez, M. E., Greene, T., Yack, M., Schulthies, S., Nelson, M., Bohner, C., Pruhs, A., Siaperas, T., Kawamoto, K., Gibson, B., **Nahum-Shani, I.**, Walker, T. J., & Wetter, D. W. (2021). Application of community – engaged dissemination and implementation science to improve health equity. *Preventive Medicine Reports*, 24: 101620.
- Patrick, M.E., Lyden, G.R., Morrell, N., Mehus, C.J., Gunlicks-Stoessel, M., Lee, C.M., King, C.A., Bonar, E.E., **Nahum-Shani, I.**, Almirall, D., Larimer, M.E., Vock, D.M. (2021). Outcomes of M-Bridge:

- A sequential multiple assignment randomized trial (SMART) for developing an adaptive preventive intervention for college drinking. *Journal of Consulting and Clinical Psychology*, 89 (7), 601-614.
- Coughlin, L.N.,* **Nahum-Shani, I.**, Kotov, M., Bonar, E.E., Rabbi, M., Klasnja, P., Murphy, S.A., & Walton, M.A., (2021). Developing an adaptive intervention for substance use prevention among adolescents and emerging adults: Feasibility and acceptability of a mobile health app. *JMIR mHealth and uHealth*, 9(1), e24424.
- Stanger, C., Kowatsch, T., Xie, H., **Nahum-Shani, I.**, Lim-Liberty, F., Anderson, M., ... & Rosenberg, B. (2021). A digital health intervention (SweetGoals) for young adults with type 1 diabetes: Protocol for a factorial randomized trial. *JMIR Research Protocols*, 10(2), e27109.
- Gibson, B., Kramer, H., Weir, C., Fiol, G., Borbolla, D., Schlechter, C.R., Lam, C., Nelson, M., Bohner, C., Schulthies, S., Sieperas, T., Pruhs, A., **Nahum-Shani, I.**, Fernandez, M.E., Wetter, D.W. (2021). Workflow analysis for design of an electronic health record-based tobacco cessation intervention in community health centers. *JAMIA Open*, ooaa070, <https://doi.org/10.1093/jamiaopen/ooaa070>.
- Nahum-Shani, I.**, Almirall, Yap, J.R., D. McKay, J., Lynch, K., Freiheit, E., & Dziak, J.J. (2020). SMART longitudinal analysis: A tutorial for using repeated outcome measures from SMART studies to compare adaptive interventions. *Psychological Methods*, 25(1), 1–29.
- Ghosh, P.,* **Nahum-Shani, I.**, Spring, B., & Chakraborty, B. (2020). Non-inferiority and equivalence tests in sequential, multiple assignment, randomized trials (SMARTs). *Psychological Methods*, 25(2), 182–205.
- Seewald, J.N.,* Kidwell, M.K., **Nahum-Shani, I.**, Wu, T., McKay, R.J., & Almirall, D. (2020). Sample size considerations for comparing dynamic treatment regimens in a sequential multiple-assignment randomized trial with a continuous longitudinal outcome. *Statistical Methods in Medical Research*, 29(7), 1891-1912.
- Artman, W.,* **Nahum-Shani, I.** Wu, T., McKay, J., & Ertefaie, A. (2020). Power analysis in a SMART design: Sample size estimation for determining the best embedded dynamic treatment regime. *Biostatistics*, 21(3), 432–448.
- Nagesh, S.,* Moreno, A., Carpenter, S., Yap, J., Chatterjee, S., Lizotte, S.L., Neng, W., Kumar, S., Lam, C., Wetter, D., **Nahum-Shani, I.**, & Rehg, J. (2020). Deep forecasting of EMA compliance: Distinguishing non-compliance from non-response. *Neural Information Processing Systems*.
- Moreno, A.,* Wu, Z., Yap, J., Wetter, D. Lam, C., **Nahum-Shani, I.**, Rehg, J. (2020). A functional EM algorithm for panel count data with missing counts. *Neural Information Processing Systems*.
- Czyz, E.K.,* Yap, J., & King, C. A., & **Nahum-Shani, I.**** Using intensive longitudinal data to identify early predictors of suicide-related outcomes in high-risk adolescents: Practical and conceptual considerations (2020). *Assessment*. 1073191120939168.

- Carpenter, S.M.,* Menictas, M., **Nahum-Shani, I.** Wetter, D.W., Murphy, S.A. (2020). Developments in Mobile Health Just-in-Time Adaptive Interventions for Addiction Science. *Current Addiction Reports*, 7, 280–290.
- Fernandez, M.E., Schlechter, C.R., Del Fiol, G., Gibson, B., Kawamoto, K., Siaperas, T., Pruhs, A., Greene, T., **Nahum-Shani, I.**, Schulthies, S., Nelson, M., Bohner, C., Kramer, H., Borbolla, D., Austin, S., Weir, C., Walker, T.W., Lam, C, Y., Wetter, D.W. (2020). QuitSMART Utah: an implementation study protocol for a cluster-randomized, multi-level Sequential Multiple Assignment Randomized Trial to increase Reach and Impact of tobacco cessation treatment in Community Health Centers. *Implementation Science*, 15(1), 1-13.
- Patrick, M. E., Boatman, J. A., Morrell, N., Wagner, A. C., Lyden, G. R., **Nahum-Shani, I.**, King, C. A., Bonar, E. E., Lee, C. M., Larimer, M. E., Vock, D. M., & Almirall, D. (2020). A sequential multiple assignment randomized trial (SMART) protocol for empirically developing an adaptive preventive intervention for college student drinking reduction. *Contemporary Clinical Trials*, 96, 106089.
- Dziak, J.J. Yap, J.R., Almirall, D. McKay, J., Lynch, K., & **Nahum-Shani, I.**** (2019). A data analysis method for using longitudinal binary outcome data from a SMART to compare adaptive interventions. *Multivariate Behavioral Research*, 54(5), 613-636.
- Nahum-Shani, I.** and Almirall, D. (2019). An Introduction to Adaptive Interventions and SMART Designs in Education (NCSE 2020-001). U.S. Department of Education. Washington, DC: National Center for Special Education Research. Retrieved [date] from <https://ies.ed.gov/ncser/pubs/>.
- Pfammatter, A.F.,* **Nahum-Shani, I.**, DeZelar, M., Scanlan, L., McFadden, G., Siddique, J., Hedeker, D., & Spring, B. (2019). SMART: Study protocol for a sequential multiple assignment randomized controlled trial to optimize weight loss management. *Contemporary Clinical Trials*. 82, 36-45.
- Nahum-Shani, I.**, & Bamberger, P.A. (2019). The lingering effects of work context: Ambient work unit characteristics and the impact of retirement on alcohol consumption. *Human Relations*, 72(4), 675-705.
- Levy, R., Mathai, M., Chatterjee, P., Onger, L., Njuguna, S., ... **Nahum-Shani, I.**, McCulloch, C.E., & Meffert, S.M. (2019). Implementation research for public sector mental health care scale-up (SMART-DAPPER): a sequential multiple, assignment randomized trial (SMART) of non-specialist-delivered psychotherapy and/or medication for major depressive disorder and posttraumatic stress disorder (DAPPER) integrated with outpatient care clinics at a county hospital in Kenya. *BMC psychiatry*, 19(1), 1-14.
- Czyz, E.,* K., King, C. A., & **Nahum-Shani, I.**** (2018). Ecological assessment of daily suicidal thoughts and attempts among suicidal teens after psychiatric hospitalization: Lessons about feasibility and acceptability. *Psychiatry Research*, 267, 566-574.

