

## **CURRICULUM VITAE**

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## **ACTIVE RESEARCH INTERESTS**

- Addiction:
  - Development of substance use problems during adolescence; specifically, the role of affect regulation and internalizing disorders in the development of addiction
  - Predictors of relapse during treatment
  - Intergenerational processes (effects of parental substance use on children and effects of children on maternal substance use)
  - Understanding comorbidities between substance use and other addiction-like behaviors
- Quantitative Methodology:
  - The application and development of statistical models that sufficiently capture complexities of observational data, especially developmental and longitudinal data, to test and advance theory
  - Multilevel models, structural equation models, and mixture models

## **EDUCATION**

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|---------------|---|
| 5/2011-7/2013 | Postdoctoral Associate, Transdisciplinary Prevention Research Center and Center for Developmental Epidemiology, Duke University, Durham, NC   |
| 5/2008-5/2011 | Ph.D., Quantitative Psychology, University of North Carolina at Chapel Hill<br>Dissertation Title: <i>Evaluating shared-parameter mixture models for analyzing change in the presence of non-randomly missing data.</i> |
| 8/2006-5/2008 | M.A., Quantitative Psychology, University of North Carolina at Chapel Hill<br>Thesis Title: <i>An empirical evaluation of the disaggregated effects of educational diversity in a national sample of law schools.</i>   |
| 8/2002-5/2006 | B.A., (Major: Psychology; Minor: Mathematics), Pitzer College, Claremont, CA.   |

## **PROFESSIONAL EXPERIENCE (POST-DOCTORAL)**

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|-----------------|--|
| 7/2015-present  | Assistant Professor, Department of Health Behavior, Gillings School of Global Public Health, University of North Carolina at Chapel Hill |
| 10/2015-present | Faculty Affiliate, Center for Developmental Science, University of North Carolina at Chapel Hill   |
| 7/2015-present  | Adjunct Faculty, Department of Psychology & Neuroscience, University of North Carolina at Chapel Hill                                    |

- 8/2013-7/2015 Senior Investigator, Center for Developmental Science, University of North Carolina at Chapel Hill
- 1/2013-7/2015 Research Assistant Professor, Department of Psychology & Neuroscience, University of North Carolina at Chapel Hill
- 8/2013-1/2014 Statistician/Investigator, Frank Porter Graham Child Development Institute, University of North Carolina at Chapel Hill

#### HONORS AND AWARDS

- *Jeffrey S. Tanaka Award* for most outstanding paper published in *Multivariate Behavioral Research* in 2009. Awarded by the Society for Multivariate Experimental Psychology (SMEP).
- *Lyle V. Jones Award* for outstanding scholarship and citizenship as a graduate student of the L.L. Thurstone Psychometric Laboratory 2010
- *Keck Student Summer Research Fellowship*, Claremont Joint Science Department, Claremont, CA 2006
- *Graduated Cum Laude*, Pitzer College, Claremont, CA 2006.
- *Sigma Xi Research Honors Society*, Claremont Colleges, CA, Inducted 2005
- *Psi Chi Psychology Honors Society*, Claremont Colleges, CA, Inducted 2005

#### MEMBERSHIPS

- Society for Research on Alcoholism
- Society for Behavioral Medicine
- Society for Prevention Research
- American Psychological Association: Divisions 5 (Evaluation, Measurement, and Statistics)
- American Psychological Association: Division 50 (Society of Addiction Psychology)

#### PUBLICATIONS \*Student/mentee author

##### **Peer-Reviewed Journal Articles Published/In-Press during 2016-2017 Academic Year**

30. **Gottfredson, N.C.**, Hussong, A.M., Ennett, S., T., & Rothenberg, W.A. (2017, in press). The role of parental engagement in the inter-generational transmission of smoking behavior and identity. *Journal of Adolescent Health*.
29. **Gottfredson, N. C.**, Sterba, S. K., & Jackson, K. (2017). Explicating the conditions under which multilevel multiple imputation mitigates bias resulting from random coefficient-dependent missing longitudinal data. *Prevention Science*, 18, 12-19.
28. Willoughby, M. T., **Gottfredson, N. C.**, Stifler, C. A., & the Family Life Project Investigators. (2017) Observed temperament from ages 6-36 months predicts parent and teacher reported attention deficit/hyperactivity disorder symptoms in first grade. *Development and Psychopathology*, 29, 107-120.
27. Curran, P. J., Cole, V., Bauer, D. J., Hussong, A. M., & **Gottfredson, N. C.** (2016). Improving factor score estimation through the use of observed background characteristics. *Structural Equation Modeling: An Interdisciplinary Journal*, 1-18.

