

## **Adam T. Hirsh, Ph.D.**

Curriculum Vitae

July 2021

Indiana University – Purdue University Indianapolis (IUPUI)

Department of Psychology

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### **ACADEMIC APPOINTMENTS**

**Associate Professor (with tenure)**, 2016-present

Department of Psychology, Purdue School of Science

Indiana University – Purdue University Indianapolis (IUPUI)

Indianapolis, IN

**Assistant Professor (tenure-track)**, 2010-2016

Department of Psychology, Purdue School of Science

Indiana University–Purdue University Indianapolis (IUPUI)

Indianapolis, IN

### **LICENSURE**

**Licensed Psychologist** (#20042477A), 2010-present

State of Indiana

### **EDUCATION**

**Postdoctoral Fellowship**, 2010

Rehabilitation Sciences Training Program

Department of Rehabilitation Medicine, University of Washington, Seattle, WA

**Doctor of Philosophy**, 2008

Clinical and Health Psychology (APA Accredited)

Area of Concentration: Clinical Health Psychology

University of Florida, Gainesville, FL

**Internship**, 2008

Clinical Psychology (APA Accredited)

VA Puget Sound Health Care System, Seattle, WA

**Master of Science**, 2004

Clinical and Health Psychology (APA Accredited)

University of Florida, Gainesville, FL

**Bachelor of Arts**, 2001

Psychology (Summa Cum Laude)

University of Central Florida, Orlando, FL

### **HONORS/AWARDS**

**Tenured Faculty Research Excellence Award**, School of Science, IUPUI, 2021

**Outstanding Young Alumnus Award**, University of Florida College of Public Health and Health Professions, 2018

**John C. Liebeskind Early Career Scholar Award**, American Pain Society, 2015

### **GRANT ACTIVITY**

**Title:** Predictive modeling for social needs in emergency department settings

**Role:** Co-Investigator

**Agency:** Agency for Healthcare Research and Quality (R01HS028008)

**Amount:** \$1,967,217

**Period:** 2021 – 2026

- Title:** **Erosive Tooth Wear perception among network dentists and patients, and experience among network patients**
- Role:** Co-Investigator
- Agency:** National Institute of Dental & Craniofacial Research, National Institutes of Health (UG3DE030087)
- Amount:** \$282,510
- Period:** 2021 – 2022
- Title:** **Developing an intervention to improve the delivery of targeted health messages about HIV prevention to Black Americans**
- Role:** Primary Mentor (mentee: Veronica Derricks)
- Agency:** Indiana Clinical and Translational Sciences Institute (KL2 Program, UL1TR002529)
- Amount:** \$174,029
- Period:** 2021 – 2023
- Title:** **Empowering Black patients with chronic pain to effectively engage in treatment decision-making**
- Role:** Principal Investigator
- Agency:** OVCR Research Support Grant Funds (RSFG)
- Amount:** \$34,850
- Period:** 2021 – 2022
- Title:** **Enhanced Mentoring Program with Opportunities for Ways to Excel in Research (EMPOWER)**
- Role:** Principal Investigator / Mentor (mentee: Veronica Derricks)
- Agency:** IUPUI Office of the Vice Chancellor for Research
- Amount:** \$2,000
- Period:** 2021 – 2022
- Title:** **"Their pain is not our pain": Unravelling how caregiver attention to pain and perspective taking contribute to racial disparities in child pain care**
- Role:** Co-Investigator
- Agency:** Research Foundation – Flanders (FWO)
- Amount:** €533,786
- Period:** 2021 – 2024
- Title:** **GET PrEPD: Goal Elicitation, Treatment Prioritization, & Electronically-Practiced Discussion**
- Role:** Principal Investigator
- Agency:** Racial Justice Research Fund of Indiana (AID2396)
- Amount:** \$15,776
- Period:** 2020-2021
- Title:** **Impact of Race-Related Injustice Appraisals on Morbidity in Youth with Sickle Cell Disease**
- Role:** Co-Investigator
- Agency:** Racial Justice Research Fund of Indiana
- Amount:** \$14,943
- Period:** 2020-2021
- Title:** **Examination of mechanisms contributing to impact of insomnia on chronic pain risk and outcomes in pediatric patients**
- Role:** Co-Investigator
- Agency:** Indiana Clinical and Translational Sciences Institute (UL1TR002529)
- Amount:** \$11,366
- Period:** 2020-2022
- Title:** **Exploring pain management decision making among anesthesia providers**

*Role:* Co-Investigator / Mentor  
*Agency:* The University of Alabama at Birmingham (UAB)  
*Amount:* \$8,100  
*Period:* 2020-2021

*Title:* **Unravelling how perspective-taking and associated verbal and non-verbal caregiver behaviours contribute to racial disparities in child pain care**

*Role:* Co-Investigator  
*Agency:* Bijzonder Onderzoeksfonds (BOF) – Special Research Fund of the Flemish Government  
*Amount:* €200,000  
*Period:* 2019-2023