- Nahum-Shani, I.**, Dziak, J. J., & Collins, L. M. (2018). Multilevel factorial designs with experiment-induced clustering. *Psychological Methods*, *23*(3), 458-479.
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- Walton, A.,* **Nahum-Shani, I.**, Crosby, A., Klasnja, P., & Murphy, S.A. (2018). Optimizing Digital Integrated Care via Micro-Randomized Trials. *Clinical Pharmacology & Therapeutics*, *104*(1), 53-58.
- Bamberger, P. A., Koopmann, J., Wang, M., Larimer, M., **Nahum-Shani, I.**, Geisner, I., & Bacharach, S. B. (2018). Does College Alcohol Consumption Impact Employment Upon Graduation? Findings From a Prospective Study. *Journal of Applied Psychology*, *103*(1), 111.
- Nahum-Shani, I.**, Smith, S.N. Spring, B.J., Collins, L.M., Witkiewitz, K., Tewari, A., & Murphy, S.A. (2018). Just-in-Time Adaptive Interventions (JITAI) in Mobile Health: Key Components and Design Principles for Ongoing Health Behavior Support. *Annals of Behavioral Medicine*, *52*(6), 446-462.
- 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.
- Nahum-Shani, I.** & Militello, L.K. (2018). Promoting Military Family Well-Being with Digitally-Supported Adaptive and Just-In-Time Adaptive Interventions: Opportunities and Challenges. *The National Academies of Sciences, Engineering, and Medicine consensus study: The Well-Being of Military Families*; Commissioned paper.
- Rabbi, M.,* Kotov, M. P., Cunningham, R., Bonar, E. E., **Nahum-Shani, I.**, Klasnja, P., ... & Murphy, S. (2018). Toward increasing engagement in substance use data collection: development of the Substance Abuse Research Assistant app and protocol for a microrandomized trial using adolescents and emerging adults. *JMIR research protocols*, *7*(7), e166.
- Nahum-Shani, I.**, Ertefaie, A.,* Lu, X., McKay, J.R., Lynch, K.G., Oslin, D., & Almirall, D. (2017). A SMART Data Analysis Method for Constructing Adaptive Treatment Strategies for Substance Use Disorders. *Addiction*, *112*(5), 901-909.
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- Wagner III, B.,* Liu, E.,* Shaw, S. D., Iakovlev, G., Zhou, L., Harrington, C., ... & **Nahum-Shani, I.**** (2017, September). eWrapper: Operationalizing engagement strategies in mHealth. In *Proceedings of the 2017 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2017 ACM International Symposium on Wearable Computers* (pp. 790-798).

- Rabbi, M., Philyaw-Kotov, M., Lee, J., Mansour, A., Dent, L., Wang, X., Cunningham, R., Bonar, E., **Nahum-Shani, I.**, Klasnja, P. and Walton, M. (2017, September). SARA: a mobile app to engage users in health data collection. In *Proceedings of the 2017 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2017 ACM International Symposium on Wearable Computers* (pp. 781-789).
- Lu, X.,* **Nahum-Shani, I.**, Kasari, C., Lynch, K.G., Oslin, D.W., Pelham, W.E., Fabiano, G. and Almirall, D., (2016). Comparing dynamic treatment regimes using repeated-measures outcomes: modeling considerations in SMART studies. *Statistics in Medicine*, 35(10) 1595–1615.
- Ertefaie, A.,* Wu, T., Lynch, K., & **Nahum-Shani, I.**** (2016) Identifying a set that contains the best dynamic treatment regimes. *Biostatistics*, 17 (1), 135-148.
- Almirall D., DiStefano, C., Chang, Y., Shire, S., Kaiser, A., Lu, X., **Nahum Shani, I.**, Landa, R., Mathy, P., Kasari, C. (2016). Longitudinal effects of adaptive interventions with a speech-generating device in minimally verbal children with ASD. *Journal of Clinical Child and Adolescent Psychology*, 45(4), 442 - 456.
- Sarker, H.,* Tyburski, M., Rahman, M. M., Hovsepian, K., Sharmin, M., Epstein, D. H., Preston, C.D., Furr-Holden, A., Milam, A., **Nahum-Shani, I.**, al’Absiet, M., & Kumar, S. (2016). Finding Significant Stress Episodes in a Discontinuous Time Series of Rapidly Varying Mobile Sensor Data. Paper presented at the Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems, Santa Clara, California, USA.
- Nahum-Shani, I.**, Hekler, E. B., & Spruijt-Metz, D. (2015). Building health behavior models to guide the development of just-in-time adaptive interventions: A pragmatic framework. *Health Psychology*, 34, 1209-1219.
- Dempsey, W.,* Liao, P., Klasnja, P., **Nahum-Shani, I.**, & Murphy, S. A. (2015). Randomized trials for the Fitbit generation. *Significance*, 12(6), 20-23.
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- Kumar, S., Abowd, G., Abraham, W., al’Absi, M., Beck, J.G., Chau, D.H., Condie, T., Conroy, D.E., Ertin, E., Estrin, D., Ganesan, D., Lam, C., Marlin, B., Marsh, C.B., Murphy, S.A., **Nahum-Shani, I.**, Patrick, K., Rehg, J., Sharmin, M., Shetty, V., Sim, I., Spring, B., Srivastava, M., Wetter, D. (2015). Center of excellence for mobile sensor data-to-knowledge (MD2K). *Journal of the American Medical Informatics Association*, 22 (6), 1137-1142.
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- Collins, L., **Nahum-Shani, I.**, & Almirall, D. (2014). Optimization of behavioral dynamic treatment regimens based on the sequential, multiple assignment, randomized trial (SMART). *Clinical Trials, 11*(4), 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.
- Nahum-Shani, I.**, Henderson*, M.M., Lim, S., M.M., & Vinokur, A.D. (2014) Supervisor support: Does it buffer or exacerbate the adverse effects of supervisor undermining? *Journal of Applied Psychology, 99* (3), 484-503.
- Bodovski, K., **Nahum-Shani, I.**, & Walsh, R. (2013). School climate and students' early mathematics learning: Another search for contextual effects. *American Journal of Education, 119*(2), 209-234.
- Nahum-Shani, I.**, Qian, M., Almirall, D., Pelham, W.E., Gnagy, B., Fabiano, G., Waxmonsky, J., Yu, J., & Murphy, S. (2012b). Q-Learning: A secondary data analysis method for developing adaptive interventions. *Psychological Methods, 17*(4), 478-494.
- Nahum-Shani, I.**, Qian, M., Almirall, D., Pelham, W.E., Gnagy, B., Fabiano, G., Waxmonsky, J., Yu, J., & Murphy, S. (2012a). Experimental design and primary data analysis for developing adaptive interventions. *Psychological Methods, 17*(4), 457-477.
- Dziak, J., **Nahum-Shani, I.**, & Collins, L. (2012) Multilevel factorial experiments: Power and conceptual considerations. *Psychological Methods, 17*(2), 153-175.
- Lei, H.,* **Nahum-Shani, I.**, Lynch, K., Oslin, D., & Murphy, S.A. (2012). Using Sequential, Multiple Assignment, Randomized Trial (SMART) designs to build individualized treatment sequences. *Annual Review of Clinical Psychology, 8*, 21-48.
- Nahum-Shani, I.**, & Bamberger, P.A. (2011b). The buffering effect of social support on stressor-strain relations: The conditioning effects of perceived reciprocity patterns. *Organizational Behavior and Human Decision Processes, 114*, 49-63.
- Nahum-Shani, I.**, Bamberger, P.A., & Bacharach, S.B. (2011). Social support and well-being among blue collar workers: The conditioning effects of perceived patterns of supportive Exchange. *Journal of Health and Social Behavior, 52*, 123-139.
- Nahum-Shani, I.**, & Somech, A. (2011). Leadership, OCB and individual differences: Idiocentrism and allocentrism as moderators of the relationship between transformational and transactional leadership and OCB. *Leadership Quarterly, 22*, 353-366.