26. Foshee, V. A., **Gottfredson, N. C.**, Reyes, H. L. M., Chen, M., David-Ferdon, C., Latzman, N. E., Tharp, A. T., & Ennett, S. E. (2016). Developmental outcomes of using physical violence against dates and peers. *Journal of Adolescent Health, 58*, 665-671. PMID: PMC4877208

**Peer-Reviewed Journal Articles Published Prior to 2016-2017 Academic Year**

25. Hoyle, R. & **Gottfredson, N. C.** (2015). Sample size considerations in prevention research applications of multilevel modeling and structural equation modeling. *Prevention Science, 16*, 987-996.
24. Hopkin, C.R., Hoyle, R.H., & **Gottfredson, N.C.** (2015). Maximizing the yield of small samples in prevention research: A review of general strategies and best practices. *Prevention Science, 16*, 950-955.
23. Willoughby, M., Stifler, C., & **Gottfredson, N.C.** (2015). The epidemiology of observed temperament: factor structure and demographic group differences. *Infant Behavior and Development, 39*, 21-34.
22. Sterba, S. K. & **Gottfredson, N. C.** (2015). Diagnosing global case influence on MAR versus MNAR model comparisons. *Structural Equation Modeling: A Multidisciplinary Journal, 22*, 294-307.
21. Willoughby, M. T., Mills-Koonce, W. R., Waschbusch, D. A., **Gottfredson, N. C.**, & the Family Life Project Investigators (2015). An examination of the parent report version of the Inventory of Callous Unemotional Traits in a community sample of 1<sup>st</sup> grade children. *Assessment, 22*, 76-85. Published online: DOI: 10.1177/1073191114534886.
20. Zerwas, S., Von Holle, A., Watson, H., **Gottfredson, N.C.**, & Bulik, C. M. (2014). Childhood anxiety trajectories and adolescent disordered eating: Findings from the NICHD study of early child care and youth development, *International Journal of Eating Disorders, 47*, 784-792. PMID: PMC4425370
19. **Gottfredson, N. C.**, Foshee, V. A., Ennett, S. T., Habertick, B., & Smolen, A. (2014). Genetic heterogeneity in adolescents' depressive symptoms in response to victimization. *Journal of Clinical Child and Adolescent Psychology*. PMID: PMC4229484
18. **Gottfredson, N.C.**, Bauer, D.J., & Baldwin, S. (2014). Modeling change in the presence of non-randomly missing data: Evaluating a Shared Parameter Mixture Model. *Structural Equation Modeling, 21*, 196-209. PMID: PMC4084916
17. Willoughby, M., Mills-Koonce, R., **Gottfredson, N. C.**, Wagner, N. (2014). Measuring callous unemotional behaviors in early childhood: Factor structure and prediction of stable aggression in middle childhood. *Journal of Psychopathology and Behavioral Assessment, 36*, 30-42.
16. **Gottfredson, N. C.**, Bauer, D. J., Baldwin, S., & Okiishi, J. (2013). Using a shared parameter mixture model to estimate change during treatment when termination is related to recovery speed. *Journal of Consulting and Clinical Psychology, 82*, 13-827. PMID: PMC4032810
15. **Gottfredson, N. C.** & Hussong, A. M. (2013). Drinking to dampen affect variability: Findings from a college student sample. *Journal of Studies on Alcohol and Drugs, 74*, 576-583.

