# Sijing (SJ) Shao

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#### **EDUCATION**

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

#### **PUBLICATIONS**

### **Manuscripts Under Review**

**Shao, S.**, Xu, Z., Liu, Q., McClure, K., Jacobucci, R., Maxwell, S. E., Zhang, Z. (Under Review). Zero inflation in intensive longitudinal data: why is it important and how should we deal with it? *Psychological Methods*.

Ammerman, B., **Shao, S.**, Jacobucci, R., Knorr, A., O'Loughlin, C. (Under Review). A Pilot Study Examining the Link Between Smartphone Use and Suicidal Ideation at the Daily Level. *Suicide and Life-Threatening Behavior*.

### **Manuscripts In Preparation**

**Shao, S.**, Qu, W., Zhang, Z., Liu, Q. ZIP vs. Hurdle: Tackling Zero Inflation in Ecological Momentary Assessment Research.

**Shao, S.**, Kuerbis, A., Jacobucci, R., Wilcox, K.T., Morgenstern, J. Understanding the Autoregressive Process of Drinking among Individuals with Alcohol Use Disorder.

**Shao, S.**, Hoegler, S., Kuerbis, A., Morgenstern, J. Modeling Intervention-Driven Time-Varying Effects Using Intensive Longitudinal Data: Applying Dynamic Structural Equation Modeling to Ecological Momentary Assessments of Behavior Change in Individuals with Alcohol Use Disorder.

### **Peer Reviewed Manuscripts**

Shao, S., Xu, Z., Qu, W., Jacobucci, R. (Forthcoming). Sample Size Planning for Detecting Cross-lag Effects in Longitudinal Studies with Ordinal Outcomes. *Fudan Journal of the Humanities and Social Sciences*. (Invited submission).

- **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.
  - 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., Baumel, 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.

#### Other Publications

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

## **PRESENTATIONS**

- Shao, S., Jacobucci, R. (2023, October). ZIP vs. Hurdle: Tackling Zero Inflation in Ecological Momentary Assessment Research. Accepted. Society of Multivariate Experimental Psychology, Iowa City, IA.
  - **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? Presented 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. Presented at the International Meeting of the Psychometric Society, College Park, MD.
  - **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.

- 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 57<sup>th</sup> Annual Convention for the Association for Behavioral and Cognitive Therapies, Seattle, WA
- 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. Remote Conference.
- 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, January). 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, January). Limit and Morse Sets for Deterministic Hybrid Systems. Poster presented at the Joint Mathematics Meetings Undergraduate Poster Session, Boston, MA.

# TEACHING EXPERIENCE

Aug. 2020—Dec. 2022	<b>Lab Instructor</b> , Experimental Psychology. <i>University of Notre Dame</i>
Jan.—May 2014	Adjunct Instructor, Great Idea in Mathematics.  New York University
Aug. 2011—May 2012	Help Room Tutor. Iowa State University
Aug. 2008—May 2012	Academic Tutor Iowa State University

# SERVICES AND COMMUNITY OUTREACH

Aug. 2021—Aug. 2022	Graduate Advisory Committee. University of Notre Dame
Aug. 2020—Aug. 2021	<b>Diversity, Equity, and Inclusion Committee.</b> <i>University of Notre Dame</i>
June—July 2012	Chinese 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 AND SCHOLARSHIPS

2023	Student Travel Award at Society of Multivariate Experimental Psychology.
2022	Outstanding Graduate Student Teaching Award.
2021	Duolingo Award for the best student presentation at International Meeting of the Psychometric Society.
2010	Dio Holl Award.
2010	International Student Scholarship.

#### **REFERENCES**

# Ross Jacobucci, Ph.D.

Assistant Professor Department of Psychology University of Notre Dame (574) 631-2589 rjacobuc@nd.edu

### Zhiyong (Johnny) Zhang, Ph.D.

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