Nahum-Shani, I., & Bamberger, P.A. (2011a). Work hours, retirement and supportive relations among older adults. *Journal of Organizational Behavior*, 32, 345–369.

Cohen, A., **Nahum-Shani, I.**, & Doveh, E. (2010). Further insight and additional inference methods for polynomial regression applied to the analysis of congruence. *Multivariate Behavioral Research*, 45, 828-852.

Cohen, A., Doveh, E., & **Nahum-Shani, I.** (2009). Testing agreement for multi-item scales with indices rwg(J) and ADM(J). *Organizational Research Methods*, 12, 148-164.

Bamberger, P., Kohn, E., & **Nahum-Shani, I.** (2008). Aversive workplace conditions and employee grievance filing: The moderating effects of gender and ethnicity. *Industrial Relations*, 47, 229-260.

BOOK CHAPTERS AND OPEN SCIENCE STUDY PROTOCOLS

*Student/Mentored research

Nahum-Shani, I. Smart interventions. (in press). In M.R. Mehl, M. Rid, C. Wrzus, G. Harari, and U. Ebner-Priemer. (Eds.), *Mobile Sensing in Psychology: Methods and Applications*. Guilford.

Nahum-Shani, I., Wetter, D.W., & Murphy, S.A. (in press). Adapting just-in-time interventions to vulnerability and receptivity: Conceptual and methodological considerations. In N. Jacobson, L. Marsch & T. Kowatsch (Eds.), *Digital Therapeutics for Mental Health and Addiction: State of the Science and Vision for the Future*. Elsevier

Carpenter, S.M.,* Patrick, M., Morrell, N., **Nahum-Shani, I.**** (2020). Leveraging self-relevance to engage young adults in self-monitoring of alcohol Use. *Open Science Framework: Study Protocol*.

Hall, K. L.*, **Nahum-Shani, I.**, August, G., Patrick, M. E., Murphy, S. A., & Almirall, D. (2019). Adaptive intervention designs in substance use prevention. In Sloboda Z., Petras H., Robertson E., Hingson R. (Eds.) *Prevention of Substance Use. Advances in Prevention Science*. Springer, Cham (pp. 263-280).

El-Toukhy, S.* & **Nahum-Shani, I.**** (2019). *The JITAI Code: A primer on just-in-time-adaptive interventions*. Wiley StatsRef: Statistics Reference Online.

Almirall, D., **Nahum-Shani, I.**, Wang, L., & Kasari, C. (2018). Experimental designs for research on adaptive interventions: Singly- and sequentially-randomized trials. In L.M. Collins and K.C. Kugler (Eds.) *Advanced Topics in the Optimization of Behavioral and Biobehavioral Interventions* (pp. 89-120).

Nahum-Shani, I. & Dziak, J.J. (2018) Multilevel factorial designs in behavioral intervention development. In L.M. Collins and K.C. Kugler (Eds.) *Advanced Topics in the Optimization of Behavioral and Biobehavioral Interventions* (pp. 47-87).

Rabbi, M., Philyaw-Kotov, M., Klasnja, P., Bonar, E., **Nahum-Shani, I.**, Walton, M., & Murphy, S.A. (2017). SARA - substance abuse research assistant. Open Science Framework: Study Protocol.

Dallery, J., Riley, W.T., & **Nahum-Shani, I.** (2015). Research designs to develop and evaluate technology-based health behavior interventions. In L. Marsch, S. Lord, and J. Dallery (Eds). *Leveraging Technology to Transform Behavioral Healthcare*. Oxford University Press.

Nahum-Shani, I., Xi, L., Henderson, M.M., & Murphy, S.A. (2013). Innovative experimental design for developing effective technology-supported help-seeking interventions. In S.A. Karabenick and M. Puustinen (Eds). *Advances in Help Seeking Research and Applications: The Role of Information and Communication Technologies*.

Qian, M.,* **Nahum-Shani, I.**, Murphy, S. (2013). Dynamic treatment regimes. In X. Tu and W. Tang (Eds.). *Modern Clinical Trial Analysis*. Springer Science.

PROFESSIONAL CONFERENCES/PRESENTATIONS

*Student-mentored research

Nahum-Shani, I. (expert discussant). Investigating the promise of mHealth for complementary and integrative health approaches. (December 2020). Academic consortium grand rounds session at the International Congress on Integrative Medicine and Health. With Lanay Mudd, Pamela Jeter, Jennifer Huberty, Judith Gordon, and Christopher Cox (Virtual).

