

CURRICULUM VITAE

Date prepared: June 22, 2022

NAME: Nicholas C. Jacobson

OFFICE ADDRESS:

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I. EDUCATION

<u>DATE</u>	<u>INSTITUTION</u>	<u>DEGREE</u>
2007-2011	Truman State University, Kirksville, Missouri	Bachelor of Science, Psychology Minors: Statistical Methods, English, and Justice Systems Received: Spring 2011

Cumulative Undergraduate G.P.A.:3.91 (4.0=A), Summa Cum Laude

2011-2015	The Pennsylvania State University University Park, Pennsylvania	Master of Science, Psychology
2015-2019	The Pennsylvania State University University Park, Pennsylvania	Ph.D., Clinical Psychology Received: Summer 2019

II. FELLOWSHIPS AND POSTDOCTORAL TRAINING

<u>DATE</u>	<u>INSTITUTION</u>	<u>ROLE</u>
2018-2019	Massachusetts General Hospital, Harvard Medical School Boston, Massachusetts	Clinical Fellow, Psychiatry
2019	Massachusetts General Hospital, Harvard Medical School Boston, Massachusetts	Postdoctoral Fellow, Psychiatry

III. ACADEMIC APPOINTMENTS:

<u>DATE</u>	<u>INSTITUTION</u>	<u>ROLE</u>
2019-Present	Dartmouth College Geisel School of Medicine Hanover, New Hampshire	Assistant Professor, Department of Biomedical Data Science (Primary)
2019-Present	Dartmouth College Geisel School of Medicine Hanover, New Hampshire	Assistant Professor, Department of Psychiatry (Secondary)
2019-Present	Dartmouth College Geisel School of Medicine Hanover, New Hampshire	Assistant Professor, Quantitative Biomedical Sciences Graduate Program (Secondary)
2021-Present	Dartmouth College Arts and Sciences Hanover, New Hampshire	Adjunct Assistant Professor, Computer Science (Secondary)

IV. DARTMOUTH INSTITUTIONAL LEADERSHIP ROLES

<u>DATE</u>	<u>INSTITUTION</u>	<u>ROLE</u>
July 2021- Present	Dartmouth College Geisel School of Medicine Hanover, New Hampshire	Deputy Director, Treatment Development and Evaluation Core, Center for Technology and Behavioral Health (National Institute of Drug Abuse, Center of Excellence P30)

V. LICENSURE AND CERTIFICATION (if applicable)

N/A

VI. HOSPITAL OR HEALTH SYSTEM APPOINTMENTS

<u>DATE</u>	<u>INSTITUTION</u>	<u>ROLE</u>
March 2020- Present	Massachusetts General Hospital Obsessive-Compulsive and Related Disorders Program (OCD) Department of Psychiatry Boston, Massachusetts	Consultant - Non-Clinical
August 2019- Present	Massachusetts General Hospital Obsessive-Compulsive and Related Disorders Program (OCD) Department of Psychiatry Boston, Massachusetts	Non-Employee

VII. OTHER PROFESSIONAL POSITIONS (NON-DARTMOUTH):

<u>DATE</u>	<u>INSTITUTION</u>	<u>ROLE</u>
December 2013- November 2016	Clinical Research Methods and Statistics Special Interest Group (SIG) Association for Behavioral and Cognitive Therapy (ABCT)	President
August 2009- May 2011	Psi Chi, The International Honor Society in Psychology Truman State University	President

VIII. PROFESSIONAL DEVELOPMENT ACTIVITIES

CLINICAL TRAINING AND EXPERIENCE

<u>DATE</u>	<u>INSTITUTION</u>	<u>ROLE</u>
July 2018- June 2019	Massachusetts General Hospital, Harvard Medical School Boston, Massachusetts	Cognitive-Behavioral Therapy, Adult Outpatient Psychotherapy
Supervisors: Drs. Angela Fang, Ann Chosak, Jessica Rasmussen, Jeanne Fama, Susan Sprich, Sabine Wilhelm		
<ul style="list-style-type: none"> • Conducted clinical intakes with a range of presenting problems • Treated clients with a range of presenting problems including anxiety, depression, eating, and obsessive-compulsive disorders using cognitive-behavioral therapy. 		
January 2019- June 2019	Massachusetts General Hospital, Harvard Medical School Boston, Massachusetts	Dialectical Behavior Therapy Group, Adult Outpatient Psychotherapy
Supervisors: Drs. Michelle Jacobo, Jonah Cohen		
<ul style="list-style-type: none"> • Reviewed patient progress in team rounds. • Lead group therapy mindfulness exercises and co-lead skills modules. 		
July 2018- December 2018	Massachusetts General Hospital, Harvard Medical School Boston, Massachusetts	Inpatient Psychiatry Service
Supervisor: Dr. Michelle B. Stein		
<ul style="list-style-type: none"> • Attended and participated in team-rounds on a weekly basis, contributing to the assessment, case conceptualization, and treatment planning of inpatient clients. • Conducted brief individual psychotherapy and co-led brief skills-based psychotherapy with inpatient clients on a weekly basis. 		
May 2017- June 2018	The Pennsylvania State University Psychology Clinic, University Park, Pennsylvania	Clinical Supervisor
Supervisor: Dr. Sandy Testa		
<ul style="list-style-type: none"> • Supervised three therapists individually seeing clients with principal diagnoses of anxiety and depressive disorders. • Reviewed videotapes of psychotherapy sessions, aiding in the case conceptualization and clinical intervention of clients. 		
August 2015- May 2017	The Pennsylvania State University Psychology Clinic, University Park, Pennsylvania	Clinical Supervisor, Cognitive-Behavioral Therapy

Supervisor: Dr. Michelle G. Newman

- Co-supervised six therapists who treated a total of fifteen-clients per week on average during weekly three-hour group supervision and bi-weekly one-hour supervision meetings.
- Led group discussions of empirical literature related to cognitive-behavioral therapy, provided feedback on supervisees' cases, and instructed therapists on the use of manualized cognitive-behavioral therapy.
- Reviewed supervisees' therapy tapes bi-weekly and provided feedback on supervisees' strengths and weaknesses.
- Supervised cases with principal mood, anxiety, posttraumatic stress, eating, and personality disorders.

August 2011- The Pennsylvania State University Anxiety Clinic
July 2018 Psychology Clinic,
University Park, Pennsylvania

Supervisor: Drs. Michelle G. Newman, Kristen Smith-Simon, Sandy Testa, Brian Rabian

- Attended weekly case and research presentations on the role of anxiety, obsessive-compulsive, and posttraumatic stress disorders in adults and children.
- Participated in clinical presentations on differential diagnosis, hierarchy construction, medication use, sleep paralysis, and many other specialized topics.
- Conducted clinical interviews for pre and post assessments.
- Periodically conducted therapy treating primary anxiety disorders.

July 2014- The Pennsylvania State University Clinical Assistantship
July 2016 Psychology Clinic,
University Park, Pennsylvania

Supervisor: Drs. Alissa Yamasaki and Sandy Testa

- Participated in weekly two-hour group supervision of cases and didactics on targeted clinical issues (suicidality, homicidal ideation, complex trauma, ethics) and one-hour weekly supervision.
- Visited community resources that interfaced with the community mental health clinic, including an inpatient unit and occupational and rehabilitative community resources.
- Treated clients utilizing an integrative framework with a primary emphasis on behavioral and interpersonal psychotherapy approaches.
- Conducted monthly diagnostic assessments for one year.
- Maintained a six-client caseload of moderately to severely impaired clients with principal psychosis, posttraumatic stress disorder, personality disorders, and mood disorders.

May 2014- The Pennsylvania State University Neuropsychological
May 2015 Psychology Clinic, Assessment Practicum
University Park, Pennsylvania

Supervisor: Drs. Peter Arnett, Michael Kiel, and Michael Shapiro

- Participated in three-hour weekly meetings to discuss case conceptualization of recent neuropsychological assessments and received individual supervision as needed.
- Received didactics in test administration, test scoring, battery selection, and report writing.
- Prepared integrated reports interpreting neuropsychological tests, interviews, symptom-assessments, and personality assessments to examine differential diagnoses and academic accommodation status (e.g. attention-deficit hyperactivity disorder, dyslexia, and traumatic brain injuries).

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| May 2013-
May 2014 | The Pennsylvania State University
Psychology Clinic,
University Park, Pennsylvania | Cognitive-Behavioral Therapy
Practicum |
| Supervisor: Dr. Michelle G. Newman | | |
| <ul style="list-style-type: none">• Participated in three-hour weekly meetings and one-hour individual supervision, which focused on cognitive-behavioral assessment and psychotherapy techniques, including: self-monitoring, hierarchy construction, progressive muscle relaxation, self-control desensitization, interoceptive exposure, prolonged exposure, behavioral activation, activity planning, cognitive restructuring, and culturally adapted psychotherapy.• Conducted monthly case presentations regarding ongoing clients within group supervision.• Conducted monthly diagnostic assessments.• Maintained a three-client caseload of clients meeting diagnostic criteria for a range of mood, anxiety, posttraumatic stress, and personality disorders. | | |
| May 2013-
August 2013 | The Pennsylvania State University
Psychology Clinic,
University Park, Pennsylvania | Integrative Psychotherapy
Practicum |
| Supervisor: Dr. Jeff Hayes | | |
| <ul style="list-style-type: none">• Participated in three-hour weekly meetings and one-hour individual supervision, which focused on integrative psychotherapy spanning feminist, interpersonal, cognitive-behavioral, and psychodynamic frameworks.• Conducted monthly diagnostic assessments.• Maintained a three-client caseload of clients meeting diagnostic criteria for a range of personality disorders, and mood disorders. | | |
| August 2012-
May 2013 | The Pennsylvania State University
Psychology Clinic,
University Park, Pennsylvania | Contemporary
Psychodynamic
Psychotherapy Practicum |
| Supervisor: Dr. Aaron Pincus | | |
| <ul style="list-style-type: none">• Participated in three-hour weekly meetings and one-hour individual supervision, which focused on contemporary psychodynamic diagnosis, case formulation, and psychotherapy within object-relations (Transference-Focused Psychotherapy) and interpersonal frameworks.• Conducted a case presentation of a client with narcissistic personality disorder.• Conducted monthly diagnostic assessments.• Maintained a three-client caseload of clients meeting diagnostic criteria for a range of personality disorders and other comorbid conditions. | | |
| May 2012-
August 2012 | The Pennsylvania State University
Psychology Clinic,
University Park, Pennsylvania | Introductory Clinical Methods
Practicum |
| Supervisor: Dr. Michael Wolff | | |
| <ul style="list-style-type: none">• Participated in two-hour weekly meetings and one-hour individual supervision, which stressed humanistic treatment techniques, utilizing empathic responses, and motivational interviewing.• Conducted monthly diagnostic assessments.• Maintained a two-client caseload of mood and personality disorders. | | |
| May 2009-
January 2010 | Parc Provence
Creve Coeur, MO | Activity Specialist, Dementia
Care Facility |

Supervisors: Multiple supervisors, depending on day

- Worked exclusively with residents affected by dementia.
- Initiated treatment through the social philosophy of dementia treatment.
- Led activities for dementia residents.

May 2009- Alternatives to Living in Violent Clinical Intern, Assessing and
September Environments (ALIVE), St. Louis, MO Triaging Crisis Services and
2009 Intakes

Supervisors: Jennifer Gadsby, M.S.W., LCSW; Katie Robinson, M.S.E.

- Conducted clinical intakes assessing abuse and interpartner violence, wrote intake reports, and referred to counselor.
- Conducted crisis interviews over phone and in-person, assessing and providing services for those actively and recently experiencing interpartner violence.
- Served as court advocate by attending orders of protection hearings with clients.
- Coordinated getting clients into shelters, removing clients from actively abusive situations, following up with clients, and bringing clients food/clothing as the Nights of Safety coordinator.

