

# Heidi S. Melbostad, PhD, MFT

## CURRICULUM VITAE

75 San Remo Dr.

South Burlington, VT 05403

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### EDUCATION

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<b>Ph.D.</b>	<b>University of Vermont</b>	2014-2020
<b>M.A.</b>	General/Experimental Psychology Primary Mentor: Sarah H. Heil, Ph.D.	
	<i>Dissertation:</i> A cost-effectiveness analysis of two contraceptive services interventions for women receiving medication for opioid use disorder and at risk of unintended pregnancy	
	<i>Master's Thesis:</i> Comparing family planning knowledge among females and males receiving opioid agonist treatment or seeking primary care services	
<b>M.S.</b>	<b>San Francisco State University</b>	2005-2007
	Clinical Psychology, Marriage and Family Therapy Training Program Primary Mentors: Dawn Terrell, Ph.D. and David Gard, Ph.D.	
	<i>Master's Thesis:</i> Military medical personnel and the psychological impact of combat exposure	
<b>B.A.</b>	<b>Kenyon College</b>	1995-1999
	Psychology, Neuroscience, and Sociology	

### CLINICAL AND RESEARCH EXPERIENCE

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Howard Center, Chittenden Clinic, Burlington, VT	2021-current
<i>Director.</i> A designated hub of Vermont's Hub and Spoke system, this federally certified facility provides outpatient treatment and psychopharmacology (methadone, buprenorphine, and naltrexone) for approximately 1000 individuals diagnosed with opioid use disorder. Essential functions include providing leadership and supervision to program departments and staff. Overseeing adherence to accreditation standards and state and federal regulatory requirements. Responsible for financial management of program, oversight of staff recruitment and retention and client engagement, maintain public relations, collaborate with key stakeholders, and promote values of respect, inclusion, diversity and the de-stigmatization of mental health and substance use disorders.	
University of Vermont, Department of Psychiatry, Burlington, VT	2021-current
<i>Research Assistant Professor.</i> Principal Investigator of NIH Centers of Biomedical Research Excellence (COBRE)-funded project exploring strategies to increase reproductive and sexual health services for people receiving medication treatment for opioid use disorder. Faculty member of Vermont Center on Behavior and Health, an interdisciplinary research center committed to investigating the intersection of behavior patterns and risk for chronic disease and premature death.	
University of Vermont, Vermont Center on Behavior and Health, Burlington, VT	2020-2021
<i>Postdoctoral Fellow,</i> Department of Psychiatry, NIDA T32 funded. Mentors: Sarah H. Heil, Ph.D. and Donald S. Shepard, Ph.D. (Brandeis University) Principal Investigator of Health Resources and Service Administration (HRSA)-funded translational research pilot project aimed at decreasing stimulant use among adults with opioid use disorder using smartphone-based delivery	

of contingency management. Conducted a financial evaluation of the effect of the COVID-19 pandemic on healthcare service delivery costs at the University of Vermont Medical Center. Co-managed multi-site NIH-funded research study examining differences in maternal, fetal, and neonatal outcomes of different treatment approaches for pregnant women with opioid use disorder. Identified strategies to expand access of contraceptive services to women with opioid and other substance use disorders.

University of Vermont, Vermont Center on Behavior and Health, Burlington, VT 2014-2020

*Predoctoral Fellow*, Department of Psychological Sciences.

Mentor: Sarah H. Heil, Ph.D.

Behavioral pharmacology research investigated opioid and other substance use disorders among reproductive-age women. Managed a 5-year, National Institute of Drug Abuse (NIDA)-funded randomized controlled trial aimed at increasing contraceptive use among women in treatment for opioid use disorder. Conducted cost and cost-effectiveness analyses of trial interventions and provided clinical oversight. Developed and executed a quality improvement project to assess barriers to contraceptive services. Investigated a novel strategy to objectively assess neonatal opioid withdrawal syndrome (NOWS) to improve maternal and child outcomes. This training was punctuated by a 1-year medical leave to manage unforeseen surgeries and treatments for cancer diagnosis.

Springfield Area Parent Child Center (SAPCC), Learning Together Program, Springfield, VT 2011-2014

*Mental Health Director*. The Learning Together program provides education, life skills, and parenting support to young mothers (16–24 years old). Created and supervised clinical program within a trauma-informed and harm reduction framework to support young women presenting with depression, anxiety, substance use disorders, histories of trauma, relational conflict, and personality disorders. Networked with Children’s Integrated Services (CIS), Building Bright Futures, pediatricians, primary care providers, and school-based staff to improve maternal and child outcomes for participants. Conducted staff trainings, provided community consultations and networked with community providers to coordinate services in greater Springfield area.