Spring, B., Pfammatter, A., Scanlan, L., McFadden, H., Marchese, S., Siddique, J., Hedeker, D., & **Nahum-Shani, I.** (November, 2020). How low can we go? Optimal first line and augmentation treatment tactics for obesity stepped care. Poster presented at the Obesity Society Annual Meeting; *Obesity*, 28, page 106.

Spring, B., Pfammatter, A., Marchese, S., Martindale, L., Battalio, M.F.S., Stump, T. Hedeker, D., & **Nahum-Shani, I.** (November, 2020). Do digital interventions overcome socio-demographic differences in weight loss initiation? Presentation at the Obesity Society Annual Meeting; *Obesity*, 28, page 15.

Nahum-Shani, I., Yap, J., & Walton, M. (September, 2020). Developing workflows and templates for reproducing results from mobile health (mHealth) trials. Michigan Institute for Data Science Reproducibility Day. University of Michigan (online).

Coughlin, L.N.,* **Nahum-Shani, I.**, Bonar, E.E., Philyaw-Kotov, M.L., Rabbi, M., Klasnja, P., Cunningham, R.M., Murphy, S.A. & Walton, M.A. (July, 2020). Toward a just-in-time adaptive intervention to reduce adolescent and young adult alcohol use: Testing approaches for identifying when to intervene. Society for Prevention Research (online).
<https://www.preventionresearch.org/2020-annual-meeting/>

- Lustria, M. L. A., Naar, S., Carpenter, S. M., & **Nahum-Shani, I.** (April, 2020). Design and development of a gamified mobile application to improve adherence to dietary self-monitoring. Paper presented at the Kentucky Conference on Health Communication (Virtual).
- Carpenter, S.M.,* Yap, J., Lam, C., Wetter, D., & **Nahum-Shani, I.** (February, 2020). Emotions impact engagement among smokers during a quit attempt. Poster at the Meeting of the Society for Personality and Social Psychology Intervention Science Preconference, New Orleans, LA.
- Wagner III, B.,* Barskey, M., **Nahum-Shani, I.**, & Park, S. Y. (November, 2019). ewrapper: Perceived Receptivity to Engagement Strategies in mHealth. In Conference Companion Publication of the 2019 on Computer Supported Cooperative Work and Social Computing (pp. 398-402).
- Coughlin, L. N.,* Bonar, E. E., Philyaw-Kotov, M. L., **Nahum-Shani, I.**, Rabbi, M., Klasnja, P., ... & Walton, M. A. (June, 2019). Predicting Alcohol and Marijuana Use in Adolescents and Emerging Adults with the Substance Abuse Research Assistant (SARA) Mobile App. In *Alcoholism-Clinical and Experimental Research* (43, pp. 234A-234A).
- Shaw, S.D.,* Yoon, C. Wagner, B., & **Nahum-Shani, I.** (March, 2019). Engagement in a digital world: An organizing framework for engagement strategies. Society for consumer psychology annual conference. Savannah, GA.
- Walton, A.,* Collins, L., Crosby, L., Klasnja, P., **Nahum-Shani, I.**, Rabbi, M., Walton, M., Murphy, S. (October, 2018). The Micro-randomized trial for developing mobile health interventions. Poster presentation at the Fifth Annual Mobile Data to Knowledge (MD2K) Meeting. Memphis, TN.
- Walton, A.,* Collins, L., Crosby, L., Klasnja, P., **Nahum-Shani, I.**, Rabbi, M., Walton, M., Murphy, S. (October, 2018). The Micro-randomized trial for developing mobile health interventions. Seminar at Penn State University Methodology Center, College of Health and Human Development. State College, PA.
- Walton, A.,* Collins, L., Crosby, L., Klasnja, P., **Nahum-Shani, I.**, Rabbi, M., Walton, M., Murphy, S. (November, 2018). The Micro-randomized trial for developing mobile health interventions. Poster presentation at the Technology in Psychiatry Summit. Boston, MA.
- Czyz, E. C.,* Fernandez K. C., **Nahum-Shani, I.**, & King, C. A. (April, 2018). Feasibility and acceptability of ecological momentary assessment (EMA) with suicidal adolescents following psychiatric hospitalization. Poster presentation at the 50th American Association of Suicidology Annual Conference. Phoenix, AZ.
- Tureen, T.,* Yap, J., Almirall, D., & **Nahum-Shani, I.** (April, 2018). R implementation for the analysis of zero-inflated count data from SMARTs: With application to substance use research. Michigan Student Symposium for Interdisciplinary Statistical Sciences (MISSISS). University of Michigan, Ann Arbor, MI.
- Seewald, N.J.,* **Nahum-Shani, I.**, McKay, J.R., Almirall, D. (April, 2018). Sample size considerations for the analysis of continuous repeated-measures outcomes in sequential multiple-

assignment randomized trials." Michigan Student Symposium for Interdisciplinary Statistical Sciences. Ann Arbor, MI.

Wagner, B.,* Shaw, S. D., Liu, E., Harrington, C., Naar, S., Abowd, G., Yoon, C., Kumar, S., Murphy, S., **Nahum-Shani, I.** (April, 2018). ewrapper: Operationalizing engagement strategies in mHealth. Poster session presented at the Michigan Student Symposium for Interdisciplinary Statistical Sciences, Ann Arbor, MI.

Bonar, E.E., Rabbi, M., Murphy, S.A., **Nahum-Shani, I.**, Cunningham, R.M., Philyaw-Kotov, M.L., Walton, M.A. (2018). Feasibility and acceptability of using a mobile phone app to assess substance use among adolescents and emerging adults [Abstract]. Alcoholism: Clinical and Experimental Research.

Czyz, E.C.,* King, C.A., & **Nahum-Shani, I.** (November, 2017). Examining feasibility and acceptability of ecological momentary assessment among adolescents at elevated suicide risk. Presentation at IASR/AFSP International Summit on Suicide Research. Henderson, NV.

Philyaw-Kotov, M.L.,* Rabbi, M., Murphy, S.A., Klasnja, P., Tewari, A., **Nahum-Shani, I.** & Bonar, E.E. (September, 2017). Feasibility and acceptability of using a mobile phone app to assess substance use among adolescents and emerging adults. SAVIR Conference: Innovations in Injury Prevention Science; Injury Prevention 2017; 23(Suppl 1):A1–A62. Ann Arbor, MI.