*Title:* **Acceptance and Commitment Therapy for fatigue interference in metastatic breast cancer**

*Role:* Co-Investigator  
*Agency:* National Cancer Institute, National Institutes of Health (R01CA230542)  
*Amount:* \$1,707,498  
*Period:* 2019-2023

*Title:* **Examining the effects of contextually-imposed cognitive load on providers' chronic pain treatment decisions for racially and socioeconomically diverse patients**

*Role:* Primary Sponsor (student PI: Anastas)  
*Agency:* National Institute on Minority Health and Health Disparities, National Institutes of Health (F31MD014058)  
*Amount:* \$86,866  
*Period:* 2019-2021

*Title:* **GET PrEPD for Psychiatry: Goal elicitation, treatment prioritization, & electronically-practiced discussion for psychiatric care**

*Role:* Principal Investigator (Co-PI: Salyers)  
*Agency:* National Institute of Mental Health, National Institutes of Health (R34MH118314)  
*Amount:* \$696,275  
*Period:* 2018-2021

*Title:* **Communication and activation in pain to enhance relationships and treat pain with equity (COOPERATE)**

*Role:* Co-Investigator  
*Agency:* VA Health Services Research and Development (IIR17-032)  
*Amount:* \$1,100,000  
*Period:* 2018-2022

*Title:* **Virtual perspective-taking to reduce race and SES disparities in pain care**

*Role:* Principal Investigator  
*Agency:* National Institute on Minority Health and Health Disparities, National Institutes of Health (3R01MD008931-05S1; administrative supplement to parent project R01MD008931)  
*Amount:* \$100,000  
*Period:* 2018-2020

*Title:* **Virtual perspective-taking to reduce race and SES disparities in pain care**

*Role:* Principal Investigator  
*Agency:* National Institute on Minority Health and Health Disparities, National Institutes of Health (R01MD008931)  
*Amount:* \$1,839,221  
*Period:* 2014-2020

*Title:* **Acceptance and Commitment Therapy for symptom interference in metastatic breast cancer patients**

*Role:* Co-Investigator

*Agency:* Walther Cancer Foundation

*Amount:* \$150,000

*Period:* 2016-2019

*Title:* **Bringing pediatric pain management into the 21<sup>st</sup> century: Using learning health systems to engage patients and families in individualized pain assessment and treatment**

*Role:* Principal Investigator

*Agency:* Purdue Research Foundation (International Travel Grant)

*Amount:* \$830

*Period:* 2019

*Title:* **Development of a website tool for the evaluation of Erosive Tooth Wear perception among dentists and patients**

*Role:* Co-Investigator

*Agency:* GlaxoSmithKline (GSK Investigator-Sponsored Studies Programme)

*Amount:* \$250,834

*Period:* 2017-2019

*Title:* **On the pains of social standing: Understanding the role of patient social status on nurses' pain assessment and management practices**

*Role:* Consultant

*Agency:* Fundação para a Ciência e Tecnologia (FCT-Portugal) (PTDC/MHC-PSC/2041/2014)

*Amount:* €145,704

*Period:* 2016-2019

*Title:* **Race differences in the land of Lake Wobegon**

*Role:* Principal Investigator

*Agency:* Purdue Research Foundation (International Travel Grant)

*Amount:* \$1,115

*Period:* 2016

*Title:* **Symptom priorities of African-American chronic pain patients in primary care settings**

*Role:* Co-Investigator

*Agency:* IUPUI Department of Psychology

*Amount:* \$10,000

*Period:* 2015-2016

*Title:* **Examining the influence of Hispanic ethnicity and ethnic bias on providers' pain decisions**

*Role:* Primary Sponsor (student PI: Hollingshead)

*Agency:* American Psychological Association, Division 38 (Graduate Student Research Grant)

*Amount:* \$1,500

*Period:* 2015-2016

*Title:* **Perceptions of symptom importance and interference in metastatic breast cancer patients: Preparation for intervention development**

*Role:* Co-Investigator

*Agency:* Walther Cancer Foundation

*Amount:* \$50,000

*Period:* 2015-2016

*Title:* **The influence of patient race, provider bias, and contextual ambiguity on opioid treatment decisions**

*Role:* Principal Investigator

*Agency:* American Pain Society (Future Leaders in Pain Research Grant)  
*Amount:* \$20,000  
*Period:* 2013-2014

*Title:* **The influence of patient race, provider racial bias, and clinical ambiguity on opioid treatment decisions**

*Role:* Principal Investigator  
*Agency:* Purdue Research Foundation  
*Amount:* \$10,000  
*Period:* 2013

*Title:* **Pain treatment decisions: Influence of sex, race, and age**

*Role:* Co-Investigator  
*Agency:* National Institute of Dental and Craniofacial Research, National Institutes of Health (R01DE013208)  
*Amount:* \$1,046,327  
*Period:* 2009-2012