14. Bauer, D.J., **Gottfredson, N.C.**, Dean, D., & Zucker, R. A. (2012). Analyzing repeated measures data on individuals nested within groups: Accounting for dynamic group effects. *Psychological Methods*, *17*, 1-14.
13. Bauer, D.J., Baldasaro, R.E., **Gottfredson, N.C.** (2012). Diagnostic procedures for detecting nonlinear relationships between latent variables. *Structural Equation Modeling*, *19*, 157-177.
12. Foshee, V. A., McNaughton Reyes, H. L., **Gottfredson, N. C.**, Chang, L., & Ennett, S. T. (2013). A longitudinal examination of psychological, behavioral, academic, and relationship consequences of adolescent dating abuse victimization among a primarily rural sample of youth. *Journal of Adolescent Health*, *53*, 723-729.
11. Giles, S. M., Pankratz, M. M., Ringwalt, C., Jackson-Newsom, J., Hansen, W. B., Dusenbury, L., & **Gottfredson, N. C.** (2012). The role of teacher communicator style in the delivery of a middle school substance use prevention program. *Journal of Drug Education*, *42*, 393-411.
10. **Gottfredson, N.C.** & Hussong, A.M. (2011). Parent involvement protects against self-medication behaviors during high school transitions. *Addictive Behaviors*, *36*, 1246-52. PMID: PMC3179833
9. Stucky, B.D., **Gottfredson, N.C.**, Panter, A.T., Daye, C.E., Allen, W.R., & Wightman, L.F. (2011). An item factor analysis and item response theory-based revision of the Everyday Discrimination Scale. *Cultural Diversity and Ethnic Minority Psychology*, *17*, 175-85.
8. **Gottfredson, N.C.** (2010). Evaluating shared parameter mixture models for longitudinal analysis with missing data (Abstract). *Multivariate Behavioral Research*, *45*, 1025-1026.
7. Buchler, N.G., Faunce, P., Light, L.L., **Gottfredson, N.C.**, & Reder, L.M. (2010). Effects of repetition on associative recognition in young and older adults: Item and associative strengthening. *Psychology and Aging*, *26*, 111-126.
6. **Gottfredson, N.C.**, Panter, A.T., Daye, C.E., Allen, W.A., & Wightman, L.F. (2009). The effects of educational diversity in a national sample of law students: Fitting multilevel latent variable models in data with categorical indicators. *Multivariate Behavioral Research*, *44*, 305-331.
5. Ringwalt, C. L., Pankratz, M. M., Jackson-Newsom, J., **Gottfredson, N.C.**, Hansen, W. B., Giles, S. M., and Dusenbury, L. (2009). Three Year Trajectory of Teachers' Fidelity to a Drug Prevention Curriculum. *Prevention Science*, *11*, 67-76.
4. Ringwalt, C.L, Pankratz, M.M., **Gottfredson, N.C.**, Jackson-Newsom, J., Dusenbury, L., Giles, S. M., Curry, D., Hansen, W. (2009) The effects of students' curriculum engagement, attitudes towards their teachers, and perception of their teachers' skills on school-based prevention curriculum outcomes. *Journal of Drug Education*, *39*, 223-237.
3. **Gottfredson, N.C.**, Panter, A.T., Daye, C.E., Allen, W.A., Wightman, L.F. & Deo, M. (2008). Identifying predictors of law student life satisfaction. *Journal of Legal Education*, *58*, 520-530.

2. **Gottfredson, N.C.**, Panter, A.T., Daye, C.E., Allen, W.A., Wightman, L.F. & Deo, M. (2008). Does diversity at undergraduate institutions influence learning and democracy outcomes? *Journal of Diversity in Higher Education*, 1, 80-94.
1. Gottfredson, G. D., Gottfredson, D. C., Payne, A. A. & **Gottfredson, N. C.** (2005). School climate predictors of school disorder: Results from the National Study of Delinquency Prevention in Schools. *Journal of Research in Crime and Delinquency*, 42, 412-444.

#### **Peer-Reviewed Book Chapter**

1. Stucky, B.D., **Gottfredson, N.C.**, & Panter, A.T. (2012). Item-level factor analysis. In H. Cooper, P. Camic, D. Long, A.T. Panter, D. Rindskopf, & K. Sher (Eds.), *APA Handbook of Research Methods in Psychology* (pp. 683-697). Washington, DC: APA Books.

#### **Invited Talks**

##### **2016-2017 Academic Year**

3. **Gottfredson, N. C.** (September, 2016). *Nutritional and behavioral correlates of food addiction*. Presented to the Center for Excellence in Eating Disorders in Chapel Hill, NC.

##### **Prior to 2016-2017 Academic Year**

2. **Gottfredson, N.C.** (April, 2016). *Statistical modeling of trajectories of human health and behavior*. Presented at Child Wellbeing Meeting for Doris Duke Fellows, Duke University Sanford School of Public Policy.
1. **Gottfredson, N.C.** (October, 2015). *Relaxing assumptions about missing waves of data in longitudinal studies within a mixed regression modeling framework*. Presented at the UNC Quantitative Psychology forum in Chapel Hill, NC.