Czyz, E.C.,* King, C.A., & **Nahum-Shani, I.** (September, 2017). Examining feasibility and acceptability of ecological momentary assessment among adolescents at elevated suicide risk. Presentation at the Society for Advancement of Violence and Injury Research Conference. Ann Arbor, MI.

Nahum-Shani, I., Yap J.R.T., Almirall D., Freiheit, E., McKay, J. R., Lynch, K. G., Dziak, J.J. (August, 2017). Comparing adaptive interventions using longitudinal data methods. Paper Session: New Directions in General Psychology. The 125th Annual Convention of the American Psychological Association. Washington, D.C.

Nahum-Shani, I. (June, 2017). Common misconceptions regarding adaptive interventions and SMART studies. Workshop on Development of Adaptive Treatment Strategies in the Management of Drug Dependence: Lessons Learned from Clinical Trials Currently in the Field. College on Problems of Drug Dependence (CPDD) meeting. Montreal, Canada.

Nahum-Shani, I., Spring, B., & Murphy, S.A. (March, 2017). Stress-management just-in-time adaptive interventions: Opportunities and challenges. Symposium on Harnessing mHealth Technology to Advance Intervention Research on Stress, Addiction, and Mental Health Disorders. The 75th Annual Scientific Meeting of the American Psychosomatic Society, Sevilla, Spain.

Seewald, J.N.,* **Nahum-Shani, I.**, McKay, J., & Almirall, D. (March, 2017). Sample size considerations for the analysis of continuous repeated-measures outcomes in sequential multiple-assignment randomized trials. Michigan Student Symposium for Interdisciplinary Statistical

Sciences (MISSISS) (Best Statistics Graduate Student Poster). University of Michigan, Ann Arbor, MI.

Wagner, B.,* Rabbi, M.,* et al. (March, 2017). Engagement interventions in Mobile Health. Michigan Student Symposium for Interdisciplinary Statistical Sciences (MISSISS). University of Michigan, Ann Arbor, MI.

Sarker, H.,* Tyburski, M., Rahman, M. M., Hovsepian, K., Sharmin, M., Epstein, D. H., Preston, C.D., Furr-Holden, A., Milam, A., **Nahum-Shani, I.**, al’Absiet, M., & Kumar, S. (May, 2016). Finding significant stress episodes in a discontinuous time series of rapidly varying mobile sensor data. CHI Conference on Human Factors in Computing Systems, Santa Clara, California, USA.

Sharmin, M.,* Raij, A., Epstein, D., **Nahum-Shani, I.**, Beck, G., Vhaduri, S., Preston, K., & Kumar, S. (September, 2015). Visualization of time-series sensor data to inform the design of just-in-time adaptive stress interventions. ACM UbiComp, Osaka, Japan.

Nahum-Shani, I., & Bamberger, P.A. (August, 2015). A lingering ambiance: Pre-retirement work context and the impact of retirement on drinking behavior (best paper). Presented at the Academy of Management Meeting, Vancouver, Canada.

Dworak, P., **Nahum-Shani, I.**, & Chang, W. (May, 2015). Evaluating sequence of responsive design interventions on the Health and Retirement Study using the Sequential Multiple Assignment Randomized Trial (SMART). Paper presented at the American Association for Public Opinion Research; Hollywood, Florida.

Spring, B., Pellegrini, C.A., & **Nahum-Shani, I.** (November, 2014). How long does it take to identify non-responders to weight loss treatment. The Obesity Society’s Annual Meeting; Boston, Massachusetts.

Nahum-Shani, I., Bamberger, P.A., Bacharach, S.B., & Doveh, E. (May, 2013). Explaining the varying effects of retirement on Alcohol Consumption: The Role of unit-level drinking norms and stress climate. Presented as part of the symposium on work transitions and mental health throughout the work life course. Work, Stress, and Health Meeting: Protecting and Promoting Total Worker Health; Los Angeles, CA.

Nahum-Shani, I., & Henderson, M.M., Lim, S., & Vinokur, A.D. (August, 2013). Supervisor support: Does it buffer or exacerbate the adverse effect of supervisor undermining. Paper presented at the Academy of Management Annual Meeting; Orlando, FL.

Nahum-Shani, I., & Bamberger, P.A., Bacharach, S.B., & Doveh, E. (August, 2012). Explaining the varying effects of retirement on alcohol consumption: The Role of unit-level drinking norms and stress climate. Paper presented at the Academy of Management Annual Meeting; Boston, MA.

Dziak, J., **Nahum-Shani, I.**, & Collins, L. (May, 2012). Multilevel factorial experiments: Power and conceptual considerations. Paper presented at the Society for Prevention Research 20th Annual Meeting; Washington, DC.

- Nahum-Shani, I.** (August, 2011). Adaptive interventions utilizing mobile health technologies. Whitepaper accepted to the mHealth Evidence Workshop, sponsored by Robert Wood Johnson Foundation, the National Institutes of Health; Bethesda, MD.
- Nahum-Shani, I., & Somech, A.** (August, 2010). Leadership, OCB and individual differences: idiocentrism and allocentrism as moderators. Paper presented at the Academy of Management Annual Meeting; Montreal, Canada.
- Nahum-Shani, I., Qian, M., Pelham, W.E., Gnagy, B., Fabiano, G., Waxmonsky, J., Yu, J., & Murphy, S.A.** (May, 2010). Q-Learning: A Data analysis method for constructing adaptive interventions. Paper presented at the Society for Prevention Research Annual Meeting; Denver, CO.
- Nahum-Shani, I., & Bamberger, P.A.** (August, 2009). Work hours, retirement and supportive relations among older adults. Paper presented at the Academy of Management Annual Meeting; Chicago, IL.
- Nahum-Shani, I.** (August, 2008). Dissertation Award winners session: Invited talk at the HR Doctoral Consortium, Academy of Management Annual Meeting; Anaheim, CA.
- Nahum-Shani, I.** (August, 2008). Hours worked and their positioning during the day: Effects on support availability from work, family and non-work friends. Invited talk, HR Dissertation award winners' paper session. Academy of Management Annual Meeting; Anaheim, CA.
- Nahum-Shani, I., & Bamberger, P.A.** (August, 2008). Temporal workplace demands and the buffering effect of social support: The Conditioning role of perceived reciprocity patterns. Paper presented at the Academy of Management Annual Meeting; Anaheim, CA.
- Bacharach, S.B., Bamberger, P.A., & **Nahum-Shani, I.** (August, 2007). Hours, shifts and supportive relations: Resource mobilization and the link between temporal workplace demands and social support. Paper presented at the Academy of Management Annual Meeting; Philadelphia, PA.
- Nahum-Shani, I., Doveh, E., Bamberger, P.A., & Bacharach, S.B.** (January, 2007). Moderated mediation in multilevel models: The case of involvement in traumatic events. Poster presentation at the 4th conference of the EMR - International Biometric Society; Israel.