*Title:* **Provider decision-making for the management of comorbid chronic pain and depression: A novel Virtual Human technology investigation**

*Role:* Principal Investigator  
*Agency:* Indiana University (Collaborative Research Grant)  
*Amount:* \$51,675  
*Period:* 2011-2012

*Title:* **Influence of patient sex, race, and disability diagnosis on provider decision-making for pain**

*Role:* Principal Investigator  
*Agency:* Indiana University – Purdue University Indianapolis  
*Amount:* \$10,000  
*Period:* 2011-2012

*Title:* **Enhancement of clinical health psychology professions via training in non self-report methods of data collection**

*Role:* Co-Investigator  
*Agency:* U.S. Department of Health and Human Services, Health Resources and Services Administration (D76HP20905)  
*Amount:* \$56,003  
*Period:* 2010-2011

*Title:* **Research training in medical rehabilitation**

*Role:* Postdoctoral Fellow  
*Agency:* National Center for Medical Rehabilitation Research, National Institutes of Health (T32HD007424)  
*Amount:* Annual stipend, travel and support expenses  
*Period:* 2008-2010

*Title:* **Pain treatment decisions: Influence of sex, race, and age**

*Role:* Consultant  
*Agency:* National Institute of Dental and Craniofacial Research, National Institutes of Health (R56DE013208)  
*Amount:* \$323,454  
*Period:* 2008-2009

*Title:* **Pain assessment and clinical decision making**

*Role:* Principal Investigator  
*Agency:* National Institute of Neurological Disorders and Stroke, National Institutes of Health (F31NS049675)  
*Amount:* \$85,992  
*Period:* 2004-2007

**PEER-REVIEWED PUBLICATIONS** (\* indicates student/mentee)

- \*Procento, P.M., Rand, K.L., Stewart, J.C., & Hirsh, A.T. (in press). Pain catastrophizing mediates and moderates the link between acute pain and working memory. *The Journal of Pain*.
- \*Hollingshead, N.A., Vransy, E., Hsueh, L., Stewart, J.C., & **Hirsh, A.T.** (in press). Language use and generation status are associated with chronic pain differences in Mexican Americans. *Journal of Immigrant and Minority Health*.
- Hsueh, L., **Hirsh, A.T.**, Zapolski, T., de Groot, M., Mather, K.J., & Stewart, J.C. (in press). Influence of patient immigrant status on physician trainee diabetes treatment decisions: A virtual patient experimental study. *Journal of Behavioral Medicine*.
- Polanka, B.M., Kundu, S., So-Armah, K.A., Freiberg, M.S., Gupta, S.K., Zapolski, T.C.B., **Hirsh, A.T.**, Bedimo, R.J., Budoff, M.J., Butt, A.A., Chang, C.H., Gottlieb, S.S., Marconi, V.C., Womack, J.A., & Stewart, J.C. (in press). Insomnia symptoms and biomarkers of monocyte activation, systemic inflammation, and coagulation in HIV: Veterans Aging Cohort Study. *PLOS ONE*.
- \*Miller, M.M., Rumble, D.D., **Hirsh, A.T.**, Vervoort, T., Crosby, L.E., Madan-Swain, A., Lebensburger, J., Hood, A.M., & Trost, Z. (in press). Pain-related injustice appraisals in youth with sickle cell disease: A preliminary investigation. *Pain Medicine*.
- Shanahan, M.L., Fischer, I.C., **Hirsh, A.T.**, Stewart, J.C., & Rand, K.L. (in press). Hope, optimism, and clinical pain: A meta-analysis. *Annals of Behavioral Medicine*.
- Daenen, F., McParland, J., Baert, F., \*Miller, M.M., **Hirsh, A.T.**, & Vervoort, T. (in press). Child pain-related injustice appraisals mediate the relationship between just-world beliefs and pain-related functioning. *European Journal of Pain*.