#### **Peer-Reviewed Presentations (First or Senior- Author Only) \*Student/mentee author**

##### **2016-2017 Academic Year**

15. **Gottfredson, N.C.** (June, 2017). *On the problem of unreliability when parsing within- and between-person effects in longitudinal growth models*. Workshop presented at the annual meeting of the Society for Research on Alcoholism, Denver, CO.
14. Freeman, L.K.\* & **Gottfredson, N.C.** (April, 2017). *Using ecological momentary assessment to assess sleep quality and cravings in those recovering from addiction*. Poster presented at the annual meeting of the Society for Behavioral Medicine, San Diego, CA.
13. **Gottfredson, N.C.** (March, 2017). *Assessing for reactivity to an ecological momentary assessment protocol using data from individuals recovering from addiction*. Poster presented at the annual meeting of the Society for Behavioral Medicine, San Diego, CA.
12. Tuttle, H.M.\* & **Gottfredson, N.C.** (Marcy, 2017). *The role of stress and negative affect in food consumption for individuals with comorbid addiction to food and illicit substances*. Poster presented at the annual meeting of the Society for Behavioral Medicine, San Diego, CA.
11. Tuttle, H.M.\* & **Gottfredson, N. C.** (October, 2016). *Effects of stress on nutritional patterns in people recovering from addiction*. Poster presented at the annual meeting of the American Public Health Association in Denver, CO.

10. **Gottfredson, N. C.** (June, 2016). *Reducing bias and increasing precision in the measurement of health disparities*. Paper presented at the annual meeting of the Society for Prevention Research in San Francisco, CA.

**Prior to 2016-2017 Academic Year**

9. **Gottfredson, N.C.** (May, 2015). *Relaxing the MAR assumption with a multiple imputation model for longitudinal data*. Paper presented at the annual meeting of the Society for Prevention Research in Washington, DC.
8. **Gottfredson, N.C.**, Davisson, E.K., & Hoyle, R.H. (January 2013). *Re-conceptualizing reactivity to ecological momentary assessment procedures*. Poster presented at the annual meeting of The Society for Personality and Social Psychology in New Orleans, LA.
7. **Gottfredson, N.C.** (May 2012). *Modeling change in the presence of non-randomly missing data*. Paper presented at a symposium on indirect applications of mixture models at the Modern Modeling Methods Meeting in Storrs, Connecticut.
6. **Gottfredson, N.C.** (September 2010). *Evaluating latent pattern mixture models for handling non-ignorably missing data*. Paper presented at the Society for Multivariate and Experimental Psychology meeting in Atlanta, Georgia.
5. **Gottfredson, N.C.** & Bauer, D.J. (July 2010). *Evaluating latent pattern mixture model performance with non-randomly missing longitudinal data*. Paper presented at the Psychometrics Society meeting in Athens, Georgia.
4. **Gottfredson, N.C.** & Bauer, D.J. (July 2009). *Exploring the efficacy of latent class pattern mixture models for handling non-randomly missing data*. Poster presented at the Psychometrics Society meeting in Cambridge, England.
3. **Gottfredson, N.C.**, Stucky, B.D., Panter, A.T., Daye, C.E., Allen, W.A. & Wightman, L.F. (May 2008). *Local dependence in the Everyday Discrimination Scale: Findings and suggestions*. Poster presented at the Association for Psychological Science in Chicago, IL.
2. **Gottfredson, N.C.** (September 2006). *Age differences in the ability to flexibly shift memory criterion for old-new judgments*. Poster presented at the Joint Sciences Department Annual Symposium for Summer Student Research, Claremont, CA.
1. **Gottfredson, N. C.** (November 2004). *After school program participation and delinquency: A replication study*. Paper presented at annual meeting of the American Society of Criminology, Nashville, TN.

## **TEACHING ACTIVITIES**

### ***Current Academic Year (2016-2017)***

#### ***Spring 2017***

- HBEH 761 (Generalized Linear Models with Health Behavior Applications)

#### ***Fall 2016***

- Research Intensive Undergraduate Seminar (PSYC 395/HBEH 396; 2 students)

#### ***HBEH Capstone Project Advisor***

- 2016-2017: Orange County Solid Waste Management Department

#### ***Previous Years***

##### ***Courses Taught in Past Three Years***

- HBEH 761 (guest lecturer), Spring 2016
- HBEH 860 (consulting statistical mentor and guest lecturer), Spring 2016
- HBEH 760 (Measurement module; 11 enrolled), Fall 2016
- Research Intensive Undergraduate Seminar (PSYC 395; individualized instruction), Spring 2015-Fall 2016

## **MENTORSHIP**

### ***Dissertation Committees***

#### ***Current (10):***

- Deshira Wallace (Health Behavior)
- Leslie Adams (Health Behavior)
- Nivedita Bhushan (Health Behavior)
- Sabeeh Baig (Health Behavior)
- Sarah Claesen Wyckoff (Health Behavior)
- Sarah Kowitt (Health Behavior)
- Becky Naumann (Epidemiology)
- Kami Hayashi (Health Behavior)
- Lauren Hill (Health Behavior)
- Allison Schmidt (Health Behavior)