June 2009 Camp Erin by Annie's Hope the Counselor for Childhood
Bereavement Center for Kids, St. Louis, MO Bereavement

Supervisors: Multiple supervisors, depending on day

- Counseled teens suffering from recent losses.
- Utilized behavioral activation including exercise and activity scheduling.
- Conducted group therapy focused on processing loss.

IX. TEACHING ACTIVITIES

A. UNDERGRADUATE EDUCATION:

<u>DATES</u>	<u>INSTITUTION</u>	<u>NAME OF COURSE/ACTIVITY</u>	<u>ROLE</u>	<u>FREQUENCY</u>	<u>COURSE SIZE</u>
Spring 2020	Dartmouth College	PSYC 50.01 Neuroscience of Mental Illness	Invited Lecturer	One invited lecture	25 students
Fall 2020	Dartmouth College	CS 89.20/189: Data Science for Health	Invited Lecturer	One invited lecture	25 students
Spring 2020	Dartmouth College	CS 69/169: Applications of Data Science	Invited Lecturer	One invited lecture	25 students
Fall 2017; Spring 2018	Pennsylvania State University	PSYCH 481: Introduction to Clinical Psychology	Instructor	Three times per week	65 students

Fall 2016; Spring 2017	Pennsylvania State University	PSYCH 238: Introduction to Personality Psychology	Instructor	Two times per week	100 students
Summer 2016	Pennsylvania State University	PSYCH 301W: Basic Research Methods in Psychology	Instructor	Online	20 students
Fall 2015	Penn State Altoona	PSYCH 270: Intro to Abnormal Psychology	Invited Lecturer	One invited lecture	25 students
Fall 2015	Penn State Altoona	PSYCH 470 Advanced Abnormal Psychology	Invited Lecturer	One invited lecture	25 students
Fall 2015; Spring 2016	Pennsylvania State University	PSYCH 423: Social Psychology of Interpersonal/Intergroup Relationships	Teaching Assistant	Twice per week	30 students
Fall 2014; Spring 2015	Pennsylvania State University	PSYCH 477 Mental Health Practicum with Children	Teaching Assistant	Twice per week	20 students
Fall 2013; Spring 2014	Pennsylvania State University	PSYCH 301W: Basic Research Methods in Psychology	Lab Instructor	Twice per week	100 students
Spring 2013	Pennsylvania State University	PSYCH 238 Introduction to Personality Psychology	Teaching Assistant	Twice per week	100 students
Fall 2012	Pennsylvania State University	PSYCH 105: Psychology as a Science and Profession	Teaching Assistant	Twice per week	200 students
Winter 2008; Winter 2009; Winter 2010	Truman State University	PSYC 499 Hypnosis	Teaching Assistant	Daily	20 students
Winter 2008; Winter 2009;	Truman State University	PSYC 499 Psychology of Mass Media	Teaching Assistant	Daily	20 students

Winter
2010

B. GRADUATE EDUCATION:

<u>DATES</u>	<u>INSTITUTION</u>	<u>NAME OF COURSE/ACTIVITY</u>	<u>ROLE</u>	<u>FREQUENCY</u>	<u>COURSE SIZE</u>
Fall 2021; Fall 2020	Dartmouth College	QBS 126: Analysis of Densely Collected Longitudinal Data	Instructor	Twice per week	10 students
Spring 2020; Spring 2021	Dartmouth College	QBS 270: Quantitative Biomedical Sciences Journal Club	Instructor (1 of 2)	Once per week	10 students
Spring 2020	Dartmouth College	QBS 177: Algorithms in Biomedical Data Science.	Invited Lecturer	One invited lecture	20 students

X. PRIMARY RESEARCH ADVISING

A. GRADUATE STUDENTS:

<u>DATES</u>	<u>INSTITUTION</u>	<u>ADVISEE/MENTEE</u>	<u>PROGRAM</u>
Fall 2019 – Current	Dartmouth College	Matthew Nemesure	PhD Advisee; PhD Program in Quantitative Biomedical Sciences
Winter 2020 – Current	Dartmouth College	Damien Lekkas	PhD Advisee; PhD Program in Quantitative Biomedical Sciences
Spring 2020 – Current	Dartmouth College	George Price	PhD Advisee; PhD Program in Quantitative Biomedical Sciences
Fall 2019 – Winter 2020	Dartmouth College	Lili Liu	Capstone Advisor; MS Program in Quantitative Biomedical Sciences
Fall 2019	Dartmouth College	Shuai Jiang	Rotation; PhD Program in Quantitative Biomedical Sciences

B. POSTDOCTORAL FELLOWS AND RESIDENTS

<u>DATES</u>	<u>INSTITUTION</u>	<u>ADVISEE/MENTEE</u>	<u>PROGRAM</u>
Fall 2019 – Current	Dartmouth College; Dartmouth Hitchcock Medical Center	Michael Heinz	Postdoctoral Fellow (Dartmouth College); Psychiatry Resident; (Dartmouth Hitchcock Medical Center)
Fall 2020 – Current	Dartmouth College	Robert Klein	Postdoctoral Fellow; National Institute of Drug Abuse T32

XI. ADVISING/MENTORING (OTHER)

A. UNDERGRADUATE STUDENTS:

<u>DATES</u>	<u>INSTITUTION</u>	<u>ADVISEE/MENTEE</u>	<u>PROGRAM</u>
Winter 2021; Spring 2021; Spring 2020	Dartmouth College	Veronica Abreu	Undergraduate Advising and Research (UGAR); Sophomore Research Scholarship, First Term; Second Term
Spring 2021	Dartmouth College	Jimena Abejon Fuertes	Undergraduate Advising and Research (UGAR); Junior Research Scholarship, First Term
Spring 2021	Dartmouth College	Russell Rapaport	Undergraduate Advising and Research (UGAR); Junior Research Scholarship, Second Term
Summer 2020; Spring 2021	Dartmouth College	Chaeun Song	Undergraduate Advising and Research (UGAR); Sophomore Research Scholarship, First Term; Second Term
Fall 2020; Spring 2021	Dartmouth College	Joseph Gyorda	Undergraduate Advising and Research (UGAR); Junior Research Scholarship, First Term; Third Term
Fall 2020; Spring 2021	Dartmouth College	John Keane	Undergraduate Advising and Research (UGAR); Junior Research Scholarship, Third Term
Spring 2021	Dartmouth College	Piper Stacey	Undergraduate Advising and Research (UGAR); Sophomore Research Scholarship, Second Term
Spring 2021	Dartmouth College	Camilla Lee	Undergraduate Advising and Research (UGAR); Junior Research Scholarship, First Term
Fall 2020; Spring 2021	Dartmouth College	Nhi Nguyen	Undergraduate Advising and Research (UGAR); Sophomore Research Scholarship, First Term; Third Term
Fall 2020	Dartmouth College	Zoe Wortzman	Undergraduate Advising and Research (UGAR); Junior Research Scholarship, Second Term

Fall 2020; Summer 2020	Dartmouth College	Jason McFadden	Undergraduate Advising and Research (UGAR); Presidential Scholarship, First Term; Second Term
Fall 2020	Dartmouth College	Emily Appenzeller	Undergraduate Advising and Research (UGAR); Junior Research Scholarship, First Term
Fall 2020; Winter 2020	Dartmouth College	William Chen	Undergraduate Advising and Research (UGAR); Junior Research Scholarship, First Term; Leave Term Scholarship
Summer 2020; Fall 2020	Dartmouth College	Thomas Lingard	Undergraduate Advising and Research (UGAR); Junior Research Scholarship, First Term; Second Term
Summer 2020	Dartmouth College	Nina Paripovic	Undergraduate Advising and Research (UGAR); Junior Research Scholarship, First Term
Spring 2020	Dartmouth College	Henry Jin	Undergraduate Advising and Research (UGAR) Scholarship
Winter 2020; Spring 2020	Dartmouth College	Raphael Huang	Undergraduate Advising and Research (UGAR); Junior Research Scholarship, First Term
Winter 2020; Spring 2020	Dartmouth College	Alexandra Limb	Undergraduate Advising and Research (UGAR); Junior Research Scholarship, First Term, Second Term
Spring 2020; Winter 2020	Dartmouth College	Mia Seiner	Undergraduate Advising and Research (UGAR); Sophomore Research Scholarship, Second Term
Winter 2020	Dartmouth College	Colin Goodbred	Undergraduate Advising and Research (UGAR); Leave Term Grant
Spring 2019; Winter 2020; Spring 2020	Dartmouth College	Minkeun Song	Undergraduate Advising and Research (UGAR); Junior Research Scholarship, First Term; Second Term; Third Term

B. GRADUATE STUDENTS:

<u>DATES</u>	<u>INSTITUTION</u>	<u>ADVISEE/MENTEE</u>	<u>PROGRAM</u>
Fall 2019 – Spring 2021	Dartmouth College	Alex daSilva	PhD Dissertation Committee; Psychology and Brain Sciences
Fall 2019- Spring 2021	Dartmouth College	Curtis Peterson	PhD Dissertation Committee; The Dartmouth Institute
Fall 2019- Current	Dartmouth College	Tiankang Xie	Qualification Committee and Dissertation Committee; Quantitative Biomedical Sciences

XII. RESEARCH ACTIVITIES (REVERSE CHRONOLOGICAL ORDER)

A1. SPONSORED ACTIVITY (GRANTS AND CONTRACTS) WITH SIGNIFICANT CONTRIBUTION TO CRAFTING AND WRITING OF PROPOSAL

<u>DATES</u>	<u>PROJECT TITLE/NUMBER</u>	<u>ROLE/ %EFFORT</u>	<u>SPONSOR</u>	<u>ANNUAL DIRECT COSTS</u>
07/01/2021- 06/30/2026	Technology-Based Treatments for Substance Use Disorders. P30 Center of Excellence grant (5P30DA029926-11)	Co-Investigator (PI Marsch), 15% Effort	National Institute on Drug Abuse (NIDA)	\$791,611
8/06/2020- 5/31/2025	Personalized Deep Learning Models of Rapid Changes in Major Depressive Disorder Symptoms using Passive Sensor Data from Smartphones and Wearable Devices (R01 MH123482)	Principal Investigator, 35% Effort	National institute of Mental Health (NIMH); National Institute of General Medical Sciences (NIGMS)	\$ 493,784
01/01/2020- 12/31/2021	Digital Intervention to Treat Anxiety and Depression among Persons Receiving Treatment for Opioid Use Disorder (P30 Pilot; P30DA029926)	Principal Investigator, 0% Effort	National Institute on Drug Abuse (NIDA)	\$13,170
08/23/2018- 05/31/2023	Harnessing Mobile Technology to Reduce Mental Health Disorders in College Populations (R01MH115128)	Consultant (PI Wilfley)	National Institute of Mental Health (NIMH)	\$653,429
2010-2011	Strengths and Weaknesses in Test-Taking: In what ways do Anxiety and Impulsivity	Principal Investigator	Psi Chi	\$850

2010	Impact Negative Test Performance? Strengths and Weaknesses in Test-Taking: In what ways do Anxiety and Impulsivity Impair Test Performance?	Principal Investigator	TruScholars	\$4,500
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A2. OTHER SPONSORED ACTIVITY (GRANTS AND CONTRACTS) WITHOUT SIGNIFICANT CONTRIBUTION TO WRITING OF PROPOSAL