INVITED PRESENTATIONS

Multimodal Adaptive Interventions (MADIs). Adaptive Interventions Workshop: Methods for Adaptive and Personalizing Prevention, Treatment, and Recovery Services for SUD. Addiction Health Services Research Conference. October 2021 (Virtual).

Multi-Component Interventions: An Organizing Framework for Selecting an Experimental Design. NIH Workshop on Methodological Approaches for Whole Person Research. September, 2021(Virtual)

Introduction to Just-In-Time Adaptive interventions. PhD-level intervention class. Silver School of Social Work. NYU. May, 2021 (Virtual).

Mobile Assistance for Regulating Smoking (MARS). mPower: NIH and NSF staff meeting on mobile health. March, 2021 (Virtual).

Panel on Measurement Advances for Mechanisms of Behavior Change (co-chair). Ten Years of the Science of Behavior Change Common Fund Program Celebrating Accomplishments and Looking to the Future. NIH Science of Behavior Change. February, 2021 (Virtual).

Just-In-Time Adaptive Interventions in Cancer Control. NCI interdisciplinary T32 training program in cancer care delivery research at the University of Michigan. February, 2021 (Virtual).

Experimental Designs for Developing Multi-Component Interventions: On Factorial Designs, SMARTs and MRTs. Michigan Integrated Center for Health Analytics and Medical Prediction. December, 2020 (Virtual).

Experimental Designs for Developing Multi Component Interventions: On Factorial Designs, SMARTs and MRTs. Department of Psychology, Princeton; November, 2020 (Virtual).

MARS: Mobile Assistance for Regulating Smoking. NIH/OBSSR Intensive Longitudinal Health Behavior Network (ILHBN) Annual Meeting; November, 2020 (Virtual).

Insights from the Engagement Working Group. (with Donna Spruijt-Metz). NIH/OBSSR Intensive Longitudinal Health Behavior Network (ILHBN) Annual Meeting; November, 2020 (Virtual).

Experimental Designs for Developing Technology-Based Interventions: On Factorial Designs, SMARTs and MRTs. International Society for Traumatic Stress Studies. November, 2020 (Virtual).

Translating Theoretically-Grounded Engagement Strategies into mHealth Setting: The Substance Abuse Research Assistant (SARA) Study. Maintaining Engagement with mHealth Technology: A Transdisciplinary Virtual Seminar; University of Southern California. October 2020 (Virtual).

Experimental Designs for Optimizing mHealth Interventions: On Factorial Designs, SMARTs and MRTs. Department of Psychiatry and Behavioral Sciences. University of Washington. Seattle, WA; December 2019.

Engagement in Intensive Longitudinal Data Collection. Panel on Intensive Longitudinal Assessment of Health and Behavior. Technology in Psychiatry Summit. Harvard University. Boston, MA; October 2019.

Engagement in Intensive Longitudinal Data Collection. NIH/OBSSR Intensive Longitudinal Health Behavior Network Annual Meeting. Harvard University. Boston, MA; October 2019.

Mentoring Graduate Students: Tips, Best Practices, and Life-Changing Stories from the Experts. Professional Development Workshop. Academy of Management Annual Meeting. Boston, MA; August 2019.

Experimental Designs for Constructing mHealth Interventions. mHealth Training Institute, University of California, Los Angeles; July 2019.

Just-In-Time Adaptive Interventions: Scientific Motivation and Key Components. Invited Symposia on mHealth in Action. Society for Prevention Research Annual Meeting. San Francisco, CA; May 2019.

Engagement and Health Behavior Change: The Role of Adaptive and Just-In-Time Adaptive Interventions. Clinical Science Forum: New Developments in the Clinical Science of Behavior Change. Association for Psychological Science Annual Convention. Washington, DC; May 2019.

Engagement in Mobile Health Studies (with Donna Spruijt-Metz and David Wetter). The Intensive Longitudinal Health Behavior Network (ILHBN). Online; February 2019.

From Adaptive to Just-In-Time Adaptive Interventions in Mobile Health. Department of Psychology, University of Michigan; February 2019.

From Adaptive to Just-In-Time Adaptive Interventions in Mobile Health. Department of Psychology, University of Zurich; December 2018.

Novel Use of mHealth Data to Identify States of Vulnerability and Opportunity to JITAI. NIH Intensive Longitudinal Health Behaviors Network Annual Meeting. Bethesda, MD; October 2018.

Experimental Designs for Building mHealth Interventions: Factorial Designs, SMARTs and MRTs. mHealth Training Institute, University of California, Los Angeles; August 2018.

Addressing Human Variability: Adaptive and Just-In-Time Adaptive Interventions. The Human Variability Project Workshop. Army Research Lab. Baltimore, MD; July 2018.

Micro-Randomized Trial to Investigate the Effects of Just-In-Time Prompts and Message Framing. The Micro-Randomized Trial Design for developing adaptive mobile health; invited session at the Society for Clinical Trials meeting. Portland, OR; May 2018.

From Adaptive to Just-In-Time Adaptive Interventions in Mobile Health. Huntsman Cancer Institute, University of Utah. Salt Lake City, Utah; May 2018.

Lightning Rounds on Just-In-Time Adaptive Interventions. Society for Behavioral Medicine Annual Meeting. New Orleans, LA; April 2018.

From Adaptive Interventions to Just-in-Time Adaptive Interventions (Dempsey [Speaker] & Nahum-Shani). Pre-Conference workshop on "The Nuts and Bolts of Behavioral Intervention