- Baert, F., McParland, J., \*Miller, M.M., **Hirsh, A.T.**, Wallace, E., Dickson, A., Trost, Z., & Vervoort, T. (in press). Mothers' appraisals of injustice in the context of their child's chronic pain: An Interpretative Phenomenological Analysis. *European Journal of Pain*.
- Hsueh, L., **Hirsh, A.T.**, Maupome, G., & Stewart, J.C. (in press). Patient-provider language concordance and health outcomes: A systematic review, evidence map, and research agenda. *Medical Care Research and Review*.
- Mosher, C.E., Krueger, E., **Hirsh, A.T.**, Miller, K.D., Ballinger, T.J., Storniolo, A.M., Schneider, B.P., Newton, E.V., Champion, V.L., & Johns, S.A. (2020). Protocol of a randomized trial of Acceptance and Commitment Therapy for fatigue interference in metastatic breast cancer. *Contemporary Clinical Trials*, 98, 106168.
- Chinh, K., Secinti, E., Johns, S.A., **Hirsh, A.T.**, Miller, K.D., Schneider, B., Storniolo, A.M., Mina, L., Newton, E.V., Champion, V.L., & Mosher, C.E. (2020). Relations of mindfulness and illness acceptance to psychosocial functioning in metastatic breast cancer patients and their family caregivers. *Oncology Nursing Forum*, 47, 739-752.
- Hirsh, A.T.**, \*Anastas, T.M., \*Miller, M.M., Quinn, P.D., & Kroenke, K. (2020). Patient race and opioid misuse history influence provider risk perceptions for future opioid-related problems. *American Psychologist*, 75, 784-795.
- \*Anastas, T.M., \*Miller, M.M., \*Hollingshead, N.A., Stewart, J.C., Rand, K.L., & **Hirsh, A.T.** (2020). The unique and interactive effects of patient race, patient socioeconomic status, and provider attitudes on chronic pain care decisions. *Annals of Behavioral Medicine*, 54, 771-782.
- \*Miller, M.M., \*Lynch, M.K., **Hirsh, A.T.**, & Williams, A.E. (2020). "It all seems so unfair": Pain-related injustice appraisals in youth with chronic pain and their caregivers. *Pediatric Pain Letter*, 22, 28-32.
- Karos, K., McParland, J.L., Bunzil, S., Devan, H., **Hirsh, A.T.**, Kapos, F.P., Keogh, E., Moore, D., Tracy, L.M., & Ashton-James, C.E. (2020). The social threats of COVID-19 for people with chronic pain. *Pain*, 161, 2229-2235.
- \*Grant, A.D., \*Miller, M.M., \*Hollingshead, N.H., \*Anastas, T.M., & **Hirsh, A.T.** (2020). Intergroup anxiety in pain care: Impact on treatment recommendations made by White providers for Black patients. *Pain*, 161, 1264-1269.
- \*Miller, M.M., Williams, A.E., Zapolski, T.C.B., Rand, K.L., & **Hirsh, A.T.** (2020). Assessment and treatment recommendations for pediatric pain: The influence of patient race, patient gender, and provider pain-related attitudes. *The Journal of Pain*, 21, 225-237.
- Baert, F., \*Miller, M.M., Trost, Z., **Hirsh, A.T.**, McParland, J., De Schryver, M., & Vervoort, T. (2020). Parental injustice appraisals in the context of child pain: Examining the construct and criterion validity of the IEQ-Pc and IEQ-Ps. *The Journal of Pain*, 21, 195-211.
- Fischer, I.C., Shanahan, M.L., **Hirsh, A.T.**, Stewart, J.C., & Rand, K.L. (2020). The relationship between meaning in life and post-traumatic stress symptoms in US military personnel: A meta-analysis. *Journal of Affective Disorders*, 277, 658-670.