<u>DATES</u>	<u>PROJECT TITLE/NUMBER</u>	<u>ROLE/ %EFFORT</u>	<u>SPONSOR</u>	<u>ANNUAL DIRECT COSTS</u>
9/1/2015- 2/28/2025	Northeast Node of the National Drug Abuse Clinical Trials Network	Co-Investigator (PI Marsch), 10% Effort	National Institute of Drug Abuse (NIDA)	\$726,374
2020, 2021, 2022	Development and Evaluation of Digital Assessments and Treatments for Anxiety and Depression	Principal Investigator, 0% Effort	Frank and Myra Weiser Scholar in the Neurosciences, Geisel School of Medicine, Dartmouth College	\$25,000
01/01/2020- 12/31/2020	Iterative Effects of Episodic Future Thinking on Delay Discounting and Cannabis Use (P30 Pilot; P30DA029926)	Co-Investigator (PI Sofis), 0% Effort	National Institute on Drug Abuse (NIDA)	\$15,700
01/01/2020- 12/31/2020	Evaluation of an Ecological Momentary Intervention of Implementation Intentions Delivered by Text Message to Reduce Cigarette Smoking (P30 Pilot; P30DA029926)	Co-Investigator (PI Lemley), 0% Effort	National Institute on Drug Abuse (NIDA)	\$17,200
2018-2020	Automating Coaching to Facilitate Dissemination of an Effective Prevention Program	Consultant (PI Taylor)	National Eating Disorders Association	
2019	Advance the knowledge and treatment of Obsessive Compulsive Disorder by understanding the causes, neurobiological mechanisms, and clinical manifestations	Postdoctoral Fellow	Lee Baer fund for OCD Research and Teaching	

XIII. PROGRAM DEVELOPMENT

I serve as the Deputy Director the Treatment Development and Evaluation Core of Dartmouth’s Center for Technology and Behavioral Health, a P30 “Center of Excellence Grant” from the National Institute on Drug Abuse, on which I serve as co-Investigator.

XIV. ENTREPRENEURIAL ACTIVITIES

N/A

XV. MAJOR COMMITTEE ASSIGNMENTS, INCLUSIVE OF PROFESSIONAL SOCIETIES

A. National/International

<u>DATES</u>	<u>COMMITTEE</u>	<u>ROLE</u>	<u>INSTITUTION</u>
2021	UK Research and Innovation	Grant Reviewer	Medical Research Council, United Kingdom
2021	2021 Research Grant Awards	Grant Reviewer	International Obsessive Compulsive Disorder Foundation (IOCDF)

B. REGIONAL

N/A

C. INSTITUTIONAL

<u>DATES</u>	<u>COMMITTEE</u>	<u>ROLE</u>	<u>INSTITUTION</u>
2019	Precision Health Program	Grant Reviewer	University of Michigan
2020; 2021	Quantitative Biomedical Sciences	MS Admissions Committee	Dartmouth College

XVI. EDITORIAL BOARDS

<u>DATES</u>	<u>JOURNAL</u>	<u>ROLE</u>
2020-Present	Journal of Technology in Behavioral Science	Editorial Board
2021	Sensors	Guest Editor “Passive Sensing for Health”
2021	Frontiers in Psychology	Lead Guest Editor, Organized Topic: “Computational Modeling of

XVII. JOURNAL REFEREE ACTIVITY

PUBLONS PROFILE OF PEER-REVIEW

[HTTPS://PUBLONS.COM/RESEARCHER/1516519/NICHOLAS-C-JACOBSON/PEER-REVIEW/](https://publons.com/researcher/1516519/nicholas-c-jacobson/peer-review/)

<u>JOURNAL</u>	<u>NUMBER OF REVIEWS</u>
Assessment	13
Journal of Medical Internet Research	9
Npj Digital Medicine	5
Journal of Technology in Behavioral Science	4
Clinical Psychological Science	4
The Lancet Psychiatry	4
Journal of Affective Disorders	4
Aging & Mental Health	4
Journal of Consulting and Clinical Psychology	4
BMC Medicine	3
Plos One	3
Behaviour Research and Therapy	2
Journal of Anxiety Disorders	2
Psychological Medicine	2
BJPsych Open	2
Science Advances	2
Personalized Medicine	2
JMIR MHealth and UHealth	2
The Journal of Nervous and Mental Disease	2
Journal of Autism and Developmental Disorders	2
Clinical Psychologist	2
EClinicalMedicine	2
Health Psychology	2
British Journal of Clinical Psychology	2
Psychotherapy Research	2
JAMA Psychiatry	2
Emotion	1
Sensors	1
Stress and Health	1
Perspectives on Psychological Science	1
Clinical Psychology & Psychotherapy	1
Explore: The Journal of Science and Healing	1
New England Journal of Medicine	1
Motivation and Emotion	1
Journal of Dual Diagnosis	1
SAGE Open	1

XVIII. AWARDS AND HONORS

A. RESEARCH AWARDS

DATES

AWARD

Fall 2019

International Travel Award, Society for Ambulatory Assessment

Fall 2018

Alies Muskin Career Development Leadership Program Award from the Anxiety and Depression Association of America (ADAA)

Spring 2018

Federation of Associations in Behavioral and Brain Sciences (FABBS) Doctoral Dissertation Research Excellence Award to acknowledge and honor graduate student scientists who have conducted doctoral dissertation research of superior scientific quality and broader societal impact.

Spring 2018

College of the Liberal Arts Raymond Lombra Graduate Student Award for the Excellence in Research in the Social Sciences, Pennsylvania State University

Spring 2018

Best Research Paper Award in Psychology, Pennsylvania State University

Spring 2014

Marty Murphy Award for Excellence in Psychology, Based on Excellence in Research and Exceptional Collegiality, Pennsylvania State University

Spring 2014

Honorable Mention, Society for Personality Assessment for Presenting "Using an ecological momentary assessment approach to examine the relationship between neuroticism and conscientiousness and variability in constructive and unconstructive thought processes"

Spring 2013

Honorable Mention, Association for the Psychological Science Student Caucus Student Research Awards for Presenting "The Temporal Relationship Between Anxiety and Depression: A Meta-Analysis"

Spring 2012

Honorable Mention, Anne Anastasi General Psychology Graduate Student Award by the American Psychological Association's First Division

Fall 2011

Best Student Poster Award from Anxiety Special Interest Group for presenting "Evaluating Quantity and Quality of Worrisome and Intrusive Thoughts and their Triggers: An Ecological Momentary Assessment Approach"

Spring 2011	Clark L. Hull Award for Scientific Excellence in Writing on Experimental Hypnosis from the American Journal of Clinical Hypnosis
Spring 2011	Regional Research Award from Psi Chi for presenting "The Effectiveness of Cognitive-Behavioral Therapy in Reducing Anxiety among those with Autism Spectrum Disorders: A Meta-Analysis"
Spring 2011	Best Oral Presentation from Psi Chi Annual Research Symposium for presenting "Learning in Hypnosis: Applications to Academic Performance"

B. HONORS

<u>DATES</u>	<u>AWARD</u>
Fall 2011	Pennsylvania State University Graduate Fellowship (93 awarded of the approximately 1,700 graduate students)
Spring 2011	President's Certificate of Recognition for Outstanding Academic Achievement
Fall 2009	Awarded by Truman State University
Fall 2009	APA Student Affiliate Membership Awarded by Truman State University
Fall 2009	President's List (4.0/4.0 GPA for Fall 2008, Spring 2009, Fall 2009, Fall 2010, and Spring 2011 semesters at Truman State University)

XIX. INVITED PRESENTATIONS

* Denotes current or former students
Underline denotes first or last author

A. INDIVIDUALLY INVITED PRESENTATIONS

<u>NUMBER</u>	<u>PRESENTATION</u>
16	Jacobson, N.C. (2022, June). Invited plenary session presented at the International Conference on Eating Disorders, Hosted Online.
15	Jacobson, N.C. (2022, May). Oral presentation presented at Open Digital Health, Hosted Online.
14	Jacobson, N.C. (2022, May). Oral presentation presented at the Expert Meeting and Special Issue Bridging Social Sciences and Computational Methods, Amsterdam, The Netherlands.
13	Jacobson, N.C. (2022, April). Oral presentation presented Neural Engineering & Translation Labs, at University of California San Diego, California.
12	Jacobson, N.C. (2022, April). Oral presentation presented the Psychiatry Grand Rounds, New York Medical College, New York.

- 11 **Jacobson, N.C.** (2021, December). Oral presentation presented the Computational and Methodological Statistics (CMStatistics) Conference, King's College, London, United Kingdom.
- 10 **Jacobson, N.C.** (2021, November). Oral presentation presented the National Eating Disorders Association Convention, Hosted Online.
- 9 **Jacobson, N.C.** (2021, September). Oral presentation presented the Treatment Selection Idea Lab Conference, University of Trier, Germany.
- 8 **Jacobson, N.C.** (2021, April). Oral presentation presented the Department of Psychology and Brain Sciences, Dartmouth College.
- 7 **Jacobson, N.C.** (2021, April). Oral presentation presented the Centre for Connected Health, University of Melbourne.
- 6 **Jacobson, N.C.** (2021, February). Oral presentation presented the Grand Rounds, Geisel School of Medicine, Dartmouth College.
- 5 **Jacobson, N.C.** (2021, February). Oral presentation presented at TecHealth Center at University of South Carolina.
- 4 **Jacobson, N.C.** (2021, February). Oral presentation presented at the Department of Psychological and Brain Sciences, University of Louisville. Supported by an NIH R15.
- 3 **Jacobson, N.C.** (2020, November). Oral presentation presented at Clinical Research Methods and Statistics SIG, Association for Behavioral and Cognitive Therapies (ABCT) in November 2020 Philadelphia, PA (delivered virtually due to COVID-19).
- 2 **Jacobson, N.C.** (2020, October). Oral presentation presented the University of Virginia Psychology Department.
- 1 **Jacobson, N.C.** (2020, October). Using passive sensing to predict psychopathology across multiple time scales. Oral symposium presented at Technology in Psychiatry Summit in October 2020 Boston, MA (delivered virtually due to COVID-19).