- Development” at the Society for Behavioral Medicine Annual Meeting, New Orleans, LA; April 2018.
- Novel Experimental Approaches to Designing Effective Multi-Component Interventions. Invited Pre-Conference workshop at the Society for Behavioral Medicine Annual Meeting; New Orleans, LA; April 2018.
- Using Digital Data to Promote Behavior Change. Symposium on Consumer Goods as Agents of Sustainable Health. Proctor and Gamble Mason Research Center. Cincinnati, OH; March, 2018.
- Experimental Designs for Multi-Components Behavioral Intervention Development. Implementation Research Group; The Center for Evaluation and Implementation Resources. US Department of Veterans Affairs; Online Session; January, 2018.
- From Adaptive to Just-In-Time Adaptive Interventions in Mobile Health. Michigan Program in Survey Methodology (MPSM) Sponsors Briefing. University of Michigan. Ann Arbor, MI; October 2017.
- Novel longitudinal methods for SMART studies of drug use and HIV. The Methodology Center Annual Retreat . Penn State University. State College, PA; October, 2017.
- From Adaptive to Just-In-Time Adaptive Interventions in Mobile Health: Conceptual and Methodological Considerations. Department of Psychiatry and Behavioral Sciences, University of Washington. Seattle, WA; September, 2017.
- Experimental Designs for Building mHealth Interventions: Factorial Designs, SMARTs and MRTs. mHealth Training Institute, University of California, Los Angeles; August 2017.
- Experimental Designs for Constructing Multi-Component Behavioral Interventions. NIA/NIH Workshop on Innovating the Next Generation of Dementia and Alzheimer’s Disease Care Interventions: Addressing the needs of caregivers, care providers, and persons living with dementia. National Institutes of Health, Rockville, MD; July 2017.
- From Adaptive to Just-In-Time Adaptive Interventions in Mobile Health: Conceptual and Methodological Considerations. Department of Biomedical Data Science, Geisel School of Medicine, Dartmouth College. Lebanon, NH; July 2017.
- Introduction to Adaptive Interventions and SMART studies. Novel Experimental Approaches to Designing Effective Multi-component Interventions. Invited Workshop; The Chicago Chapter of the American Statistical Association (ASA). Northwestern University, Chicago, IL; May, 2017.
- From Adaptive to Just-In-Time Adaptive Interventions in Mobile Health: Conceptual and Methodological Considerations. Center for Drug Use and HIV Research (CDUHR) MHealth Mini Conference. NYU, New York, NY; April 2017.

From Adaptive to Just-In-Time Adaptive Interventions in Mobile Health. Department of Psychiatry & Neurobehavioral Sciences, School of Medicine, University of Virginia, Charlottesville, VA; December 2016.

Introduction to Adaptive Interventions. IES Principal Investigator's Conference. Washington, DC; December 2016.

From Adaptive to Just-In-Time Adaptive Interventions. Institute for Translational Research in Children's Mental Health 2nd Annual Symposium: Building a Science of Personalized Intervention for Children's Mental Health. University of Minnesota, Minneapolis, MN; October 2016.

Experimental Designs and Data Analytic Methods for Building mHealth Interventions. mHealth Training Institute, University of California, Los Angeles; August 2016.

Experimental Designs for Building mHealth Interventions. NIH Global mHealth Research Training Institute. Bethesda, MD; June 2016.

Just in Time Adaptive Interventions: Scientific Motivation and Key Components. Invited talk at the Cross-Cutting Theme Program: Breaking Free—Intersecting Perspectives on the Science of Behavior Change. Association for Psychological Science Convention, Chicago, IL; May 2016.

From Adaptive to Just-In-Time Adaptive Interventions. Workshop on Methodological Approaches to Designing Adaptive Interventions in Mobile Health; Association for Psychological Science Convention, Chicago, IL; May 2016.

Building Just-In-Time Adaptive Interventions in Mobile Health: The Role of Micro-Randomized Trials (Organizer and Speaker). Pre-Conference workshop at the Society for Behavioral Medicine Annual Meeting, Washington, DC; March 2016.

From Adaptive Interventions to Just-in-Time Adaptive Interventions (Dempsey [Speaker] & Nahum-Shani). Pre-Conference workshop on 'The Nuts and Bolts of Behavioral Intervention Development' at the Society for Behavioral Medicine Annual Meeting, Washington, DC; March 2016.

Adaptive Interventions for Health Behavior Change: What, Why and How? Center for Economic and Social Research, University of Southern California. Los Angeles, CA; Feb, 2016.

On Adaptive Interventions and SMARTs. School of Nursing Methodology Series Workshop, University of Michigan, Ann Arbor, MI; Feb 2016.

Adaptive Interventions for Health Behavior Change: What, Why and How? Department of Psychology, Rice University. Huston, TX; December, 2015.

Adaptive Interventions in Educational Research. IES Principal Investigator's Conference. Washington, DC; December 2015.

Just In Time Adaptive Interventions for Promoting Mental Health Among College Students (White Paper). NSF Workshop on College Student Health. Chicago, IL; July 2015.

Introduction to Adaptive Intervention and Associated Methodologies. IES Technical Working Group Meeting on SMARTs in Education Research. Washington DC; July 2015.

Getting SMART: Experimental Design Methods for Developing Adaptive Interventions. Pre-conference workshop; annual Meeting of the Society for Prevention Research, Washington, DC, May 2015.

Getting SMART: Experimental Design and Analysis Methods for Developing Adaptive Interventions; 1-Day Workshop at the UCSF Division of Prevention Sciences & Department of Epidemiology & Biostatistics, University of California, San Francisco; May 2015.

mHealth Research Methodology. mHealth Training / NIH mHealth Summit 2014. Washington DC; December 2014.

On SMART and Factorial Designs: Application to mHealth Research. mHealth evidence wireless workshop; Wireless Health 2014. Bethesda, MD; October 2014.

On SMART and Factorial Designs: Application to mHealth Research. mHealth evidence NIH/OBSSR Panel. Bethesda, MD; October 2014.

Experimental Designs for Developing mHealth Interventions. NIH/OBSSR online mHealth training. July 2014.

Pre-Meeting Conference Workshop on the Design and Conduct of Sequential Multiple Assignment Randomized Trials. Society for Clinical Trials Meeting. Philadelphia, PA; May 2014.

From SMART to Just In Time Adaptive Interventions. NIH Workshop on Innovative Study Designs and Methods for Developing, Testing and Implementing Behavioral Interventions. Bethesda, MD, April 2014.

mHealth Research Methods and Design. Instructor in NIH/OBSSR brief mHealth training (online). Bethesda, MD, March 2013.

mHealth Research Methods and Design. Instructor in NIH/OBSSR mHealth training. Bethesda, MD, Dec 2013.

On MOST, SMART and Factorial Designs. Center for Technology and Behavioral Health, Department of Psychiatry, Geisel School of Medicine at Dartmouth, Dartmouth College, November 2013.

On MOST, SMART and Factorial Designs. The National Institute on Drug Abuse's Division of Clinical Neuroscience & Behavioral Research (DCNBR): Meeting on Overcoming Barriers and Making Adolescent Drug Abuse Treatment More Community, Bethesda, MD, June 2013.

Being SMART about adapting interventions: An introduction to Adaptive Interventions and SMART designs; Pre-conference workshop on Tobacco Use Treatment Development: Challenges,

Opportunities, & New Methods, Society for Research on Nicotine and Tobacco's 19th Annual Meeting, March, 2013.