- Fischer, I.C., Feldman, D.B., **Hirsh, A.T.**, Stewart, J.C., & Rand, K.L. (2020). Psychological well-being and search for meaning: The moderating roles of hope, optimism, and the presence of meaning. *International Journal of Existential Positive Psychology, 8*, 1-12.
- \*Goldfarb, M.B., Maupomé, G. **Hirsh, A.T.**, Carvalho, J.C., Eckert, G.J., & Hara, A.T. (2020). Dentists clinical decision-making for erosive tooth wear: An online pilot study. *Journal of Dentistry, 100*, 103424.
- Hsueh, L., Wu, W., **Hirsh, A.T.**, de Groot, M., Mather, K.J., & Stewart, J.C. (2020). Undiagnosed diabetes among immigrant and racial/ethnic minority adults in the U.S.: National Health and Nutrition Examination Survey 2011-2018. *Annals of Epidemiology, 15*, 14-19.
- \*Goldfarb, M.B., Hara, A.T., **Hirsh, A.T.**, Carvalho, J.C., & Maupomé, G. (2020). Are dental patients able to perceive erosive tooth wear on anterior teeth? An internet-based survey assessing awareness and related action. *Journal of the American Dental Association, 151*, 10-15.
- Hirsh, A.T.**, \*Miller, M.M., \*Hollingshead, N.A., \*Anastas, T., Carnell, S.T., Lok, B.C., Chu, C., Zhang, Y., Robinson, M.E., Kroenke, K., & Ashburn-Nardo, L. (2019). A randomized controlled trial testing a virtual perspective-taking intervention to reduce race and SES disparities in pain care. *Pain, 160*, 2229-2240.
- \*Mehok, L.E., \*Miller, M.M., Trost, Z., Goubert, L., De Ruddere, L., & **Hirsh, A.T.** (2019). Pain intensity and attribution mediate the impact of patient weight and gender on activity recommendations for chronic pain. *Journal of Pain Research, 12*, 2743-2753.
- Mosher, C.E., Secinti, E., **Hirsh, A.T.**, Hanna, N., Einhorn, L.H., Jalal, S.I., Durm, G., Champion, V.L., & Johns, S.A. (2019). Acceptance and Commitment Therapy for symptom interference in advanced lung cancer and caregiver distress: A pilot randomized trial. *Journal of Pain and Symptom Management, 58*, 632-644.
- \*Anastas, T.M., \*Meints, S.M., Gleckman, A.D., & **Hirsh, A.T.** (2019). Social influences on peer judgements about chronic pain and disability. *The Journal of Pain, 20*, 698-705.
- Hsueh, L., Peña, J.M., **Hirsh, A.T.**, de Groot, M., & Stewart, J.C. (2019). Diabetes risk perception among immigrant and racial/ethnic minority groups in the U.S. *The Diabetes Educator, 45*, 642-651.
- Tometch, D.B., Mosher, C.E., **Hirsh, A.T.**, Rand, K.L., Johns, S.A., Matthias, M.S., Outcalt, S.D., Schneider, B.P., Mina, L., Storniolo, A.V., Newton, E.V., & Miller, K.D. (2018). Metastatic breast cancer patients' expectations and priorities for symptom improvement. *Supportive Care in Cancer, 26*, 3781-3788.
- \*Miller, M.M., \*Meints, S.M., & **Hirsh, A.T.** (2018). Catastrophizing, pain, and functional outcomes for children with chronic pain: a meta-analytic review. *Pain, 159*, 2442-2460.
- \*Meints, S.M., Mosher, C., Rand, K.L., Ashburn-Nardo, L., & **Hirsh, A.T.** (2018). An experimental investigation of the relationships among race, prayer, and pain. *The Scandinavian Journal of Pain, 18*, 545-553.
- \*Miller, M.M., \*Wuest, D., Williams, A.E., Scott, E.L., Trost, Z., & **Hirsh, A.T.** (2018). Injustice perceptions about pain: parent-child discordance is associated with worse functional outcomes. *Pain, 159*, 1083-1089.
- \*Stout, M.S., \*Meints, S.M., & **Hirsh, A.T.** (2018). Loneliness mediates the relationship between pain during intercourse and depressive symptoms among young women. *Archives of Sexual Behavior, 47*, 1687-1696.
- Macy, J.T., Moser, E., **Hirsh, A.T.**, Monahan, P., Eckert, G., & Maupomé, G. (2018). Factors associated with seeking preventive dental care: An integrative model exploration of behaviors in Mexican immigrants in Midwest America. *BMC Oral Health, 18*, 37.
- Hsueh, L., Vraney, E.A., Patel, J.S., \*Hollingshead, N.A., **Hirsh, A.T.**, de Groot, M., & Stewart, J.C. (2018). Associations between immigrant status and pharmacological treatments for diabetes in U.S. adults. *Health Psychology, 37*, 61-69.
- Mosher, C.E., Secinti, E., Li, R., **Hirsh, A.T.**, Bricker, J., Miller, K.D., Schneider, B., Storniolo, A.M., Mina, L., Newton, E.V., Champion, V.L., & Johns S.A. (2018). Acceptance and commitment therapy for symptom interference in metastatic breast cancer patients: a pilot randomized trial. *Supportive Care in Cancer, 26*, 1993-2004.
- \*Miller, M.M., Allison, A., Trost, Z., De Ruddere, L., Wheelis, T., Goubert, L., & **Hirsh, A.T.** (2018). Differential impact of patient weight on pain-related judgments about male and female chronic low back pain patients. *The Journal of Pain, 19*, 57-66.
- Mosher, C.E., Daily, S., Tometch, D., Matthias, M.S., Outcalt, S.D., **Hirsh, A.T.**, Johns, S.A., Rand, K., Schneider, B., Mina, L., Storniolo, A.M., Newton, E., & Miller, K. (2018). Factors underlying metastatic breast cancer patients' perceptions of symptom importance: A qualitative analysis. *European Journal of Cancer Care, 27*, e12540.
- Mosher, C.E., Tometch, D., **Hirsh, A.T.**, Rand, K., Johns, S.A., Matthias, M.S., Outcalt, S.D., Bricker, J., Schneider, B., Mina, L., Storniolo, A.M., Newton, E., & Miller, K. (2017). Symptom experiences in metastatic breast cancer patients: Relationships to activity engagement, value-based living, and psychological inflexibility. *Psycho-Oncology, 26*, 1944-1951.