Health Care and Rehabilitation Services (HCRS), Early Childhood and Family Mental Health, Springfield, VT 2008-2011

*Marriage and Family Therapist*. HCRS is a community mental health organization that provides comprehensive services for children and adults living in rural Vermont communities. Addressed mental health needs of women and families with children zero to six years old. Provided home- and clinic-based services: conducted psychological assessments, individual, parent-child, and play psychotherapy, crisis interventions, and case management. Established multi-disciplinary collaborations with WIC, Reach-UP, the Department of Children and Families, Housing Department, pediatricians, psychiatrists, primary care providers, and childcare and education providers.

University of California, The Infant-Parent Program, Zuckerberg San Francisco General Hospital and Trauma Center, San Francisco, CA 2006-2007

*Practicum*. The Infant-Parent Program is a multifaceted, evidence-based mental health program serving a primarily low-income, culturally diverse population in the San Francisco Bay area. Provided diversity-informed, home-based services: infant-parent psychotherapy, child development training, and case management for families with children zero to three years old. Cases included failure to thrive, attachment complications, abuse and neglect, custody and placement concerns, and parents presenting with extreme psychological distress and substance use disorders.

San Francisco Unified School District, San Francisco, CA 2006

*Practicum*. The San Francisco Unified School District provides education for diverse community of children residing in San Francisco Bay Area. Provided year-long psychotherapy for children in the Special Education Program at Aptos Middle School referred for mental health services because of poor academic performance, behavioral issues, and emotional disturbances. Consulted with teachers and resource specialists.

San Francisco State University Psychology Clinic, San Francisco, CA 2005  
*Practicum*. The Psychology Clinic provides individual, long-term outpatient psychotherapy for the diverse San Francisco State University student body and Bay area community. Within a marriage and family therapy framework, addressed the mental, emotional, and behavioral health needs of adults with struggling with depression, anxiety, grief, substance use, and psychosis using evidence-based treatment strategies.

University of California, San Diego, Department of Surgery, San Diego, CA 2002-2005  
*Research Project Manager*. PI: Raul Coimbra, MD, PhD.  
Research focused on understanding the inflammatory pathways of sepsis and hemorrhagic shock to improve acute medical care provided to US military service members in combat areas. Designed, planned, and executed cellular and molecular experiments to examine the biological processes involved in inflammation and tissue injury. Analyzed data, presented results, and drafted manuscripts. Collaborated with US Navy to support development of novel resuscitation techniques.

Harvard University School of Medicine, Brigham and Women's Hospital, Boston, MA 2000-2001  
*Research Associate*. PI: Frank Kuo, MD, PhD.  
Cancer research focused on identifying human sarcomas utilizing novel genetic diagnostic techniques. Determined genetic sequences common to various types of sarcomas using DNA microarray to measure gene expression. Supported hospital pathologist in diagnostic laboratory testing of clinical samples.

Washington University School of Medicine, Department of Psychiatry, St. Louis, MO 1999-2000  
*Research Assistant*. PI: Steven Mennerick, PhD.  
Laboratory research concentrated on understanding impact of alcohol exposure on neural functioning. Conducted electrophysiology experiments to identify the interaction of alcohol and neurotransmitter pathway activation including GABAergic and glutamatergic neuron responses.

## **PUBLICATIONS**

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Heil, S., **Melbostad, H.** & Cioffredi, L. (in press). Neonatal abstinence syndrome. *The oxford handbook of opioids and opioid use disorder* (Chapter 35). New York: Oxford University Press.

**Melbostad, H.**, Wachtel, D., Lipke, K., Badger, G., Matusiewicz, A., Rey, C., MacAfee, L., Dougherty, A. & Heil, S. (2022). Preliminary side effect profile, safety, and tolerability of hormonal contraception among women receiving opioid-agonist therapy. *Contraception, 110:16-20*.

Oliver, A., **Melbostad, H.**, Matusiewicz, A., Rey, C., Badger, Heil, H. (2021). Correspondence of verified and self-reported prescription contraceptive use. Manuscript under review.

**Melbostad, H.**, Savage, P., Mahoney, K., Gaalema, D., Ades, P. & Shepard, D. (2021). Financial analysis of cardiac rehabilitation and the impact of COVID-19. *Journal of Cardiopulmonary Rehabilitation and Prevention, 41(5):308-314*.