#### ***Completed (2):***

- Tamara Taggart (Health Behavior, 2016, *Religiosity, Racial Identity, and Sexual Initiation among Black American Adolescents*)
- Kathleen Day Malley (School of Education, 2014, *Validations of the SCALE: A Measure of Middle School Students' Transition Experiences*)

#### ***Undergraduate Honors Thesis Supervision***

##### ***Completed (1):***

- Lindsey Freeman (Department of Psychology, 2015-2016, *Using Ecological Momentary Assessment (EMA) to Study the Impact of Colored Glasses on Sleep and Mood*)

**Primary Academic Advisor**

**Current (3):**

- Blythe Rhodes (Health Behavior, MSPH-PhD, 2016-present)
- Hannah Tuttle (Health Behavior, MPH, 2016-present)
- Michelle Huang (Health Behavior, MPH, 2016-present)

**Pre- and Post- Doctoral Mentoring (Grants/Fellowships):**

**Current (3):**

- Ann Austin (Maternal and Child Health, PhD, 2016-present) *F31 NRSA Application Co-Sponsor*
- Rebecca Sokol (Health Behavior, MSPH-PhD, 2016-present) *Center for Developmental Science Pre-doctoral Fellowship Advisor*
- Mairin Augustine (Postdoctoral Fellow) *Center for Developmental Science Postdoctoral Fellowship Advisor*

**GRANTS**

**Funded Grants**

2017	Center for Developmental Science Interdisciplinary Pilot Grant Award, <b>PI</b> , \$10,000
2014-2019	Early Researcher Career Development Award, <i>The impact of affect regulatory mechanisms and binge eating on drug recovery</i> (K01 DA035153A NIDA, <b>PI</b> , Total by FY: \$155,333).
2013-2018	<i>Harmonizing Substance Use and Disorder Measures to Facilitate Multistudy Analyses: Supplement to Analyze Seek-Test-Treat-Retain Data from Multiple Criminal Justice Samples</i> , NIDA, <b>Statistician</b> .
2016	Junior Faculty Development Award. (Committee on Faculty Research and Study Leave, UNC, <b>PI</b> , \$7,500)
2014-2017	<i>Peer Mechanisms in the Internalizing Pathway to Substance Use</i> (R01 DA037215, NIDA, Unpaid <b>contributor</b> due to NIH policy on K awards, Total by FY: \$167,813)
2014-2016	<i>Infant Sleep Development: Contributions of Vagal Tone and Parenting</i> . (R21 HD077146 NICHD, Unpaid <b>contributor</b> due to NIH policy on K awards, Total by FY: \$175,000)
2009-2011	Individual NRSA Pre-Doctoral Fellowship, <i>Modeling non-random missingness in experience sampling research on substance use</i> (F31 DA026686 NIDA, <b>PI</b> , Total by FY: \$30,183).



## **SERVICE**

### **Current National Service (2016-2017):**

- **Ad hoc Reviewer for:** *American Journal of Preventive Medicine, European Eating Disorders Review, Health Psychology, Multivariate Behavioral Research, Psychological Methods, Structural Equation Modeling: An Interdisciplinary Journal*

### **Past National Service:**

- **Ad hoc Reviewer for:** *Addictive Behaviors, Abnormal Psychology, American Journal of Preventive Medicine, Annals of Behavioral Medicine, British Journal of Mathematical and Statistical Psychology, Clinical Psychological Science, Criminology, Cultural Diversity and Ethnic Minority Psychology, Drug and Alcohol Review, European Eating Disorders Review, Health Psychology, Journal of Affective Disorders, Multivariate Behavioral Research, Journal of Statistical Computation and Simulation, PLoS One, Psychological Assessment, Psychological Methods, Psychometrika, and Structural Equation Modeling*
- Representative to APA Science Student Council, Quantitative Methodology, 2009-2011

### **Current State/Local Service (2016-2017):**

- Executive Member on Board of Directors and Chair of the Human Resources and Personnel Committee, Chapel Hill Cooperative Preschool, 2015-present

### **Current Service to Institution (2016-2017):**

- Organizing committee member for the Carolina Consortium on Human Development consortium series, *Studying Heterogeneity in Development*, Spring 2017
- Dismantling Racism work group member, Fall 2016-present

### **Past Service to Institution:**

- Search committee member for PhD-level statistician position at the Center for Developmental Science, 2015-2016

### **Current Service for Health Behavior Department (2016-2017):**

- Committee to revise Health Behavior methodology curriculum (2015-present)
- Grant-writing assistance and statistical consultation for faculty and graduate students (2015-present)