- Adams, R.N., Mosher, C.E., Rand, K.L., **Hirsh, A.T.**, Monahan, P.O., Abonour, R., & Kroenke, K. (2017). The Cancer Loneliness Scale and Cancer-related Negative Social Expectations Scale: Development and validation. *Quality of Life Research, 26*, 1901-1913.
- Edmonds, B.T., McKenzie, F., Austgen, M.B., Ashburn-Nardo, L., Matthias, M.S., & **Hirsh, A.T.** (2017). Obstetrical providers' management of chronic pain in pregnancy: A vignette study. *Pain Medicine, 18*, 832-841.
- \*Meints, S.M., \*Stout, M., \*Abplanalp, S., & **Hirsh, A.T.** (2016). Pain-related rumination, but not magnification or helplessness, mediates race and sex differences in experimental pain. *The Journal of Pain, 18*, 332-339.
- \*Hollingshead, N.A., Matthias, M.S., Bair, M.J., & **Hirsh, A.T.** (2016). Healthcare providers' perceptions of socioeconomically disadvantaged patients with chronic pain: A qualitative investigation. *Journal of Health Disparities Research and Practice, 9*, 35-44.
- \*Hollingshead, N.A., \*Meints, S., \*Miller, M.M., Robinson, M.E., & **Hirsh, A.T.** (2016). A comparison of race-related pain stereotypes held by White and Black individuals. *Journal of Applied Social Psychology, 46*, 718-723.
- \*Miller, M.M., Scott, E.L., Trost, Z. & **Hirsh, A.T.** (2016). Perceived injustice is associated with pain and functional outcomes in children and adolescents with chronic pain: A preliminary investigation. *The Journal of Pain, 17*, 1217-1226.
- \*Meints, S.M., \*Miller, M.M., & **Hirsh, A.T.** (2016). Differences in pain coping between Black and White Americans: A meta-analysis. *The Journal of Pain, 17*, 642-653.
- \*Hollingshead, N.A., Vransy, E.A., Stewart, J.C., & **Hirsh, A.T.** (2016). Differences in Mexican Americans' prevalence of chronic pain and co-occurring analgesic medication and substance use relative to Non-Hispanic White and Black Americans: Results from NHANES 1999-2004. *Pain Medicine, 17*, 1001-1009.
- \*Hollingshead, N.A., Ashburn-Nardo, L., Stewart, J.C., & **Hirsh, A.T.** (2016). The pain experience of Hispanic Americans: A critical literature review and conceptual model. *The Journal of Pain, 17*, 513-528.
- Boissoneault, J., Mundt, J.M., Bartley, E.J., Wandner, L.D., **Hirsh, A.T.**, & Robinson, M.E. (2016). Assessment of the influence of demographic and professional characteristics on health care providers' pain management decisions using virtual humans. *Journal of Dental Education, 80*, 578-587.
- \*Hollingshead, N.A., \*Meints, S., \*Middleton, S.K., \*Free, C.A., & **Hirsh, A.T.** (2015). Examining influential factors in providers' chronic pain treatment decisions: A comparison of physicians and medical students. *BMC Medical Education, 15*, 164.
- Hirsh, A.T.**, \*Hollingshead, N.A., Ashburn-Nardo, L., & Kroenke, K. (2015). The interaction of patient race, provider bias, and clinical ambiguity on pain management decisions. *The Journal of Pain, 16*, 558-568.
- \*Meints, S.M., & **Hirsh, A.T.** (2015). In-vivo praying and catastrophizing mediate the race differences in experimental pain sensitivity. *The Journal of Pain, 16*, 491-497.
- Bartley, E.J., Boissoneault, J., Vargovich, A.M., Wandner, L.D., **Hirsh, A.T.**, Lok, B.C., Heft, M. W., & Robinson, M.E. (2015). The influence of healthcare professional characteristics on pain management decisions. *Pain Medicine, 16*, 99-111.
- \*Hollingshead, N.A., Matthias, M.S., Bair, M.J., & **Hirsh, A.T.** (2015). Impact of race and sex on pain management by medical trainees: A mixed-methods pilot study of decision-making and awareness of influence. *Pain Medicine, 16*, 280-290.
- Hirsh, A.T.**, \*Hollingshead, N.A., Bair, M.J., Matthias, M.S., & Kroenke, K. (2014). Preferences, experience, and attitudes in the management of chronic pain and depression: A comparison of physicians and medical students. *The Clinical Journal of Pain, 30*, 766-774.
- Molton, I.R., **Hirsh, A.T.**, Smith, A., & Jensen, M.P. (2014). Age and the role of restricted activities in adjustment to disability related pain. *Journal of Health Psychology, 19*, 1025-1034.
- Hirsh, A.T.**, \*Hollingshead, N.A., Matthias, M.S., Bair, M.J., & Kroenke, K. (2014). The influence of patient sex, provider sex, and sexist attitudes on pain treatment decisions. *The Journal of Pain, 15*, 551-559.
- Wandner, L.D., Heft, M.W., Lok, B.C., **Hirsh, A.T.**, George, S.Z., Horgas, A.L., Atchison, J.W., Torres, C.A., & Robinson ME. (2014). The impact of patients' gender, race, and age on health care professionals' pain management decisions: an online survey using virtual human technology. *International Journal of Nursing Studies, 51*, 726-733.
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#### **BOOK CHAPTERS**

