

Heidi S. Melbostad, PhD

CURRICULUM VITAE

Vermont Center on Behavior and Health

University of Vermont

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EDUCATION

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

RESEARCH and CLINICAL EXPERIENCE

- University of Vermont, Vermont Center on Behavior and Health, Burlington, VT 2020-Current
Postdoctoral Fellow, Department of Psychiatry, NIDA T32 funded.
Mentors: Sarah H. Heil, Ph.D. and Donald S. Shepard, Ph.D. (Brandeis University)
Principal Investigator of HRSA-funded translational research pilot trial aimed at decreasing stimulant use among adults with opioid use disorder. Conducting an economic evaluation of the effect of the Covid-19 pandemic on delivery of cardiac rehabilitation services at the UVM Medical Center. Identifying implementation strategies to expand access of contraceptive services among women with opioid and other substance use disorders. Participating in multi-site study investigating the maternal and child outcomes of different opioid use disorder treatment choices among pregnant women.
- University of Vermont, Vermont Center on Behavior and Health, Burlington, VT 2014-2020
Predocctoral 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. Co-managed randomized clinical trial aimed at increasing contraceptive use among women in treatment for opioid use disorder and conducted an economic evaluation of the trial interventions. Identified barriers to contraceptive use among women with opioid use disorder. Investigated a novel strategy to objectively assess opioid-exposed neonates for neonatal abstinence syndrome (NAS). This training was punctuated by a 1-year medical leave to manage unforeseen surgeries and treatment 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). Conducted psychological assessments and individual and family psychotherapy, crisis intervention, and case management for young women presenting with various mental health issues including depression, anxiety, substance use disorders, histories of trauma, relational conflict, and personality disorders. Established multi-disciplinary collaborations, within a harm reduction framework, to support young mothers and their families. Conducted staff trainings and provided community consultations.
- Health Care and Rehabilitation Services (HCRS), Early Childhood and Family Mental Health, Springfield, VT 2008-2011
Mental Health Clinician. HCRS is a community mental health organization that provides comprehensive services for children and adults in rural Vermont communities. Addressed mental health needs of pregnant women (< 22 years old) and families with children zero to six years old by providing home- and clinic-based parent-child psychotherapy and case management.
- University of California, San Francisco, The Infant-Parent Program, SF General Hospital, San Francisco, CA 2006-2007
Intern. The Infant-Parent Program is a multifaceted mental health program serving a primarily low-income, ethnically diverse population in the San Francisco Bay area. Provided in home assessments, infant-parent psychotherapy, and child development education for families with children zero to three years old; cases included abused and neglected children, custody and placement concerns, and parents experiencing extreme psychological distress and substance use disorders.
- San Francisco Unified School District, San Francisco, CA 2006
Intern. The San Francisco Unified School District provides education for children residing in San Francisco. 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
Intern. The Psychology Clinic provides individual, long-term outpatient psychotherapy for the diverse San Francisco State University student body and Bay area community. Addressed mental health needs of adults struggling with depression, anxiety, relationship problems, and prodromal psychotic symptoms using empirically validated treatment interventions.
- University of California, San Diego, Department of Surgery, San Diego, CA 2002-2005
Research Coordinator. 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. 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 with DNA microarrays 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

Heil, H., **Melbostad, H.**, Matusiewicz, A., Rey, C., Badger, G., Shepard, D., Sigmon, S., MacAfee, L. & Higgins, S. (*Under review*). 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.

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.

IN PREPARATION

Melbostad, H., Wachtel, D., Lipke, K., Badger G., Matusiewicz, A., Rey, C., MacAfee, L., Dougherty, A. & Heil, S. (2021). Safety and tolerability of hormonal contraception among women with opioid use disorder.

Melbostad, H., Savage, P., Mahoney, K., Gaalema, D., Ades, P. & Shepard, D. (2021). Financial impact of COVID-19 on phase 2 cardiac rehabilitation service delivery

Melbostad, H., Harfmann, R. & Heil, S. (2021). Addressing psychosocial risk factors among pregnant women with substance use disorders.

PRESENTATIONS

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., Rey, C., Sigmon, S., MacAfee, L., Dougherty, A. & Heil, S. (2018). Contraceptive knowledge of men and women receiving medication-assisted treatment for opioid use disorder. Poster presented at the College on Problems of Drug Dependence (CPDD) annual conference, June 15-19, 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., Badger, G., Matusiewicz, A. & Heil, S. (2016). Contraceptive choice and rates of use among female smokers. Poster presented at the Vermont Center on Behavior and Health (VCBH) annual conference, October 6-7, 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., Badger, G., Matusiewicz, A. & Heil, S. (2016). Contraceptive use among female smokers. Poster presented at the College on Problems of Drug Dependence (CPDD) annual conference, June 11-16, 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

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

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

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

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

Women's Health

Volunteering

Mercy Connections and Vermont Department of Corrections, Burlington, VT. Mentor. 2020-current.

Dismas House, Burlington, VT. 2017-2018.

Health and Human Services, Child Welfare Services, San Diego, CA. Youth mentor. 2004-2005.

Polinsky Children's Center, San Diego, CA. Residential counselor. 2002-2003.

New Directions: Battered Women's Shelter, Mt. Vernon, OH. Crisis hotline. 1997-1998.

PROFESSIONAL AFFILIATIONS

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)