B. CONFERENCE PRESENTATIONS

B1. INTERNATIONAL CONFERENCE PRESENTATIONS

- | <u>NUMBER</u> | <u>PRESENTATION</u> |
|---------------|--|
| 14 | Jacobson, N.C. (2022, June). <i>Idiographic Digital Phenotyping: Using Passively Collected Smartphone Sensors and Personalized Deep Learning Models to Predict Momentary Anxiety Symptoms Among Persons with Anxiety Disorders</i> . Oral symposium presented at Society for Ambulatory Assessment in June 2022 Online. |
| 13 | Jacobson, N.C. & Liu, L.,* (2021, May). <i>Uncovering When Dynamic Variables Optimally Predict One Another in Intensive Longitudinal Data using Novel Personalized Modeling Strategies</i> . Oral symposium presented at Society for Ambulatory Assessment in May 2021 Online. |
| 12 | Jacobson, N.C. (2021, March). <i>Designing a Generative Mental Health Chatbot using Artificial Intelligence</i> . Oral symposium presented at Society of Behavioral Medicine in March 2021 Online. |
| 11 | Jacobson, N.C. (2021, March). <i>Using Artificial Intelligence to Predict the Level of Personality Functioning based on Life History Narratives</i> . Oral symposium presented at Society of Personality Assessment in March 2021 Online. |

- 10 **Jacobson, N.C.** (2021, March). *Using Machine Learning and Personality Traits to Understand the Predictability of Day-to-Day Affective Dynamics*. Oral symposium presented at Society of Personality Assessment in March 2021: Online.
- 9 **Jacobson, N.C.** (2020, January). *It's Time to Ask When: Investigating the Timing of Dynamics in Intensive Longitudinal Data*. Oral symposium presented at Society of Ambulatory Assessment (SAA) in January 2020 Melbourne, Australia.
- 8 **Jacobson, N.C.** (2020, January). *Compliance Thresholds in Intensive Longitudinal Data: Worse than Listwise Deletion: Call for Action*. Oral symposium presented at Society of Ambulatory Assessment (SAA) in January 2020 Melbourne, Australia.
- 7 Newman, M. G., & LaFreniere, L. S. & **Jacobson, N. C.** (2016, June). *Peak and trajectories of change in relaxation induced anxiety as predictors of outcome from CBT for GAD*. Oral symposium presented at the 46th Annual Meeting of the Society for Psychotherapy Research, Jerusalem, Israel. Chairs: Solomonov, N. and McCarthy, K. S.
- 6 Roche, M., **Jacobson, N. C.** & Pincus, A. (2015, August) *Examining the Static and Dynamic features of personality dysfunction in the Alternative Model of DSM-5*. Oral symposium submitted to the American Psychological Association in 2015 at Toronto, Canada.
- 5 **Jacobson, N. C.**, Newman, M. G., & Goldfried, M. R. (2015, June). *Clinical Feedback about Empirically Supported Treatments for Obsessive-Compulsive Disorder*. Oral presentation at the Society for Psychotherapy Research in June 2015 at Philadelphia, PA.
- 4 Newman, M. G., Castonguay, L.G., & **Jacobson, N. C.** (2015, June). *Attachment as a moderator of CBT for GAD with and without interpersonal and emotional processing techniques*. Oral presentation at the Society for Psychotherapy Research in June 2015 at Philadelphia, PA.
- 3 **Jacobson, N. C.**, Chow, S., & Newman, M. G., (2015, June). *The Differential Time-Varying Effect Model (DTVEM): Identifying Optimal Time Lags in Intensive Longitudinal Data*. Paper presented at the biennial conference of the Society for Ambulatory Assessment, University Park, PA.
- 2 Ji, L., Chow, S-M., **Jacobson, N.C.**, Schermerhorn, A.C. & Cummings, E.M. (2015, June). *Handling missing data in the modeling of ambulatory assessment data*. Paper presented at the biennial conference of the Society for Ambulatory Assessment, University Park, PA.
- 1 **Jacobson, N. C.**, Newman, M. G., & Goldfried, M. R. (2013, June). *Clinical Experiences in Conducting Empirically Supported Treatments: Obsessive-Compulsive Disorder*. Oral presentation at the Society for the Exploration of Psychotherapy Integration in June 2013 at Barcelona, Spain.

B2. NATIONAL CONFERENCE PRESENTATIONS

- | <u>NUMBER</u> | <u>PRESENTATION</u> |
|---------------|---|
| 60 | Jacobson, N.C. (2022, November). <i>Flattening the Suicidal Ideation Curve: COVID-19 Stay-at-Home Orders Are Associated With Immediate</i> |

- Changes in Suicidal Search Behavior in the United States. Oral symposium presented at Association for Behavioral and Cognitive Therapies (ABCT) in November, 2022 New York, NY.
- 59 **Jacobson, N.C.** (2022, March). *Digital Biomarkers of Social Anxiety Severity: Digital Phenotyping Using Passive Smartphone Sensors*. Oral symposium presented at Association for Behavioral and Cognitive Therapies (ABCT) in March, 2022 Denver, CO.
- 58 **Jacobson, N.C.** (2022, March). *Idiographic Digital Phenotyping: Using Passively Collected Smartphone Sensors and Personalized Deep Learning Models to Predict Momentary Anxiety Symptoms Among Persons with Anxiety Disorders*. Oral symposium presented at Association for Behavioral and Cognitive Therapies (ABCT) in March, 2022 Denver, CO.
- 57 **Jacobson, N.C. & Liu, L.*** (2021, November). *Using Wearable Movement Data Captured in Daily Life and Deep Learning to Predict Deterioration in Anxiety Disorders Across 17 18 Years*. Oral symposium presented at Association for Behavioral and Cognitive Therapies (ABCT) in November, 2021 Online.
- 56 **Jacobson, N.C. & Liu, L.*** (2021, November). *Uncovering When Dynamic Variables Optimally Predict One Another in Intensive Longitudinal Data using Novel Personalized Modeling Strategies*. Oral symposium presented at Association for Behavioral and Cognitive Therapies (ABCT) in November, 2021 Online.
- 55 **Jacobson, N.C.** (2021, October). *Designing a Dynamic Generative Mental Health Chatbot using Artificial Intelligence*. Oral symposium presented at Technology in Psychiatry Summit in October, 2021 Online.
- 54 **Jacobson, N.C.** (2021, October). *Using Passive Smartphone and Wearable Sensor Data to Develop Contextualized and Personal Indicators of Anxiety and Posttraumatic Stress Disorders*. Oral symposium presented at Technology in Psychiatry Summit in October, 2021 Online.
- 53 **Jacobson, N.C.** (2021, March). *Passively Collected Digital Biomarkers of Worry Severity among Persons Living with HIV*. Oral symposium presented at Anxiety and Depression Association of America (ADAA) in March, 2021 Online.
- 52 Nemesure, M.D., Heinz, M.V., Huang, R., & **Jacobson, N.C.** (2020, November). *Predictive Modeling of Psychiatric Illness using Electronic Medical Records and a Novel Machine Learning Approach with Artificial Intelligence*. Oral symposium presented at Association for Behavioral and Cognitive Therapies (ABCT) in November 2020 Philadelphia, PA.
- 51 **Jacobson, N.C.** (2020, November). *Experiences in Conducting a Large Global Intervention Trial: Recommendations and Lessons Learned*. Oral symposium presented at Association for Behavioral and Cognitive Therapies (ABCT) in November 2020 Philadelphia, PA.
- 50 Nemesure, M.D*, Heinz, M. V.*, Huang, R.* & **Jacobson, N. C.** (2020, April). *Predictive Modeling of Psychiatric Illness in College Population Using Novel Machine Learning Approach with Artificial Intelligence*. Poster presented at American Psychiatric Association in April 2020 Philadelphia, PA. Note: Conference Cancelled due to COVID-19.
- 49 **Jacobson, N.C.** (2020, March). *Passive Sensing of Prediction of Moment-to-Moment Depressed Mood among Persons with Clinical Levels of Depression Sample using Smartphones*. Oral symposium presented at

- Anxiety and Depression Association of America (ADAA) in March 2020 San Antonio, TX. Chairs: **Jacobson, N.C.** & Summers, B. Note: Conference Cancelled due to COVID-19.
- 48 **Jacobson, N.C.** (2020, March). *Passively Collected Digital Biomarkers of Worry Severity among Persons Living with HIV*. Oral symposium presented at Anxiety and Depression Association of America (ADAA) in March 2020 San Antonio, TX. Note: Conference Cancelled due to COVID-19.
- 47 **Jacobson, N.C.** (2019, November). *Digital Phenotyping in a Large Sample across the Globe: Passive Digital Biomarkers of Anxiety Depend on the Global Geospatial Context*. Oral symposium presented at Association for Behavioral and Cognitive Therapies (ABCT) in November 2019 Atlanta GA. Chairs: **Jacobson, N.C.** & Wilhelm, S.
- 46 **Jacobson, N.C.** (2019, November). *Large Global Open Trial of a Personalized Smartphone Intervention: Personalized Feedback Leads to Large Reductions in Anxiety and Depression in a Transdiagnostic Sample*. Oral symposium presented at Association for Behavioral and Cognitive Therapies (ABCT) in November 2019 Atlanta GA. Chairs: Frumkin, M. & Rodebaugh, T.
- 45 **Jacobson, N.C.** (2019, November). *Objective digital phenotypes of worry severity, pain severity and pain chronicity in persons living with HIV*. Poster presented at Anxiety Disorders Special Interest Group: Association for Behavioral and Cognitive Therapies (ABCT) in November 2019 Atlanta GA.
- 44 **Jacobson, N. C.**, Weingarden, H., & Wilhelm, S. (2019, March). *Digital Biomarkers of Mood Disorders and Symptom Change*. Poster presented at Anxiety and Depression Association of America (ADAA) in March 2019 Chicago, IL.
- 43 **Jacobson, N. C.** & Newman, M.G. (2018, November). *Bayesian Generalized Additive Models: Investigating the Non-Linear Relationships among Clinical Anxiety, Clinical Depression, and Momentary Affect in Daily Life*. Oral symposium presented at Association for Behavioral and Cognitive Therapies (ABCT) in November 2018 Washington, DC. Chair: De Nadai, A.
- 42 **Jacobson, N. C.** & Newman, M.G. (2018, November). *Replicability of Ideographic Models of Psychopathology: Applications to Ideographic Dynamic Factor Models of Affect in a Transdiagnostic Sample*. Oral symposium presented at Association for Behavioral and Cognitive Therapies (ABCT) in November 2018 Washington, DC. Chairs: De Nadai, A. & Henderson, C.
- 41 **Jacobson, N. C.** & Newman, M.G. (2018, April). *Depression Variability Predicts Later Anxiety for Those with Depressive Disorders*. Oral symposium presented at Anxiety and Depression Association of America (ADAA) in April 2018 Washington, DC. Chairs: Shin, K.E. & Newman, M.G.
- 40 Roche, M.J., Phillips, J., & **Jacobson, N.C.** (March, 2018). Examining the validity of the Level of Personality Functioning Scale across self and observer reports. Oral symposium presented at Society for Personality Assessment Annual Convention, in March 2018 Washington, D.C. Chair: Roche, M.J.
- 39 **Jacobson, N.C.** & Newman, M.G. (2017, November). *Cross-sectional and Longitudinal Associations among Facets of Neuroticism with Anxiety and Depressive Disorders*. Oral symposium presented at Association

- for Behavioral and Cognitive Therapies (ABCT) in November 2017 San Diego, CA. Chair: Khazanov G. K.
- 38 **Jacobson, N.C.** & Newman, M.G. (2017, November). *Non-Linear Timing Effects on Change: Using the Differential Time-Varying Effect Model to Examine Timing Effects of Interventions*. Oral symposium presented at Association for Behavioral and Cognitive Therapies (ABCT) in November 2017 San Diego, CA. Chair: De Nadai, A. S.
- 37 **Jacobson, N.C.** & Newman, M.G. (2017, November). *Effect of Depression Variability on Later Anxiety for Those with Depressive Disorders*. Oral symposium presented at Association for Behavioral and Cognitive Therapies (ABCT) in November 2017 San Diego, CA. Chairs: Shin, K.E. & Newman, M. G.
- 36 Newman, M. G., LaFreniere, L. S. & **Jacobson, N. C.** (2017, April). *Peak and trajectories of change in relaxation induced anxiety as predictors of outcome from CBT for GAD*. Oral symposium presented to the 37th Annual Meeting of the Anxiety and Depression Association of America, San Francisco, CA. Chairs: LaFreniere, L. S. & Newman, M. G.
- 35 Newman, M. G., **Jacobson, N. C.** Szkodny, L. E. & Sliwinski, M. J. (2017, April). Contrast avoidance in daily life. In M. G. Newman (chair), *The contrast avoidance model: Reconceptualizing worry in GAD and as a transdiagnostic process*. Oral symposium presented to the 37th Annual Meeting of the Anxiety and Depression Association of America, San Francisco, CA. Chair: Newman, M. G.
- 34 **Jacobson, N. C.** & Newman, M.G. (2016, October). *Anxiety and Depression as Bidirectional Risk Factors for One Another: A Meta-Analysis of Longitudinal Studies*. Oral symposium presented at Association for Behavioral and Cognitive Therapies (ABCT) in October 2016 New York, NY. Chairs: & **Jacobson, N.C.** & Newman, M. G.
- 33 Newman, M. G., **Jacobson, N. C.** and Szkodny, L. E. & Sliwinski, M. J. (2016, October). *Contrast avoidance in daily life. The contrast avoidance model: Reconceptualizing worry in GAD and as a transdiagnostic process*. Oral symposium presented to the 50th Annual Meeting of the Association for Behavioral and Cognitive Therapies, New York, N. Y. Chair: Erickson, T. M.
- 32 **Jacobson, N. C.** & Newman, M.G. (2016, April). *Anxiety Disorders as a Longitudinal Risk Factor for Depressive Disorders: A Meta-Analysis*. Oral symposium presented at Anxiety and Depression Association of America (ADAA) in April 2016 Philadelphia, PA. Chairs: **Jacobson, N.C.** & Newman, M. G.
- 31 Lord, K., **Jacobson, N. C.**, & Newman M. G. (2016, April). *Social support in bereaved spouses mediates the relationship between anxiety and depression*. Poster presented at the 36th Annual Convention of the Anxiety and Depression Association of America, Philadelphia, PA.
- 30 Lord, K. **Jacobson, N. C.**, & Newman M. G. (2016, April). *Social criticism moderates the relationship between anxiety disorders and depressive disorders 10 years later*. Poster presented at the 36th Annual Convention of the Anxiety and Depression Association of America, Philadelphia, PA.
- 29 **Jacobson, N. C.**, Newman, M.G., & Goldfried, M. (2015, November). *Effectiveness, Strengths, and Limitations of Empirically Supported Treatments for Obsessive-Compulsive Disorder based on Feedback*