- Price, D.D., **Hirsh, A.T.**, & Robinson, M.E. (2008). Psychological modulation of pain. In M.C. Bushnell, & A.I. Basbaum (Eds.), *The Senses: A Comprehensive Reference* (pp. 975-1002). The Netherlands: Elsevier.

#### **PRESENTATIONS (POSTER AND PAPER) AT PROFESSIONAL MEETINGS**

- \*Lynch Milder, M., McQuillan, M., **Hirsh, A.**, Honaker, S., & Williams, A. (2021, April). *Longitudinal study of adolescent sleep problems and chronic pain during treatment in a multidisciplinary pediatric pain clinic*. Poster presentation at the Annual Meeting of the Society of Pediatric Psychology. Conference converted to online format due to COVID-19. [poster award winner]
- \*Miller, M., Rumble, D, **Hirsh, A.**, Vervoort, T., Crosby, L., Madan-Swain, A., Lebensburger, J., Hood, A., Kissi, A., & Trost, Z. (2021, April). *Pain-related injustice appraisals and perceptions of health-related stigma and racial bias in youth with sickle cell disease*. Poster presentation at the Annual Meeting of the Society of Pediatric Psychology. Conference converted to online format due to COVID-19. [poster award winner]
- \*Mehok, L., \*Walsh, K., \*Miller, M., & **Hirsh, A.** (2020, April). *Exercise and dietary recommendations for women with chronic pain: What's weight and race got to do with it?* Accepted as an oral and poster presentation at the Annual Meeting of the Society of Behavioral Medicine. Conference cancelled due to COVID-19. [meritorious abstract winner]
- \*Lynch, M., \*Miller, M., Scott, E., Honaker, S., **Hirsh, A.**, Tolley, J., & Williams, A. (2020, March). *Relations between severity of pain and poor sleep in youth presenting to a pediatric chronic pain clinic*. Accepted as a poster presentation at the Annual Meeting of the Society of Pediatric Psychology. Conference converted to online format due to COVID-19.
- \*Procento, P., & **Hirsh, A.** (2020, March). *Pain and working memory deficits: the mediating and moderating role of pain catastrophizing*. Accepted as a poster presentation at the Annual Meeting of the American Psychosomatic Society, Long Beach, CA. Conference cancelled due to COVID-19.
- \*Anastas, T., \*Miller, M., Quinn, P., Kroenke, K., Carnell, S., Lok, B., & **Hirsh, A.** (2020, March). *Patient race and opioid misuse behaviors influence provider risk perceptions in chronic pain care*. Accepted as a poster