Designing work-based brief interventions for at-risk drinking: The SMART way. Research project presented at the Stanford Prevention Research Center, Stanford University School of Medicine, Stanford, CA; February 2013.

Supervisor support: Does it buffer or exacerbate the adverse effects of supervisor undermining? Seminar presented at the Department of Psychology, Virginia Tech; January, 2013.

Optimizing technology-based interventions: The SMART experimental approach. Seminar presented at the Stanford Prevention Research Center, Stanford University School of Medicine, Stanford, CA; January 2013.

Q-learning: A data analysis method for developing behavioral interventions. Seminar presented at the Department of Psychology, University of North Carolina at Chapel Hill, Chapel Hill, NC; Dec, 2012.

MHealth research and experimental designs: Beyond randomized control trials. Training session at the NIH/Mhealth 2012 training workshop, Washington DC; November 2012.

Supervisor support: Does it buffer or exacerbate the adverse effects of supervisor undermining? Paper presented at Ross School of Business, University of Michigan, Ann Arbor MI; November 2012.

Experimental Designs for Intervention Development. National Strategic Summit on creating a roadmap for physical activity, lifestyle and comparative effectiveness research. Arizona State University, Phoenix, AZ, October 2012.

Experimental Designs for Intervention Development. NIH SOBC Revisiting Pasteur's Quadrant: Use-Inspired Basic Research, Bethesda, MD, October 2012.

Supervisor Support: Does it buffer or exacerbate the adverse effect of supervisor undermining. Paper presented at the Department of Psychology, area of Personality & Social Context seminar, University of Michigan, April 2012.

FORMAL TEACHING/WORKSHOPS

- 2022 ***Introduction to Adaptive Interventions and SMARTs***
Workshop to T32 trainees in cancer research and addiction,
at the University of Utah and the University of Michigan.
Online, January 2022
- 2021 ***Getting SMART about Adaptive Interventions in Education***
Workshop at the Data Science for Dynamic Decision-Making Center (d3c)
University of Michigan.
Online, November 2021

- 2019 ***Experimental Designs for Mobile Health (mHealth) Interventions***
Workshop at the College of Nursing and Health Innovation
Arizona State University, February 2019
- Introduction to Adaptive Interventions and SMARTs***
Workshop at the College of Nursing
University of South Carolina, November 2019
- Getting SMART about Adaptive Interventions in Education***
Workshop at the Data Science for Dynamic Decision-Making Lab (d3lab)
University of Michigan, March 2019
- 2018 ***Introduction to Adaptive and Just-In-Time Adaptive Interventions in Mobile Health: Conceptual and Methodological Considerations.***
Workshop at the Department of Psychology
University of Zurich, December 2018
- 2014 ***Summer Institute on Innovative Methods.***
Experimental Design and Analysis Methods for Developing Adaptive Interventions:
Getting SMART
Funded by NIH/NIDA
University of Michigan, June 2014
- 2013 ***Quantitative Methodology Program Seminar.***
Survey Research Center, Institute for Social Research
University of Michigan, 2013
- Methods for Just In Time Adaptive Interventions.***
Workshop funded by SRC/ISR, NIH/NIDA, Mcubed
Link: <https://community.isr.umich.edu/public/jitai/Workshop.aspx>
University of Michigan, August 2013
- 2011-2012 ***Advanced Regression Analysis workshop.***
The international summer workshop series in advanced research methods
Tel Aviv University, Israel
- 2008 ***Multivariate Analysis Course.***
Faculty Supervisor: Prof. Ayala Cohen
Department of Industrial Engineering and Management
Technion, Israel Institute of Technology
- 2007 ***Statistics for Managers.***
Department of Industrial Engineering and Management
Technion, Israel Institute of Technology
- 2006 ***Leadership and Organizations,*** Guest Instructor
School of Education, Haifa University, Israel

SERVICE

- Editorial board: - Academy of Management Discoveries (2015-Present)
- Advisory Board: - Center for Technology and Behavioral Health; Dartmouth (2015-present)
- DSMB: Enhancing Engagement with Digital Mental Health (R01 MH125179; 2021)
- Methodology advisor, NIH/FNIH initiative: Developing Evidence-Based Music Therapies for Brain Disorders of Aging (2021)
- Leadership: - Chair, NIH/OBSSR Intensive Longitudinal Health Behavior Network (2020-2021)
- Co-Lead, Institute for Social Research, SRC's COVID-19 Task Force (2021-2022)
- Guest Editor, Frontiers in Digital Health, Research Topic: Digital Technology for Tobacco Control (2021-2022)
- Reviewer (Journals): - Annals of Behavioral Medicine
- Biometrics
- Clinical Trials
- Contemporary Clinical Trials
- Clinical Psychology: Science and Practice
- Human Relations
- Industrial Relations
- Journal of Applied Psychology
- Journal of Health and Social Behavior
- Journal of Medical Internet Research
- Journal of Occupational Health Psychology
- Journal of Organizational Behavior
- Journal of Organizational and Occupational Psychology
- Journal of the American Statistical Association
- Perspectives in Psychological Science
- Psychology of Addictive Behaviors
- Psychological Methods
- Reviewer (Grant Applications): - National Institutes of Health: NIDA Avant-Garde Award Program for HIV/AIDS and Drug Use Research (2018)
- ETH Zurich Research Commission: Mobile Digital Health (2019)
- National Institutes of Health: Risk, Prevention and Health Behavior Integrated Review Group (2020)
- Center for Technology and Behavioral Health (CTBH); Dartmouth College (2017-2020)
- NIH/NIMH Review Panel: Clinical Trials to Test the Effectiveness of Treatment, Preventive, and Services Interventions (2021)
- NIH/NHLBI Review Panel: Early Intervention to Promote Cardiovascular Health of Mothers and Children (ENRICH) Multisite Resource and Coordinating Center (2021)
- Consulting/
Mentorship: - NIH/NIMH R01 MH113722 (PI: Meffert),
- NIH/NINR R01 NR017635 (PI: Buchholz)
- NIH/NIC R01 CA225877 (PIs: Cadmusbertram, Phillips)
- NIH/NIAAA K01 AA024500 (PI: Tiura)

- NIH/NIMH K23 MH113776 (PI: Czyz)
- NIH/NIDA R34 DA046367 (PI: Carrico)
- NIH/NHLBI R01 HL132578 (PI: Levine)
- NIH/NIMH K23 MH122504 (PI: Buck)
- NIH/NIAAA K23 AA028232 (PI: Coughlin)
- NIH/NIDA K23 DA048181 (PI: Watson)
- NIH/NIDDK R01 DK124428 (PI: Stanger)
- NIH/NCI K99 CA252604 (PI: Potter)