Heil, H., **Melbostad, H.**, Matusiewicz, A., Rey, C., Badger, G., Shepard, D., Sigmon, S., MacAfee, L. & Higgins, S. (2021). Efficacy and cost-benefit analysis of contraceptive services with and without incentives among women with opioid use disorder and at high risk for unintended pregnancy: A randomized controlled trial. *JAMA Psychiatry, 78(10):1071-1078*.

**Melbostad, H.**, Badger, G., Rey, C., MacAfee, L., Dougherty, A., Sigmon, S. & Heil, S. (2020). Contraceptive knowledge among females and males receiving medication treatment for opioid use disorder compared to those seeking primary care. *Substance Use and Misuse, 55(14), 2403-2408*.

Rey, C., Badger, G., **Melbostad, H.**, Wachtel D., Sigmon, S., MacAfee, L., Dougherty, A. & Heil, S. (2020). Perceptions of long-acting reversible contraception among women receiving medication for opioid use disorder in Vermont. *Contraception*, *101*, 333-337.

Heil, S., **Melbostad, H.** & Rey, C. (2019). Innovative approaches to reduce unintended pregnancy and improve access to contraception among women who use opioids. *Preventive Medicine*, *128*, 105794.

Matusiewicz, A., **Melbostad, H.** & Heil, S. (2017). Knowledge of and concerns about long-acting reversible contraception among women in medication-assisted treatment for opioid use disorder. *Contraception*, *96*(5), 365-369.

Deree, J., **Melbostad, H.**, Loomis, W., Putnam, J. & Coimbra R. (2007). The effects of a novel resuscitation strategy combining pentoxifylline and hypertonic saline on neutrophil MAPK signaling. *Surgery*, *142*(2), 276-283.

Deree J., Lall, R., **Melbostad, H.**, Loomis, W., Hoyt, D. & Coimbra, R. (2006). Pentoxifylline attenuates stored blood-induced inflammation: A new perspective on an old problem. *Surgery*, *140*(2), 186-191.

Deree, J., Lall, R., **Melbostad, H.**, Grant, M., Hoyt, D. & Coimbra, R. (2006). Neutrophil degranulation and the effects of phosphodiesterase inhibition. *Journal of Surgical Research*, *133*(1), 22-28.

Coimbra, R., **Melbostad, H.**, Loomis, W.H., Porcides, R., Wolf, P., Tobar, M. & Hoyt D. (2006). LPS-induced acute lung injury is attenuated by phosphodiesterase inhibition: Effects on proinflammatory mediators, metalloproteinases, NF-kappaB, and ICAM-1 expression. *Journal of Trauma*, *60*(1), 115-125.

Coimbra, R., Porcides, R., Loomis, W., **Melbostad, H.**, Lall, R., Deree, J., Wolf, P. & Hoyt, D. (2006) HSPTX protects against hemorrhagic shock resuscitation-induced tissue injury: An attractive alternative to ringer's lactate. *Journal of Trauma*, *60*(1), 41-51.

Coimbra, R., **Melbostad, H.**, Loomis, W., Tobar, M. & Hoyt, D. (2005). Phosphodiesterase inhibition decreases nuclear factor-kappaB activation and shifts the cytokine response toward anti-inflammatory activity in acute endotoxemia. *Journal of Trauma*, *59*(3), 575-582.

Coimbra, R., Loomis, W., **Melbostad, H.**, Tobar, M., Porcides, R., Lall, R., Holbrook, T. & Hoyt D. (2005). Role of hypertonic saline and pentoxifylline on neutrophil activation and tumor necrosis factor-alpha synthesis: A novel resuscitation strategy. *Journal of Trauma*, *59*(2), 257-265.

Coimbra, R., Porcides, R., **Melbostad, H.**, Loomis, W., Tobar, M., Hoyt, D. & Wolf, P. (2005). Nonspecific phosphodiesterase inhibition attenuates liver injury in acute endotoxemia. *Surgery and Infection*, *6*(1), 73-85.

Coimbra, R., Loomis, W., **Melbostad, H.**, Tobar, M., Porcides, R. & Hoyt, D. (2004). LPS-stimulated PMN activation and proinflammatory mediator synthesis is downregulated by phosphodiesterase inhibition: Role of pentoxifylline. *Journal of Trauma*, *57*(6), 1157-1163.

Coimbra, R., **Melbostad, H.** & Hoyt, D.B. (2004). Effects of phosphodiesterase inhibition on the inflammatory response after shock: Role of pentoxifylline. *Journal of Trauma*, *56*(2), 442-449.