- from Clinicians. Oral symposium presented at Association of Behavioral and Cognitive Therapies in November 2015 at Chicago, IL. Chairs: Szkodny, L. & **Jacobson, N.C.**
- 28 **Jacobson, N. C.**, Chow, S., & Newman, M.G. (2015, November). *Analyzing All Nonlinear Dynamics in Intensive Longitudinal Data*. Oral symposium presented at Association of Behavioral and Cognitive Therapies in November 2015 at Chicago, IL. Chairs: **Jacobson, N.C.** & Rappaport, L.
- 27 **Jacobson, N. C.**, Rappaport, L., Atkins, D., & Rogge, R. (2015, November). *Causal Inference in Clinical Research: Direct Effects and Mediation*. Panel discussion at Association of Behavioral and Cognitive Therapies in November 2015 at Chicago, IL. Chairs: Rappaport, L.
- 26 Newman, M.G., Castonguay, L.G., **Jacobson, N. C.**, & Moore, G. (2015, November). *Adult Attachment as a Moderator of CBT Versus CBT Plus Interpersonal and Emotional Processing Therapy for GAD*. Oral symposium presented at Association of Behavioral and Cognitive Therapies in November 2015 at Chicago, IL. Chairs: Antony, M.
- 25 Reeves, J., Baldwin, S., Moore, M. Rappaport, L. & **Jacobson, N. C.** (2015, November). *Extensions of Structural Equation Modeling to Clinical Research*. Symposium presented at Association of Behavioral and Cognitive Therapies in November 2015 at Chicago, IL. Chairs: Rappaport, L. Discussant: **Jacobson, N. C.**
- 24 LaFreniere, L.S., Newman, M.G., & **Jacobson, N.C.** (2015, November). *Relaxation-induced anxiety: Effects on treatment outcome for generalized anxiety disorder*. Poster presented at Association of Behavioral and Cognitive Therapies in November 2015 at Chicago, IL.
- 23 Mortazavi, A, Soto, J. & **Jacobson, N.C.** (2015, February). Positive emotion, drinking motivation, and problematic drinking: A case for cultural variations. Poster presentation at the Society for Personality and Social Psychology in February 2015 at Long Beach, NJ.
- 22 **Jacobson, N. C.**, & Newman, M. G. (2014, November). *Analyzing All Longitudinal Interdependencies in Intensive Longitudinal Data Simultaneously with Person-Specific Models*. Oral symposium accepted to Association of Behavioral and Cognitive Therapies in November 2014 at Philadelphia, PA. Chairs: **Jacobson, N.C.** & Rappaport, L.
- 21 **Jacobson, N. C.**, Laurenceau, J.P, Atkins, D., & Wright; A. G. (2014, November). *Intensive Data: Bringing Intensive Longitudinal Data and Ambulatory Assessment to Clinical Research and Practices*. Panel discussion at Association of Behavioral and Cognitive Therapies in November 2014 at Philadelphia, PA. Chairs: Rappaport, L.
- 20 **Jacobson, N. C.**, Newman, M. G., & Goldfried, M. R. (2014, November). *Clinical Experiences in Conducting Empirically Supported Treatments: Obsessive-Compulsive Disorder*. Poster presentation at the Association of Behavioral and Cognitive Therapies in November 2014 at Philadelphia, PA.
- 19 Szkodny, L. E., **Jacobson, N. C.**, & Newman, M. G. (2014, November). *Relationship Between PTSD Symptomatology and Variability in Daily Thought Processes Using an Ecological Momentary Assessment Approach*. Poster presentation at the Association of Behavioral and Cognitive Therapies in November 2014 at Philadelphia, PA.

- 18 **Jacobson, N. C.** & Newman, M. G. (2014, March). *Anxiety Predicting Depression across Minutes, Hours, and Days: An Ecological Momentary Assessment*. Oral symposium accepted to Anxiety and Depression Association of at Chicago, IL. Chairs: **Jacobson, N.C.** & Newman, M. G.
- 17 Szkodny, L. E., **Jacobson, N. C.**, & Newman, M. G. (2014, March). *Using an ecological momentary assessment approach to examine the relationship between neuroticism and conscientiousness and variability in constructive and unconstructive thought processes*. Poster presented at the Annual Meeting of the Society for Personality Assessment, Arlington, VA. **Honorable Mention, for the Best Student Poster Award.**
- 16 Newman, M.G, Castonguay, L., **Jacobson, N.C.** & Fisher, A.J. (2013, November). *Attachment as a Moderator of CBT for GAD With and Without Interpersonal and Emotional Processing Techniques*. Oral presentation at the Association of Behavioral and Cognitive Therapies in November 2013 at Nashville, TN.
- 15 Newman, M. G., Yen, J., Mitra, P., Murphy, W., **Jacobson, N. C.**, and Kim, H. (2013, November). *Supervised Machine Learning Classification of Journals Entries About Emotional Personal Experiences*. Paper presented at The American Medical Informatics Association, Washington, D. C.
- 14 **Jacobson, N. C.**, & Newman, M. G. (2013, May). *The Temporal Relationship Between Anxiety and Depression: A Meta-Analysis*. Poster presentation at the Association for the Psychological Science (APS) Conference in May 2013 at Washington DC. **Honorable Mention, Association for the Psychological Science Student Caucus Student Research Awards.**
- 13 **Jacobson, N. C.**, & Newman, M. G. (2013, May). *Avoidance Mediates Earlier Anxiety and Later Depression over a Decade Later*. Poster presentation at the Association for the Psychological Science (APS) Conference in May 2013 at Washington DC.
- 12 **Jacobson, N. C.**, & Newman, M. G. (2013, May). *Anxiety Predicts Depression over the Course of Minutes, Hours, and Days: An Ecological Momentary Assessment*. Poster presentation at the Association for the Psychological Science (APS) Conference in May 2013 at Washington DC.
- 11 **Jacobson, N. C.**, & Newman, M. G. (2013, April). *State Anxiety Predicting State Depression across Hours: An Ecological Momentary Assessment*. Poster presentation at the Association for the Workshop on Intensive Longitudinal Methods: Analysis of Diary and Experience Sampling Data Conference in April 2013 at State College, Pennsylvania.
- 10 **Jacobson, N. C.**, & Newman, M. G. (2012, November). *The Temporal Relationship Between Anxiety and Depression: A Meta-Analysis*. Poster presented at the Association for Behavioral and Cognitive Therapies, National Harbor, Maryland.
- 9 **Jacobson, N. C.**, & Newman, M. G. (2012, November). *Testing the Mediating Role of Avoidance Between Anxiety and Depression*. Poster presented at the Association for Behavioral and Cognitive Therapies, National Harbor, Maryland.

- 8 **Jacobson, N. C.**, & Newman, M. G. (2012, November). *Anxiety as a Temporal Predictor of Depression during Brief Time Periods: An Ecological Momentary Assessment*. Poster presented at the Association for Behavioral and Cognitive Therapies, National Harbor, Maryland.
- 7 **Jacobson, N.C.**, & Constance, J (2012, November). *Effectiveness of Cognitive-Behavioral Therapy in Reducing Anxiety among those with Autism Spectrum Disorders: a Meta-Analysis*. Poster presentation at the Association for Behavioral and Cognitive Therapies, National Harbor, Maryland.
- 6 **Jacobson, N.C.**, & Constance, J (2012, May). *Effectiveness of Cognitive-Behavioral Therapy in Reducing Anxiety among those with Autism Spectrum Disorders: a Meta-Analysis*. Poster presentation at the Society for Psychotherapy Research in May 2012 at Virginia Beach, VA.
- 5 **Jacobson, N. C.** (2012, May). *Strengths and Weaknesses in Test-Taking: In What Ways Do Anxiety and Impulsivity Impact Test Performance?* Poster presentation at the Association for the Psychological Science (APS) Conference in May 2012 at Chicago, IL.
- 4 **Jacobson, N. C.** Kramer, S., Tharp, A., Harmon, K., Cejas, G. & Costa, S. (2012). *Deficits of Encoding in Hypnosis: A Result of Altered State of Awareness*. Poster presentation at the Association for the Psychological Associations Annual Conference in May 2012 at Chicago, IL.
- 3 **Jacobson, N. C.**, & Constance (2012, May). *Effectiveness of Cognitive-Behavioral Therapy in Reducing Anxiety among those with Autism Spectrum Disorders: A Meta-Analysis*. Poster presentation at the Association for the Psychological Science National Conference in May 2012 at Chicago, IL.
- 2 Szkodny, L. E., Mogle, J.A., **Jacobson, N. C.**, Newman, M. G., Sliwinski, M. J. (2011, November). *Evaluating Quantity and Quality of Worrisome and Intrusive Thoughts and their Triggers: An Ecological Momentary Assessment Approach*. Poster presentation at Association for Behavioral and Cognitive Therapies Anxiety Special Interest Group in November, 2011 at Toronto, Ontario. **Best Student Poster Award from Anxiety Special Interest Group.**
- 1 **Jacobson, N. C.**, Jacobson, B, Clark, S., & Breault, M. (2010, May). *She Makes Me Look Like That?: The Effects of Radiating Beauty in Romantic Relationships*. Poster presentation at the Association for the Psychological Science (APS), National Conference, in May 2010 at Boston, MA.

B3. REGIONAL/LOCAL CONFERENCE PRESENTATIONS

- | <u>NUMBER</u> | <u>PRESENTATION</u> |
|---------------|--|
| 9 | Jacobson, N. C. , Kramer, S., Tharp, A., Harmon, K., Cejas, G., & Costa, S. (2011, May). <i>Learning in Hypnosis: Applications to Academic Performance</i> . Poster presentation at the Midwestern Psychological Association Conference in May 2011 at Chicago, IL. Regional |

Research Award from Psi Chi: International Honor Society in Psychology.

