

Sijing (S.J.) Shao
390 Corbett Family Hall
Department of Psychology
Notre Dame, IN 46556
sshao2@nd.edu

EDUCATION

Expected 2024	Ph.D. in Quantitative Psychology University of Notre Dame, Department of Psychology
May 2014	M.S. in Mathematics New York University, The Courant Institute of Mathematical Sciences
May 2012	B.S. in Statistics and Mathematics Iowa State University, College of Arts and Science

PUBLICATIONS (In chronological order)

Peer Reviewed Manuscripts

Shao, S., Canner, J., Everett, R. A., Bekele-Maxwell, K., Kuerbis, A., Stephenson, L., Menda, J., Morgenstern, J., & Banks, H.T. (2023) A Comparison of Mathematical and Statistical Modeling with Longitudinal Data: An Application to Ecological Momentary Assessment of Behavior Change in Individuals with Alcohol Use Disorder. *Bulletin of Mathematical Biology*

Shao, S. (2022) A Tutorial on Bayesian Analysis of Count Data Using JAGS. *Journal of Behavioral Data Science*.

Burke, T., **Shao, S.**, Jacobucci, R., Kautz, M., Alloy, L., Ammerman, B (2022). Examining momentary associations between behavioral approach system indices and nonsuicidal self-injury urges. *Journal of Affective Disorders*.

Morgenstern, J., Kuerbis, A., Shao, S., Padovano, H. T., Levak, S., Vadhan, N. P., & Lynch, K. G. (2021). An efficacy trial of adaptive interventions for alcohol use disorder. *Journal of Substance Abuse Treatment*

Kuerbis, A., **Shao, S.**, Treloar Padovano, H., Jadanova, A., Selva Kumar, D., Vitale, R., Nitzburg, G., Vadhan, N., & Morgenstern, J. (2020). Context and craving among problem drinkers attempting to moderate their drinking: Are all contexts created equal? *Experimental and clinical psychopharmacology*.

Kuerbis, A., Lynch, K., **Shao, S.**, & Morgenstern, J. (2019). Examining Motivational Interviewing's effect on confidence and commitment using daily data. *Drug and Alcohol Dependence*.

- Kuerbis, A., Treloar Padovano, H., **Shao, S.**, Houser, J., Muench, F., & Morgenstern, J. (2018). Comparing daily drivers of problem drinking among older and younger adults: An electronic daily diary study using smartphones. *Drug and Alcohol Dependence*, 183, 240-246.
- Kuerbis, A., Houser, J., Levak, S., **Shao, S.** & Morgenstern, J. (2018). Exploration of treatment matching to problem drinker characteristics with motivational interviewing and non-directive client centered psychotherapy for problem drinkers. *Journal of Substance Abuse Treatment*, 86, 9-16.
- Banks, H.T., Bekele-Maxwell, K., Everett, R.A., Stephenson, L., **Shao, S.**, & Morgenstern, J. (2017). Dynamic modeling of problem drinkers undergoing behavioral treatment. *Bulletin of Mathematical Biology*, 79, e1254. <https://doi.org/10.1007/s11538-017-0282-5>
- Bekele-Maxwell, K., Everett, R. A., **Shao, S.**, Kuerbis, A., Stephenson, L., Banks, H. T., & Morgenstern, J. (2017). Dynamical systems modeling to identify a cohort of problem drinkers with similar mechanisms of behavior change. *Journal for Person-Oriented Research*, 3(2), 100-118.
- Morgenstern, J., Kuerbis, A., Houser, J., **Shao, S.**, & McKay, J. (2017). Dismantling Motivational Interviewing: Effects on initiation of behavior change among problem drinkers seeking treatment. *Psychology of Addictive Behaviors*, 31(7), 751-762.
- Muench, F., van Stolk-Cooke, K., Kuerbis, A., Stadler, G., Baumeister, A., **Shao, S.**, McKay, J., & Morgenstern, J. (2017). A randomized controlled pilot trial of different mobile messaging interventions for problem drinking. *PLOS One*, 12(2): e0167900.
- Kuerbis, A., Mereish, E., Hayes, M., Davis, C. M., **Shao, S.**, & Morgenstern, J. (2017). Testing cross-sectional and prospective mediators of internalized heterosexism on heavy drinking, alcohol problems, and psychological distress among heavy drinking men who have sex with men. *Journal of Studies on Alcohol and Drugs*, 78(1), 113-123.
- Morgenstern, J., Kuerbis, A., Houser, J., Muench, F. J., **Shao, S.**, & Treloar Padovano, H. (2016). Within-person associations between daily motivation and self-efficacy and drinking among problem drinkers in treatment. *Psychology of Addictive Behaviors*, 30(6), 630-638.
- Muench, F. M., Hayes, M., Kuerbis, A., & **Shao, S.** (2015). The independent relationship between trouble controlling Facebook use, time spent on the site and distress. *Journal of Behavioral Addictions*, 4(3), 163-169.
- Ayers, K., Garcia, X., Kunze, J., Rudelius, T., Sanchez, A., **Shao, S.**, & Eperanza, E. (2012). Limit and morse sets for deterministic hybrid Systems. *Qualitative Theory of Dynamical Systems*, 12(2), 335-360.

Garcia, X., Kunze, J., Rudelius, T., Sanchez, A., **Shao, S.**, Eperanza, E., & Vidden, C (2011). Invariant measures for hybrid stochastic systems. *Involve: A Journal of Mathematics*, 7 (4), 565- 583.

Other Publications

Jacobucci, R., **Shao, S.**, & Hattori, M. (2020). On the integration of machine learning and psychometrics. *The Score (APA Div. 5 Newsletter)*.