Moulder K.L., Fu, T., **Melbostad, H.**, Cormier, R., Isenberg, K., Zorumski, C. & Mennerick, S. (2002). Ethanol-induced death of postnatal hippocampal neurons. *Neurobiology of Disease*, *10*(3), 396-409.

Cormier, R., Mennerick, S., **Melbostad, H.** & Zorumski, C. (2001). Basal levels of adenosine modulate mGluR5 on rat hippocampal astrocytes. *Glia*, *33*(1), 24-35.

## PRESENTATIONS

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**Melbostad, H.,** Harfmann, R. & Heil, S. (2021). Psychosocial issues among women who use illicit drugs during their pregnancy. Abstract presented at the College on Problems of Drug Dependence (CPDD) annual conference, June 21-24, 2021.

**Melbostad, H.,** Wachtel, D., Lipke, K., Matusiewicz, A., Rey, C., MacAfee, L. & Heil, S. (2020). Safety and tolerability of hormonal contraception among women receiving medication treatment for opioid use disorder. Abstract presented at the National Title X Reproductive Health Conference (NRHC), August 11-12, 2020.

**Melbostad, H.,** Wachtel, D., Lipke, K., Matusiewicz, A., Rey, C., MacAfee, L. & Heil, S. (2020). Safety and tolerability of hormonal contraception among women receiving medication treatment for opioid use disorder. Abstract presented at the College on Problems of Drug Dependence (CPDD) annual conference, June 20-24, 2020.

**Melbostad, H.,** Badger, G., Rey, C., Sigmon, S., MacAfee, L., Dougherty, A. & Heil, S. (2019). A comparison of contraceptive knowledge among females and males receiving medication treatment for opioid use disorder or primary care services. Poster presented at the Society for Family Planning (SFP) annual conference, October 19-21, 2019.

**Melbostad, H.,** Shepard, D., Rey, C., Matusiewicz, A., Sigmon, S., MacAfee, L., Higgins, S. & Heil, H. (2019). Benefits and costs of an ongoing family planning intervention for women enrolled in medication treatment for opioid use disorder. Poster presented at the College on Problems of Drug Dependence (CPDD) annual conference, June 15-19, 2019.

**Melbostad, H.,** Matusiewicz, A., Rey, C., Badger, G., MacAfee, L., Sigmon, S., Higgins, S. & Heil, S. Increasing contraceptive use among women with opioid use disorder at risk for unintended pregnancy. Poster presented at the International Conference on Family Planning (ICFP), Kigali, Rwanda, November 12-15, 2018.

**Melbostad, H.,** Hack, M., MacAfee, L. & Heil, S. (2018). Contraceptive knowledge of patients receiving medication treatment for opioid use disorder. Poster presented at the American Society for Addiction Medicine (ASAM) annual conference, April 12-15, 2018.

**Melbostad, H.,** Wachtel, D. & Heil, S. (2017). Increasing contraceptive use among women with opioid use disorder at risk for unintended pregnancy. Poster presented at the Association for Addiction Professionals (NAADAC) annual conference, September 22-26, 2017.

**Melbostad, H.,** Matusiewicz, A. & Heil, S. (2017). Knowledge and attitudes about pregnancy prevention among women who are opioid-maintained. Poster presented at the College on Problems of Drug Dependence (CPDD) annual conference, June 17-22, 2017.

**Melbostad, H.,** Badger, G., Matusiewicz, A. & Heil, S. (2016). Contraceptive choice and rates of use among female smokers. Poster accepted for presentation at the Society for Research on Nicotine & Tobacco (SRNT) annual conference, March 8-11, 2017.

**Melbostad, H.,** Matusiewicz, A. & Heil, S. (2016). Sexual behavior, reproductive health, and contraceptive use among opioid-maintained women. Abstract accepted to the North American Forum on Family Planning, November 5-7, 2016.

**Melbostad, H.,** Matusiewicz, A., Wachtel, D. & Heil, S. (2016). Contraception use and pregnancy intention among opioid-maintained women. Poster presented at the American Psychological Association (APA) annual conference, August 4-7, 2016.

**Melbostad, H.,** Matusiewicz, A., Higgins, S. & Heil, S. (2015). Prenatal smoking and pregnancy intention. Poster presented at the Vermont Center on Behavior and Health (VCBH) annual conference, October 1-2, 2015.

**Melbostad H. & Heil, S. (2015).** Postpartum contraceptive behavior of opioid-maintained pregnant women. Poster presented at the College on Problems of Drug Dependence (CPDD) annual conference, June 13-18, 2015.