- 8 Constance, J., & **Jacobson, N. C.** (2011, May). *Effectiveness of Cognitive-Behavioral Therapy in Reducing Anxiety among those with Autism Spectrum Disorders: a Meta-Analysis*. Poster presentation at the Midwestern Psychological Association Conference in May 2011 at Chicago, IL.
- 7 **Jacobson, N. C.**, Jacobson, B., Clark, S. & Breault, M. (2011, May). *Male Preferences in the Female Body Type*. Poster presentation at the Midwestern Psychological Association Conference in May 2011 at Chicago, IL.
- 6 **Jacobson, N. C.**, & Vittengl, J. (2011, May). *Strengths and Weaknesses in Test-Taking: In What Ways Do Anxiety and Impulsivity Impact Test Performance?* Poster presentation at the Midwestern Psychological Association Conference in May 2011 at Chicago, IL.
- 5 Ruberton, P., **Jacobson, N. C.**, Bangert, L., Constance, J., Pearlstein, J., & Vittengl, J. (2011, May). *Seeing the Good in Life: The Effects of Gratitude Reflection on Perceived Life Events and Subjective Well-Being*. Poster presentation at the Midwestern Psychological Association Conference in May 2011 at Chicago, IL.
- 4 Schickler, A., Brown, J., Ruberton, P., Constance, J., **Jacobson, N. C.**, Pearlstein, J., Spalding, K, Conner, D. & Vittengl, J. (2011, May). *Statistics Skills Preferred by Psychology Graduate Programs*. Poster presentation at the Midwestern Psychological Association Conference in May 2011 at Chicago, IL.
- 3 **Jacobson, N. C.**, & Vittengl, J. (2011, March). *Strengths and Weaknesses in Test-Taking: In What Ways Do Anxiety and Impulsivity Impact Test Performance?* Poster presentation before congress in March at Jefferson City, MO.
- 2 **Jacobson, N. C.**, Kramer, S., Tharp, A., Costa, S., & Hawley, P. (2010, June). *Testing under a Trance: The Effect of Post-Hypnotic Suggestion on Academic Performance*. Poster presentation at the Midwestern Psychological Association Annual Conference in June 2010 at Chicago, IL.
- 1 **Jacobson, N. C.**, Kramer, S., Tharp, A., Costa, S., & Hawley, P. (2010, May). *Testing under a Trance: The Effect of Post-Hypnotic Suggestion on Academic Performance*. Poster presentation at the Missouri Psychological Association's Annual Conference in May 2010 at Lake of the Ozarks, MO.

XX. BIBLIOGRAPHY

A. PEER-REVIEWED PUBLICATIONS IN PRINT, IN PRESS OR OTHER MEDIA

Total Number of Peer Reviewed Publications: 66

Total Number of 1st author: 24

Total Number of Last/Senior Author: 19

Google Scholar H-Index: 23; Number of Citations 1,615

* Denotes current or former students
Underline denotes first or last author

<u>NUMBER</u>	<u>PUBLICATION</u>
66	<u>Jacobson, N.C.</u> & Feng, B.Y.* (2022, In press). Digital Phenotyping of Generalized Anxiety Disorder: Using Artificial Intelligence to Accurately Predict Symptom Severity Using Wearable Sensors in Daily Life. <i>Translational Psychiatry</i> .
65	Nemesure, M.D.*, Streltsov, N., Schommer, L.M. Lekkas, D.*, Jacobson, N.C. & Bujarski, K.A. (2022, In press). Predictive Modeling of Suicidal Ideation in Patients with Epilepsy. <i>Epilepsia</i> .
64	Greenberg JL, Jacobson NC , Hoepfner SS, Bernstein EE, Snorrason I, Schwartzberg A, Steketee G, Phillips KA, Wilhelm S. (2022, In press). Early Response to Cognitive Behavioral Therapy for Body Dysmorphic Disorder as a Predictor of Outcomes. <i>Journal of Psychiatric Research</i> .
63	Zarate, D., Stavropoulos, V., Ball, M., de Sena Collier, G., <u>Jacobson, N.C.</u> (2022, In press). Exploring the Digital Footprint of Depression: A PRISMA Systematic Literature Review of the Empirical Evidence. <i>BMC Psychiatry</i> .
62	Marsch, L. A. Chen, C., Adams, S.R., Asyyed, A., Does, M. B. Hassanpour, S., Hichborn, E., Jackson-Morris, M., Jacobson, N.C. , Jones, H.K., Kotz, D., Lambert-Harris, CA., Li, Z., McLeman, B., Mishra, V., Stanger, C., Subramaniam, G., Wu, W., and Campbell, C.I. (2022, In press). The feasibility and utility of harnessing digital health to understand clinical trajectories in medication treatment for Opioid Use Disorder: D-TECT Study Design and Methodological Considerations. <i>Frontiers in Psychiatry</i> . https://doi.org/10.3389/fpsy.2022.871916
61	Hart, A., Rais, D., Prestele, E. & <u>Jacobson, N.C.</u> (2022, In press). Using Smartphone Sensor Paradata and Personalized Machine Learning Models to Infer Participants' Well-being: Ecological Momentary Assessment. <i>Journal of Medical Internet Research (JMIR)</i> . https://doi.org/10.2196/34015
60	Klein, R.J.*, Gyorda, J.A.*, & <u>Jacobson, N.C.</u> (2022, In press). Anxiety, depression, and substance experimentation in childhood. <i>PLOS One</i> . https://doi.org/10.1371/journal.pone.0265239
59	Heinz, M.V.*, Price, G.*, Ruan, F.*, Klein, R.J.*, Nemesure, M.*, Lopez, A.*, & <u>Jacobson, N.C.</u> (2022, In press). Association of Selective Serotonin Reuptake Inhibitor Use With Abnormal Physical Movement Patterns as Detected Using a Piezoelectric Accelerometer and Deep Learning in a Nationally Representative Sample of Noninstitutionalized Persons in the US. <i>JAMA Network Open</i> . https://doi.org/10.1001/jamanetworkopen.2022.5403

- 58 Klein, R.J.,* Nguyen, N.,* Gyorda, J.A.* & **Jacobson, N.C.** (2022, In press) Adolescent emotion regulation and future psychopathology: A prospective transdiagnostic analysis. *Journal of Research on Adolescence*. <https://doi.org/10.1111/jora.12743>
- 57 **Jacobson, N.C.**, Chen, W.* , Huang, R.* (2022, in press) Standalone Apps for Anxiety and Depression Show Promising Early Efficacy: A Commentary on Meta-Analytic Results. *Meta-Psychology*. doi: <https://doi.org/10.31234/osf.io/v48w9>
- 56 Fitzsimmons-Craft, E.E., Chan, W.S., Smith, A.C., Firebaugh, M., Fowler, L.A., DePietro, B., Topooco, N., Wilfley, D.E., Taylor, C.B., & **Jacobson, N.C.** (2022, In press). Effectiveness of a chatbot for eating disorders prevention: A randomized clinical trial. *International Journal of Eating Disorders*. <https://doi.org/10.1002/eat.23662>
- 55 Chan, W.W., Fitzsimmons-Craft, E.E., Smith, A.C., Firebaugh, M., Fowler, L.A., DePietro, B.; Topooco, N., Taylor, C.B., & **Jacobson, N.C.** (2022, In press). Challenges in Designing a Mental Health Prevention Chatbot: Lessons Learned from the Field. *Journal of Medical Internet Research (JMIR)*. <https://doi.org/10.2196/28003>
- 54 **Jacobson, N. C.** & Bhattacharya, S.* (2021, In press). Digital Biomarkers of Anxiety Disorder Symptom Changes Personalized Deep Learning Models Using Smartphone Sensors Accurately Predict Anxiety Symptoms from Ecological Momentary Assessments. *Behaviour Research and Therapy*. <https://doi.org/10.1016/j.brat.2021.104013>
- 53 Lekkas, D.*, Gyorda, J.A.*, Price, G.D.*,Wortzman, Z.* , & **Jacobson, N.C.** (2021, In press). The Language of the Times: Using the COVID-19 Pandemic to Assess the Influence of News Affect on Online Mental Health-Related Search Behavior across the United States. *Journal of Medical Internet Research (JMIR)*. <https://doi.org/10.2196/32731>
- 52 Ollier, J., Neff, S., Dworschak, C., Sejdiji, A., Santhanam, P., Keller, R., Xiao, G., Asisof, A., Rügger, D., Bérubé, C., Hilfiker, L., Neff, J., Yao, J., Alattas, A., Varela-Mato, V., Pitkethly, A., Dolores Vara, M., Herrero, R., M^a Baños, R., Parada, C., Sundaram Agatheswaran, R., Villalobos, V., Clare Keller, O., Sze Chan, W., Mishra, V., **Jacobson, N.C.**, Stanger, C., He, X., Von Wyl, V., Weidt, S., Haug, S., Patrick Schaub, M., Kleim, B., Barth, J., M. Witt, C., Scholz, U., Fleisch, E., von Wangenheim, F., Tudor Car, L., Müller-Riemenschneider, F., Hauser-Ulrich, S., Núñez Asomoza, A., Salamanca-Sanabria, A., Louise Mair, J., & Kowatsch, T., (2021, In press) Elena+ Care for COVID-19, A Pandemic Lifestyle Care Intervention: Intervention Design and Study Protocol. *Frontiers in Public Health*. <https://doi.org/10.3389/fpubh.2021.625640>
- 51 Lekkas, D.* , Price, G.* & **Jacobson, N.C.** (2021, In press). Using Smartphone App Use and Lagged-Ensemble Machine Learning for the Prediction of Work Fatigue and Boredom. *Computers in Human Behavior*. <https://doi.org/10.1016/j.chb.2021.107029>

- 50 Lekkas, D.*, Price, G.*, McFadden, J.* & **Jacobson, N. C.** (2021, In press). The Application of Machine Learning to Online Mindfulness Intervention Data: A Primer and Empirical Example in Compliance Assessment. *Mindfulness*. <https://doi.org/10.1007/s12671-021-01723-4>
- 49 Teepe, G.W., Fonseca, A.D., Kleim, B., **Jacobson, N.C.**, Sanabria, A.S., Car, L.T, Fleisch, E., & Kowatsch, T. (2021, In press). Just-in-time Adaptive Mechanisms of Popular Mobile Applications for Individuals with Depression: Systematic Review. *Journal of Medical Internet Research (JMIR)*. <https://doi.org/10.2196/29412>
- 48 Lekkas, D.*, Klein, R. J.*, & **Jacobson, N.C.** (2021, in press). Predicting Acute Suicidal Ideation on Instagram Using Ensemble Machine Learning Models. *Internet Interventions*. <https://doi.org/10.1016/j.invent.2021.100424>
- 47 **Jacobson, N.C.**, Evey, K.J., Wright, A.G.C, & Newman, M.G. (2021, in press). Integration of Discrete and Global Structures of Affect Across Three Large Samples: Specific Emotions Within-Persons and Global Affect Between-Persons. *Emotion*. <https://doi.org/10.1037/emo0001022>
- 46 Newman, M. G., Kanuri, N., Rackoff, G., **Jacobson, N.C.**, Jones, M., & Taylor, C. B. (2021, in press). A Randomized Controlled Feasibility Trial of Internet-Delivered Guided Self-Help for Generalized Anxiety Disorder (GAD) Among University Students in India. *Psychotherapy*, 58, 591-601. <https://doi.org/10.1037/pst0000383>
- 45 Lekkas, D.* & **Jacobson, N.C.** (2021, in press). Using Artificial Intelligence and Longitudinal Location Data to Differentiate Persons who Develop Posttraumatic Stress Disorder Following Childhood Trauma. *Scientific Reports*, 11. <https://doi.org/10.1038/s41598-021-89768-2>
- 44 Mack, D., DaSilva, A., Rogers, C., Hedlund, E. L., Murphy, E. I., Vojdanovski, V., Plomp, J., Wang, W., Nepal, S., Holtzheimer, P.E., Wagner, D.D., **Jacobson, N.C.**, Meyer, M.L., Campbell, A.T., & Huckins, J. F. (2021, in press). Mental Health and Behavior of College Students in the COVID-19 Pandemic: A Longitudinal Mobile Smartphone and Ecological Momentary Assessment Study - Part II. *Journal of Medical Internet Research (JMIR)*. <https://doi.org/10.2196/28892>
- 43 Yom-Tov, E., Lekkas, D.*, & **Jacobson, N. C.**. (2021, in press). Association of COVID19-induced Anosmia and Ageusia with Depression and Suicidal Ideation. *Journal of Affective Disorders Reports*. <https://doi.org/10.1016/j.jadr.2021.100156>
- 42 Sofis, M.J., Lemley, S.M., **Jacobson, N.C.**, & Budney, A.J. (2021, in press). Initial Evaluation of Domain-Specific Episodic Future Thinking on Delay Discounting and Cannabis Use. *Experimental and Clinical Psychopharmacology*. <https://doi.org/10.1037/pha0000501>