PRESENTATIONS (In chronological order)

Shao, S., Hoegler, S., Xu, Z. (2023, July). When does an intervention start to be effective? A time-specific indirect effect approach to intervention evaluations. Accepted as oral presentation at the International Meeting of the Psychometric Society, College Park, MD

Shao, S., Xu, Z., McClure, K., Zhang, Z. (2023, July). Zero inflation in longitudinal data: why is it important and how should we deal with it? Accepted as oral presentation at the International Meeting of the Psychometric Society, College Park, MD

Shao, S., Xu, Z., Jacobucci, R. (2023, July). Sample Planning for Detecting Cross-lag effect in Longitudinal Studies with Ordinal Outcomes. Accepted as oral presentation at the International Meeting of the Psychometric Society, College Park, MD

Carney, J. R., Miller-Graff, L. E., & Shao, S. (2023, November). Social determinants of posttraumatic stress in pregnant women experiencing partner violence in Peru. In S. F. Stein (Chair) Social Determinant of Health in Intimate Partner Violence Victimization. Symposium submitted to the International Society for Traumatic Stress Studies 39th Annual Meeting, Los Angeles, CA.

Ammerman, B.A., **Shao, S.**, & Jacobucci, R. (2023, March). *Daily smartphone use and suicidal ideation: A means for social connection*. In B.A. Ammerman (Chair), *Utilizing intensive data collection methodologies to examine the near-term relationship between smartphone use and suicide risk*. Symposium submitted to the 57th Annual Convention for the Association for Behavioral and Cognitive Therapies, Seattle, Washington.

Shao, S., Jacobucci, R., (2022, July). Examining the Power for Longitudinal Models with Ordinal Outcomes. Accepted as oral presentation at the International Meeting of the Psychometric Society, Bologna, Italy.

Shao, S., Jacobucci, A., (2021, July). Dynamic Poisson Factor Analysis: A Hierarchical Bayesian Approach with Intensive Text Data. Invited symposium at the International Meeting of the Psychometric Society. Won the best student presentation award sponsored by Duolingo.

Shao, S., Kuerbis, A., & Morgenstern, J. (2018, June). Examining factors associated with missing data in ecological momentary assessment with alcohol treatment studies. Poster

presentation at the Annual Conference for the Research Society on Alcoholism, San Diego, CA.

Shao, S., Kuerbis, A., & Morgenstern, J. (2018, June). Examining factors associated with missing data in ecological momentary assessment with alcohol treatment studies. Poster presentation at the Annual Conference for the Association for Psychological Science, San Francisco, CA.

Banks, H.T., Bekele-Maxwell, K., Everett, R.A., **Shao, S.**, & Morgenstern, J. (2016, August). Dynamic Modeling of Problem Drinkers Undergoing Behavioral Treatment. Presented at the Dynamic Systems Modeling Expert Meeting at European Health Psychology and British Psychological Society Division of Health Psychology Conference, King's College, Aberdeen, Scotland.

Garcia, X., Kunze, J., Rudelius, T., Sanchez, A., **Shao, S.**, Eperanza, E., & Vidden, C. (2012). Invariant Measures for Hybrid Stochastic Systems, Poster presented at the Joint Mathematics Meetings Undergraduate Poster Session, Boston, MA.

Ayers, K., Garcia, X., Kunze, J., Rudelius, T., Sanchez, A., **Shao, S.**, & Eperanza, E. (2012). Limit and Morse Sets for Deterministic Hybrid Systems. Poster presented at the Joint Mathematics Meetings Undergraduate Poster Session, Boston, MA.

Garcia, X., Kunze, J., Rudelius, T., Sanchez, A., **Shao, S.**, Eperanza, E., & Vidden, C. (2011). Invariant Measures for Hybrid Stochastic Systems. Presented at Iowa Summer Research Symposium, Iowa City, IA.

TEACHING EXPERIENCE

August 2020 –Dec 2022

Teaching Assistant

University of Notre Dame

- Won the Psychology Department's Excellence in Graduate Student Teaching Award of year 2022
- Co-taught weekly labs for Statistics for Behavioral Science
- Developed and implemented laboratory exercises for 30 undergraduate students
- Identified gaps in student learning by discussions and assignments
- Provided structural feedback and assessments using exams and assignments, and worked towards creating self-motivated, independent students

Jan. –May 2014

Adjunct Instructor

New York University

- Taught weekly recitations for Great Idea in Mathematics
- Worked with students to identify problem areas and misconceptions about the course material
- Provided frequent feedback, and work towards creating self-motivated, independent students

- Graded weekly quiz and homework

August 2011 – May 2012

Help Room Tutor

Iowa State University

- Assisted students with assignments and questions in Calculus I, II, III, Linear Algebra, Differential Equations, JMP and SPSS.
- Assisted students on data input, locate analyses and options JMP and SPSS menus.
- Explained statistical theories along with statistical model output to students.

August 2008 – May 2012

Academic Tutor

Iowa State University

- Conducted one-on-one tutoring on Calculus, Accounting and Microeconomics
- Made weekly study plans for students

Service and Community Outreach

Aug. 2020 – Aug. 2021

Diversity, Equity, and Inclusion Committee

University of Notre Dame

June – July 2012

Translator and Class Coordinator

Day Break Asia

May 2012

Educare Volunteer

AVIVA in South Africa

Sept. 2008 – Feb. 2009

Student Fund Raiser

Iowa State University

HONORS / SCHOLARSHIPS

2021

Duolingo Award for the best student presentation at International Meeting of the Psychometric Society

2012

Magna cum laude

2008 – 2012

Dean's list

2010

Dio Holl Award

2010

International Student Scholarship

2010

Dio Holl Award

SKILLS

R, SAS, SPSS, Matlab, Python, LaTeX, Endnote, Excel

LANGUAGES

English

Mandarin