**Melbostad H. & Heil, S. (2014).** The prevalence of psychosocial issues in pregnant women who use illicit substances. Poster presented at the Vermont Center on Behavior and Health (VCBH) annual conference, October 1-2, 2014

## **HONORS AND AWARDS**

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University of Vermont Award for Outstanding Doctoral Dissertation, Notable Mention, 2020

International Women's and Children's Health and Gender Group Conference, Travel Award, 2020

International Women's and Children's Health and Gender Group Conference, Travel Award, 2019

University of Vermont, The Ronald Suiter Prize, 2018

American Society of Addiction Medicine (ASAM), NIDA Young Investigator Travel Award, 2018

International Women's and Children's Health and Gender Group Conference, Travel Award, 2017

NIAAA/NIDA, Travel Award for Early Career Investigators, 2016

American Psychological Association (APA), Student Travel Award, 2016

University of Vermont Graduate College, Mini Grant, 2016

Kenyon College, Biology Department Award, 1999

## **TRAINING AND SEMINARS**

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**The Inclusive STEM Teaching Project**, Boston University, Virtual, June 15 – August 1, 2021

**Principal Investigator (PI) Crash Course (Skills for Leaders)**, Columbia University, Virtual, June 10-11, 2021

**Enhancing Health Disparities Research Related to Substance Use and Addiction: Research Gaps and Opportunities**, National Institute of Drug Abuse, Office of Research Training, Diversity, and Disparities, Virtual, February 16-17, 2021

**Trauma-Informed Care in the Family Planning Setting**, National Clinical Training Center for Family Planning, Virtual, September 23, 2020

**Leadership Skills for Advancing Health Equity in Family Planning Services**, National Reproductive Health, Title X, Virtual, August 11, 2020

**Navigating the NIH Grant Writing**, Society of Family Planning, Los Angeles, CA, October 18, 2019

**Opioid Overdose Prevention Training**, Vermont Department of Health, Burlington, VT, August 11, 2019

**Motivational Interviewing**, American Society of Addiction Medicine (ASAM), San Diego, CA, April 12, 2018

**Introduction to Economic Evaluation Training and Workshop**, Center for Health Economics of Treatment Interventions for Substance Use Disorder, HCV, and HIV (CHERISH), Bethesda, MD, March 19, 2018

**Using Stata Effectively**, STATA Corporation, Washington, D.C., January 23-24, 2018

**REDCap Training**, University of Vermont, Burlington, VT, November 1, 2017

**Grant Writing and Career Development Workshop**, National Institute on Drug Abuse (NIDA), Montreal, Canada, June 17, 2017

**Integrating Screening, Brief Intervention, and Referral with Treatment in Diverse Health Care Settings**, American Psychological Association (APA), Denver, CO, August 5, 2016

**Multigroup and Multilevel Modeling with Cross-National Data: Applications, Issues, and Complexities**, American Psychological Association (APA), Denver, CO, August 5, 2016

## TEACHING EXPERIENCE

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**Co-Instructor.** University of Vermont, Organizational Psychology. 25 undergraduate students. Fall semester, 2018.

**Teaching Assistant.** University of Vermont, Introduction to Psychological Science. 250 undergraduate students. Spring semester, 2017.

## SERVICE ACTIVITIES

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### Ad Hoc Journal Reviewer:

*Addictive Behaviors*

*Drug and Alcohol Dependence*

*International Journal of Experimental Research and Public Health*

*Preventive Medicine*

*The Journal of Women's Health*

*The Journal of Maternal-Fetal & Neonatal Medicine*

*Substance Use and Misuse*

*Women's Health*

### Public Relations:

**Mercy Connections and Vermont Department of Corrections**, Burlington, VT 2020-Current  
Mentor for woman involved with criminal justice system

**Green Mountain Rock Climbing Center**, Quechee, VT 2010-2013  
Volunteer

**Nablus Smile Project**, Hebron, West Bank 2010  
Volunteer

**Health and Human Services, Child Welfare Services**, San Diego, CA 2003-2005  
Mentor for teen girl placed in Child Protective Services

**Polinsky Children's Center**, San Diego, CA 2002-2003  
Crisis counselor

**New Directions: Battered Women's Shelter**, Mt. Vernon, OH 1997-1999  
Crisis hotline attendant

## PROFESSIONAL AFFILIATIONS

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AcademyHealth

American Psychological Association (APA; Division 28)

American Society of Addiction Medicine (ASAM)

The College on Problems of Drug Dependence (CPDD)

The Association for Addiction Professionals (NAADAC)