- 41 Shin, K., Newman, M.G., & **Jacobson, N.C.** (in press). Emotion Network Density as a Potential Clinical Marker: Comparison of Ecological Momentary Assessment and Daily Diary. *British Journal of Clinical Psychology*. <https://doi.org/10.1111/bjc.12295>
- 40 Fitzsimmons-Craft, E. E., Taylor, C. B., Newman, M. G., Zainal, N. H., Rojas-Ashe, E., Lipson, S. K., Firebaugh, M., Ceglarek, P., Topococo, N., **Jacobson, N. C.**, Graham, A. K., Kim, H. M., Eisenberg, D., & Wilfley, D. E. (in press). Harnessing mobile technology to reduce mental health disorders in college populations: A randomized controlled trial study protocol. *Contemporary Clinical Trials*. <https://doi.org/10.1016/j.cct.2021.106320>
- 39 Barr, P.J., Ryan, J., & **Jacobson, N.C.** (2021, In press). Precision Assessment of COVID-19 Phenotypes Using Large-Scale Clinic Visit Audio Recordings. *Journal of Medical Internet Research (JMIR)*. <https://doi.org/10.2196/20545>
- 38 **Jacobson, N.C.**, Lekkas, D.*, Huang, R.* , & Thomas, N.* (2021). Deep Learning Paired with Wearable Passive Sensing Data Predicts Deterioration in Anxiety Disorder Symptoms across 17-18 Years. *Journal of Affective Disorders*, 282, 104-111. <https://doi.org/10.1016/j.jad.2020.12.086>
- 37 Nemesure, M.D* , Heinz, M. V.* , Huang, R.* & **Jacobson, N. C.** (2021). Predictive Modeling of Psychiatric Illness using Electronic Medical Records and a Novel Machine Learning Approach with Artificial Intelligence. *Scientific Reports*. <https://doi.org/10.1038/s41598-021-81368-4>
- 36 **Jacobson, N.C.** & Nemesure, M.D.* (2021). Using Artificial Intelligence to Predict Change in Depression and Anxiety Symptoms in a Digital Intervention: Evidence from A Transdiagnostic Randomized Controlled Trial. *Psychiatry Research*. <https://doi.org/10.1016/j.psychres.2020.113618>
- 35 Meyer, N., Joyce, D. W., Karr, C., Dijk, D.J., **Jacobson, N.C.** & MacCabe, J. (2020, In press). The Temporal Dynamics of Sleep Disturbance and Psychopathology in Psychosis: A Digital Sampling Study. *Psychological Medicine*. <https://doi.org/10.1017/S0033291720004857>
- 34 **Jacobson, N.C.**, Yom-Tov, E., Lekkas, D.* , Heinz, M.* , Liu, L.* , Barr, P.J. (2020, In press). Impact of Online Mental Health Screening Tools on Help-Seeking, Care Receipt, and Suicidal Ideation and Suicidal Intent: Evidence from Internet Search Behavior in a Large U.S. Cohort. *Journal of Psychiatric Research*. <https://doi.org/10.1016/j.jpsychires.2020.11.010>
- 33 Dosovitsky, G., Pineda, B., Chang, C., **Jacobson, N.C.** & Bunge, E.L. (2020, In press). Artificial Intelligence Chatbot for Depression: Descriptive Study

- of Usage. *JMIR Formative Research*, 4, e17065.
<https://doi.org/10.2196/17065>
- 32 Newman, M. G., **Jacobson, N.C.**, Rackoff, G. N., Jones, M., & Taylor, C. B. (2020, In press). A randomized controlled trial of a smartphone-based application for the treatment of anxiety. *Psychotherapy Research*.
<https://doi.org/10.1080/10503307.2020.1790688>
- 31 Sofis, M. J., Pike, C.K, **Jacobson, N.C.**, Liu, L.* , Budney, A.J., Borodovsky, J.T. (2020, In press). Sifting Through the Weeds: Differential Relationships Between Cannabis Use Frequency Measures and Delay Discounting. *Addictive Behaviors*. <https://doi.org/10.1016/j.addbeh.2020.106573>
- 30 **Jacobson, N. C.** & Chung, Y.J.* (2020, In press). Passive Sensing of Prediction of Moment-to-Moment Depressed Mood among Undergraduates with Clinical Levels of Depression Sample using Smartphones. *Sensors*, 20, 3572. <http://dx.doi.org/10.3390/s20123572>
- 29 Nelson, B. W., Low, C., **Jacobson, N. C.**, Areán, P., Torous, J., & Allen, N.B.(2020). Guidelines for Wrist-Worn Consumer Wearables Assessment of Heart Rate in Biobehavioral Research. *npj Digital Medicine*, 3, 90. <https://doi.org/10.1038/s41746-020-0297-4>
- 28 **Jacobson, N.C.**, Lekkas, D.* , Price, G.P.* , Heinz, M.V.* , Song, M.* , O'Malley, A.J. & Barr, P.J. (2020). Flattening the Mental Health Curve: COVID-19 Stay-at-Home Orders Are Associated With Alterations in Mental Health Search Behavior in the United States, *JMIR Mental Health*, 7, e19347.
<http://dx.doi.org/10.2196/19347>
- 27 Lord, K.A.* , **Jacobson, N. C.**, Suvak, M., & Newman, M. G. (2020). Social Criticism Moderates the Relationship Between Anxiety and Depression 10 Years Later. *Journal of Affective Disorders*, 1, 15-22.
<http://dx.doi.org/10.1016/j.jad.2020.05.030>
- 26 **Jacobson, N. C.**, Summers B., & Wilhelm, S. (2020). Digital Biomarkers of Social Anxiety Symptom Severity: Digital Phenotyping using Passive Smartphone Sensors. *Journal of Medical Internet Research (JMIR)*, 22, e16875. <http://dx.doi.org/10.2196/16875>
- 25 **Jacobson, N.C.** Bentley, K. H., Walton, A., Wang, S.B., Fortgang, R.G., Millner, A.J. Coombs, G. C., Rodman, A.M., Coppersmith, D.D.L. (2020). Ethical Dilemmas Created by Mobile Health and Machine Learning within Research in Psychiatry. *Bulletin of the World Health Organization*, 98, 270-276. <http://dx.doi.org/10.2471/BLT.19.237107>
- 24 Wilhelm, S., Weingarden, H., Ladis, I. Braddick, V., Shin, J. & **Jacobson, N.C.** (2020). Cognitive Behavioral Therapy in the Digital Age: Presidential Address. *Behavior Therapy*, 1, 1-14.
<http://dx.doi.org/10.1016/j.beth.2019.08.001>

- 23 **Jacobson, N.C.** & O'Cleirigh, C.M. (2019, in press). Objective Digital Phenotypes of Worry Severity, Pain Severity, and Pain Chronicity in Persons Living with HIV. *The British Journal of Psychiatry*. <http://dx.doi.org/10.1192/bjp.2019.168>
- 22 **Jacobson, N.C.**, Weingarden, H., & Wilhelm, S. (2019). Using Digital Phenotyping to Accurately Detect Depression Severity. *Journal of Nervous and Mental Disease*, 207, 893-896. <http://dx.doi.org/10.1097/NMD.0000000000001042>
- 21 **Jacobson, N.C.**, Weingarden, H., & Wilhelm, S. (2019). Digital Biomarkers of Mood Disorders and Symptom Change. *Nature Partner Journal (npj): Digital Medicine*, 2, 1-2. <http://dx.doi.org/10.1038/s41746-019-0078-0>
- 20 Newman, M. G., **Jacobson, N. C.**, Zainal, N. H., Shin, K. E., Szkodny, L. E., Sliwinski, M. J. (2019). The effects of worry in daily life: An ecological momentary assessment study supporting the tenets of the Contrast Avoidance Model. *Clinical Psychological Science*, 7, 794-810. <http://dx.doi.org/10.1177/2167702619827019>
- 19 **Jacobson, N. C.**, Chow, S. M., & Newman, M.G. (2019). The Differential Time-Varying Effect Model (DTVEM): A tool for diagnosing optimal measurement and modeling intervals in intensive longitudinal data. *Behavior Research Methods*, 51, 295-315. <http://dx.doi.org/10.3758/s13428-018-1101-0>
- 18 **Jacobson, N. C.** & Roche, M. J. (2018). Current evolutionary adaptiveness of anxiety: Extreme phenotypes of anxiety predict increased fertility across multiple generations. *Journal of Psychiatric Research*, 106, 82-90. <http://dx.doi.org/10.1016/j.jpsychires.2018.10.002>
- 17 Roche, M. J, **Jacobson, N. C.**, & Phillips. J. (2018). Expanding the validity of the Level of Personality Functioning Scale Observer-Report and Self-Report versions across psychodynamic and interpersonal paradigms. *Journal of Personality Assessment*, 100, 571-580. <http://dx.doi.org/10.1080/00223891.2018.1475394>
- 16 Ji, L., Chow, S. M., Schermerhorn, A. C., **Jacobson, N. C.** & Cummings, M. (2018). Handling missing data in the modeling of intensive longitudinal data. *Structural Equation Modeling*, 25, 715-736. <http://dx.doi.org/10.1080/10705511.2017.1417046>
- 15 Roche, M.J. & **Jacobson, N.C.** (2018). Elections have consequences for student mental health: An accidental daily diary study. *Psychological Reports*. 122, 451–464. <http://dx.doi.org/10.1177/0033294118767365>
- 14 Newman, M.G., LaFreniere, L.S., & **Jacobson, N.C.** (2018). Relaxation-induced anxiety: Effects of peak and trajectories of change on treatment outcome for generalized anxiety disorder. *Psychotherapy Research*, 68, 616-629. <http://dx.doi.org/10.1080/10503307.2016.1253891>

- 13 **Jacobson, N. C.** & Newman, M. G. (2017). Anxiety and depression as bidirectional risk factors for one another: A meta-analysis of longitudinal studies. *Psychological Bulletin*, 143, 1155-1200. <http://dx.doi.org/10.1037/bul0000111> (Winner of the College of the Liberal Arts Raymond Lombra Graduate Student Award for the Excellence in Research in the Social Sciences, Pennsylvania State University; Winner Best Research Paper Award in Psychology, Pennsylvania State University).
- 12 Frank, B., **Jacobson, N. C.**, Hurley, L. & McKay, D (2017). A theoretical and empirical modeling of anxiety integrated with RDoC and temporal dynamics. *Journal of Anxiety Disorders*, 51, 39-46. <http://dx.doi.org/10.1016/j.janxdis.2017.09.002>
- 11 **Jacobson, N. C.**, Lord, K. A. *, & Newman, M. G. (2017). Perceived emotional social support in bereaved spouses mediates the relationship between anxiety and depression. *Journal of Affective Disorders*, 211, 83-91. <http://dx.doi.org/10.1016/j.jad.2017.01.011>
- 10 Roche, M. J., **Jacobson, N. C.**, & Roche, C. A. (2017). Teaching strategies for personality assessment at the undergraduate level. *Journal of Personality Assessment*, 99, 117-125. <http://dx.doi.org/10.1080/00223891.2016.1147450>
- 9 **Jacobson, N. C.** (2016). Current evolutionary adaptiveness of psychiatric disorders: Fertility rates, parent-child relationship quality, and psychiatric disorders across the lifespan. *Journal of Abnormal Psychology*, 125, 824-839. <http://dx.doi.org/10.1037/abn0000185>
- 8 Newman, M. G., **Jacobson, N. C.**, Erickson, T. M., & Fisher, A. J. (2016). Interpersonal problems predict differential response to cognitive versus behavioral treatment in a randomized controlled trial. *Behavior Therapy*, 48, 56-68. <http://dx.doi.org/10.1016/j.beth.2016.05.005>
- 7 Roche, M. J., **Jacobson, N. C.**, & Pincus, A. L. (2016). Using repeated daily assessments to uncover oscillating patterns and temporally-dynamic triggers in structures of psychopathology: Applications to the DSM-5 alternative model of personality disorders. *Journal of Abnormal Psychology*, 125, 1090-1102. <http://dx.doi.org/10.1037/abn0000177>
- 6 **Jacobson, N. C.**, Newman, M. G., & Goldfried, M. R. (2016). Clinical feedback about empirically supported treatments for obsessive-compulsive disorder. *Behavior Therapy*, 47, 75-90. <http://dx.doi.org/10.1016/j.beth.2015.09.003>
- 5 **Jacobson, N. C.** & Newman, M.G. (2016). Perceptions of close and group relationships mediate the relationship between anxiety and depression over a decade later. *Depression and Anxiety*, 33, 66-74. <http://dx.doi.org/10.1002/da.22402>

- 4 Newman, M. G., Castonguay, L.G., **Jacobson, N.C.** & Moore, G. (2015). Adult attachment as a moderator of treatment outcome for GAD: Comparison between CBT plus supportive listening and CBT plus interpersonal and emotional processing therapy. *Journal of Consulting and Clinical Psychology*, 83, 915-925. <http://dx.doi.org/10.1037/a0039359>
- 3 **Jacobson, N. C.**, & Newman, M. G. (2014). Avoidance mediates the relationship between anxiety and depression over a decade later. *Journal of Anxiety Disorders*, 28, 437-445. <http://dx.doi.org/10.1016/j.janxdis.2014.03.007>
- 2 **Jacobson, N. C.**, Kramer, S. L., Tharp, A. G., Harmon, K. A., Cejas, G. P., & Costa, S. C. (2013). Deficits of encoding in hypnosis: A result of altered state of awareness. *American Journal of Clinical Hypnosis*, 55, 360-369. <http://dx.doi.org/10.1080/00029157.2012.696286>
- 1 **Jacobson, N. C.** Kramer, S., Tharp, A., Costa, S., & Hawley, P. (2011). The effects of encoding under hypnosis and post-hypnotic suggestion on academic performance. *American Journal of Clinical Hypnosis*, 53, 247-254. <http://dx.doi.org/10.1080/00029157.2011.10404354> (Winner: **Clark L. Hull Award for Scientific Excellence in Writing on Experimental Hypnosis from the American Journal of Clinical Hypnosis**).

B. MANUSCRIPTS IN REVIEW

- | <u>NUMBER</u> | <u>PUBLICATION</u> |
|---------------|---|
| 13 | Jacobson, N.C. Price, G.* , Song, M.K.* , Wortzman, Z.* , Nguyen, N.D.* , & Klein, R.J.* Machine Learning Models Predicting Daily Affective Dynamics Via Personality and Psychopathology Traits. <i>Revise and Resubmit, Emotion</i> . |
| 12 | Greenberg, J.L., Jacobson, N.C. , Hoepfner, S.S., Bernstein, E.M., Snorrason, I., Steketee, G., Philips, K.A., & Wilhelm, S. Early Response to Cognitive Behavioral Therapy for Body Dysmorphic Disorder as a Predictor of Outcomes. <i>Revise and Resubmit, Journal of Psychiatric Research</i> . |
| 11 | Lekkas, D.* , Gyorda, J.A.* , & Jacobson, N.C. (2021, In press). The Temporal Dynamics of Physical Activity-Mediated Emotional Regulation in Adolescents with Anorexia Nervosa and Healthy Controls: Investigating the Impact of Physical Activity on Self-Report Emotion with Wearable Technology and Lag-Ensemble Machine Learning. <i>Revise and Resubmit, European Eating Disorders Review</i> . |
| 10 | Klein, R. J.* , Jacobson, N.C. & Robinson, M.D. A Psychological Flexibility Perspective on Well-Being Emotional Reactivity, Adaptive Choices, and Daily Experiences. <i>Revise and Resubmit, Emotion</i> . |
| 9 | Klein, R.J.* , Gyorda, J.* , Lekkas, D.* & Jacobson, N.C. Dysregulated Emotion and Substance Experimentation in Childhood: A Large Nationally |

Representative Cohort Study. *Revise and Resubmit, Substance Use and Misuse.*

- 8 **Jacobson, N.C.**, Abreu, V., & Limb, A.N. Using Wearables to Predict Clinical Anxiety: Digital Biomarkers of Sleep are able to Accurately Predict Anxiety Symptom Severity.
- 7 **Jacobson, N. C.** & Wilhelm, S. Large Open Trial of a Personalized Smartphone Intervention: Using Digital Phenotyping to Deliver Personalized Feedback on Maintenance Factors Reduce Anxiety and Depressive Affect in Daily Life.
- 6 **Jacobson, N.C.** & Newman, M.G. Anxious Moods as a Risk Factor for Depressed Moods: An Ecological Momentary Assessment of Those with Clinical Anxiety and Depression.
- 5 **Jacobson, N.C.** & Erickson, T. Low Emotion Differentiation as a Transdiagnostic Risk Factor: Quantitative and Qualitative Idiographic and Nomothetic Measurements in Predicting Anxiety, Depression, and Personality Pathology.
- 4 Zanail, H. & **Jacobson, N.C.** Reliability (or Lack Thereof) of Smartphone-Delivered Visual Dot Probe Attention Bias Indices. doi: <https://doi.org/10.31219/osf.io/gj4eq>
- 3 Wu, K.* ,McFadden, J.* & **Jacobson, N.C.** Determining Timing Effects of Microrandomized Trials Using Intensive Longitudinal Data and the Differential Time-Varying Effect Model. doi: <https://doi.org/10.31234/osf.io/bt93s>
- 2 Wang, Y.*, Abreu, V.*, Faddenn, J.*, Bhattacharya, S.*& **Jacobson, N.C.** Anxiety Disorders Strongly Predict an Increased Risk of Developing Eating Disorders: An Investigation of Bidirectional Sequential Comorbidity within a Large Nationally Representative Sample of Adults in the United States
- 1 Nemesure, M.D.* , Park, C.* , Morris, R., Chan, W. Fitzsimmons-Craft, E.E., Rackoff, C.G., Fowler, L., Taylor, C.B., & **Jacobson, N.C.** Evaluating the Effectiveness of a Single Session Digital Intervention for Body Image Concerns

C. BOOKS
NUMBER

- 1 **PUBLICATION**
Jacobson, N.C., Kowatsch, T. & Marsch, L.A.(Eds.) (2022, In press). Digital Therapeutics for Mental Health and Addiction: The State of the Science and Vision for the Future. Elsevier Press. ISBN: 9780323900454

D. BOOK CHAPTERS
NUMBER **PUBLICATION**

- 6 **Jacobson, N.C.**, Quist, R.E.* , Lee, C.M.* & Marsch, L.A.(2022, In press). Using Digital Therapeutics to Target Gaps and Failures in Traditional Mental Health and Addiction Treatments. In N.C. Jacobson, T. Kowatsch, & L.A. Marsch (Eds.). *Digital Therapeutics for Mental Health and Addiction: The State of the Science and Vision for the Future*. Elsevier Press. Elsevier Press. ISBN: 9780323900454
- 5 **Jacobson, N.C.**, Kowatsch, T. & Marsch, L.A.(2022, In press). A Vision for the Field of Digital Therapeutics. In N.C. Jacobson, T. Kowatsch, & L.A. Marsch (Eds.). *Digital Therapeutics for Mental Health and Addiction: The State of the Science and Vision for the Future*. Elsevier Press. Elsevier Press. ISBN: 9780323900454
- 4 Heinz, M.V.* , Price, G.* , Song, S.* , Bhattacharya, S.* & **Jacobson, N.C.** (2022, In press). Passive Sensing and Generalized Anxiety Disorder. In I.C. Passos, F.D. Rabelo-da-Ponte, & F. Kapczinski (Eds.), *Digital Mental Health - A Practitioner's Guide*: Springer Nature.
- 3 Heinz, M.V.* , Thomas, N.X.* , Nguyen, N.* , Griffin, T.* , & **Jacobson, N.C.** (2021, In press). Technological Advances in Clinical Assessment. In G. Asmundson & M. Bagby. *Comprehensive Clinical Psychology, 2nd Edition*. Elsevier. <https://doi.org/10.1016/B978-0-12-818697-8.00171-0>
- 2 Newman, M. G., **Jacobson, N. C.**, & Castonguay, L. (2014). Interpersonal and emotion-focused processing psychotherapy for generalized anxiety disorder. In P. M. Emmelkamp & T. Ehring (Eds.), *International Handbook of Anxiety Disorders: Theory, Research and Practice, Volume II*: Wiley Blackwell.
- 1 Szkodny, L. E., **Jacobson, N. C.**, & Newman, M. G. (2014). Generalized anxiety disorder. In G. O. Gabbard (Ed.), *Gabbard's Treatments of Psychiatric Disorders, 5th Edition*: American Psychiatric Publishing.

XXI. PERSONAL STATEMENT

My research focuses on both intensive longitudinal data and digital interventions for anxiety and depressive disorders, including delineating the longitudinal course of anxiety and depressive disorders and their symptoms, studying the dynamics in anxiety and depressive disorder symptoms using advanced modeling strategies, and using passive wearable and mobile sensor data to study anxiety and depressive disorders. In developing and programming my own smartphone application, I am conducting ongoing research in which I have collected the largest known sample of passive mobile sensing data to date, including over 10,000 participants across more than 100 countries. In this work, I have assessed hourly anxiety and depressive symptoms among persons with generalized anxiety and social anxiety disorder. Using my application, I utilize personalized models to give each user feedback on what is predicting their momentary anxiety and depressive symptom changes based on both ecological momentary assessments and passive sensing data. Early results suggest that feedback from these personalized models results in decreases in anxiety and depressive symptoms, as well as increases in heart rate variability, social contact, and physical activity over the course of one week alone. I also have a great deal of experience in developing, evaluating, and implementing novel and cutting-edge modeling time series techniques, including developing methods to estimate optimal time lags in

intensive longitudinal data as well as developing personally weighted deep learning time series models.

I have published 66 peer reviewed publications (24 first or sole-authored; 19 last/senior-authored), many of which appeared in high-impact journals (e.g., *Psychological Bulletin*, IF = 17.737; *British Journal of Psychiatry*, IF = 9.319; *Bulletin of the World Health Organization*, IF = 9.408). I am the PI of an active NIMH R01 award studying the use of deep learning to predict rapid symptom change in major depressive disorder using from smartphone and wearable sensor data.