- presentation at the Annual Meeting of the American Psychosomatic Society, Long Beach, CA. Conference cancelled due to COVID-19.
- \*Miller, M.M., Carnell, S., Lok, B., Williams, A.E., & **Hirsh, A.T.** (2020, March). *REM strategies for pediatric opioid use: Providers are more likely to require urine drug screening for boys than girls with chronic pain*. Accepted as a poster presentation at the Annual Meeting of the American Psychosomatic Society, Long Beach, CA. Conference cancelled due to COVID-19.
- \*Grant, A., \*Anastas, T., \*Miller, M., Quinn, P., Kroenke, K., & **Hirsh, A.** (2020, March). *Opioid-related risk perceptions in chronic pain: influence of patient gender and misuse behaviors*. Accepted as a poster presentation at the Annual Meeting of the American Psychosomatic Society, Long Beach, CA. Conference cancelled due to COVID-19.
- Hsueh, L., **Hirsh, A.T.**, Zapolski, T.C.B., de Groot, M., Mather, K.J., & Stewart, J.C. (2020, March). *Influence of patient immigrant status on provider diabetes treatment decisions*. Accepted as an oral presentation at the Annual Meeting of the American Psychosomatic Society, Long Beach, CA. Conference cancelled due to COVID-19.
- Shell, A.L., Jackson, R.A., Patel, J.S., **Hirsh, A.T.**, Cyders, M.A., & Stewart, J.C. (2020, March). *Associations of somatic depressive symptoms with food attentional bias and eating behaviors*. Accepted as a poster presentation at the Annual Meeting of the American Psychosomatic Society, Long Beach, CA. Conference cancelled due to COVID-19.
- \*Miller, M.M., Williams, A.E., Scott, E.L., Trost, Z., & **Hirsh, A.T.** (2019, June). *The mediating role of anger in the relationship between pain-related injustice appraisals and pain outcomes in pediatric chronic pain*. Poster presentation at the International Symposium on Pediatric Pain, Basel, Switzerland.
- \*Goldfarb, M.B., Maupomé, G., **Hirsh, A.T.**, Carvalho, J.C., Eckert, G., & Hara A.T. (2019, June). *Erosive tooth wear (ETW) perception among U.S. dentists: A pilot study*. Poster presentation at the Annual Meeting of the International Association of Dental Research, Vancouver, BC, Canada.
- \*Goldfarb, M.B., Hara A.T., **Hirsh, A.T.**, Carvalho, J.C., Eckert, G., & Maupomé, G. (2019, June). *Patient perceptions of erosive tooth wear (ETW)*. Poster presentation at the Oral Epidemiology Forum, Satellite Symposium of the Annual Meeting of the International Association of Dental Research, Vancouver, BC, Canada.
- \*Grant, A., \*Anastas, T., \*Miller, M., \*Hollingshead, N., & **Hirsh, A.** (2019, April). *Effects of patient and provider race and socioeconomic status on pain treatment decisions and decision-making awareness*. Poster presentation at the Annual Meeting of the American Pain Society, Milwaukee, WI.
- \*Mehok, L., \*Meints, S., \*Miller, M., \*Kimberly, E., \*Walsh, K., & **Hirsh, A.** (2019, April). *The role of self-other comparisons in race differences in pain tolerance*. Poster presentation at the Annual Meeting of the American Pain Society, Milwaukee, WI.
- \*Procento, P., \*Miller, M., \*Anastas, T., \*Hollingshead, N., & **Hirsh, A.** (2019, April). *Sex differences in providers' pain treatment recommendations: The role of perceived exaggeration*. Poster presentation at the Annual Meeting of the American Pain Society, Milwaukee, WI.
- \*Anastas, T., \*Walsh, K., \*Miller, M., Trost, Z., Goubert, L., de Ruddere, L., & **Hirsh, A.** (2019, April). *The unique and interactive effects of patient race, patient weight, and provider implicit attitudes on chronic pain treatment decisions*. Poster presentation at the Annual Meeting of the American Pain Society, Milwaukee, WI.
- Hsueh, L., Wu, W., **Hirsh, A.**, de Groot, M., Mather, K., & Stewart, J. (2019, March). *Undiagnosed diabetes among immigrant and racial/ethnic minority adults in the U.S.: NHANES 2011-2016*. Oral presentation at the Annual Meeting of the American Psychosomatic Society, Vancouver, BC.
- \*Procento, P., \*Miller, M., \*Anastas, T., \*Hollingshead, N., & **Hirsh, A.** (2018, September). *Perceived exaggeration mediates the relationships of patient race and socioeconomic status with provider opioid recommendations in chronic pain*. Poster presentation at the 17<sup>th</sup> World Congress on Pain, Boston, MA.
- \*Miller, M., Williams, A., Scott, E., Trost, Z., & **Hirsh, A.** (2018, September). *General, personal, and pain-specific justice beliefs in the pediatric chronic pain experience*. Poster presentation at the 17<sup>th</sup> World Congress on Pain, Boston, MA.
- \*Anastas, T., \*Miller, M., \*Hollingshead, N., Carnell, S., Lok, B., & **Hirsh, A.** (2018, September). *Providers' implicit and explicit attitudes about race and socioeconomic status influence their pain treatment recommendations*. Poster presentation at the 17<sup>th</sup> World Congress on Pain, Boston, MA.
- \*Mehok, L., \*Meints, M., \*Miller, M., \*Hollingshead, N., \*Walsh, K., \*Kimberly, E., Ashburn-Nardo, L., & **Hirsh, A.** (2018, September). *Development and preliminary test of a measure assessing implicit beliefs about race differences in pain*. Poster presentation at the 17<sup>th</sup> World Congress on Pain, Boston, MA.

- Williams, A., \*Miller, M., Scott, E., Trost, Z., & **Hirsh, A.** (2018, September). *Elements of pain-related injustice differentially mediate the relationship between pain intensity and outcomes in children with chronic pain*. Poster presentation at the 17<sup>th</sup> World Congress on Pain, Boston, MA.
- \*Clark, E., \*Anastas, T., \*Miller, M., \*Hollingshead, N., Carnell, S., Lok, B., & **Hirsh, A.** (2018, September). *Compassion for patients mediates racial and socioeconomic differences in providers' pain treatment decisions*. Poster presentation at the 17<sup>th</sup> World Congress on Pain, Boston, MA.
- Hirsh, A.**, \*Anastas, T., \*Miller, M., & \*Hollingshead, N. (2018, April). *Preliminary results of a virtual perspective-taking intervention to reduce race and SES biases in pain treatment decisions*. Poster presentation at the 39<sup>th</sup> Annual Meeting of the Society for Behavioral Medicine, New Orleans, LA. [citation award winner]
- \*Hollingshead, N., Ashburn-Nardo, L., Stewart, J., Maupomé, G., & **Hirsh, A.** (2018, April). *Hispanic ethnicity, ethnic attitudes, and chronic pain care: A virtual patient investigation*. Poster presentation at the 39<sup>th</sup> Annual Meeting of the Society for Behavioral Medicine, New Orleans, LA.
- \*Miller, M., Williams, A., Scott, E., Trost, Z., & **Hirsh, A.** (2018, April). *Injustice perceptions predict future functioning in children with chronic pain: A 12-month follow-up*. Poster presentation at the 39<sup>th</sup> Annual Meeting of the Society for Behavioral Medicine, New Orleans, LA.
- \*Stout, M., \*Meints, S., & **Hirsh, A.** (2018, April). *Loneliness mediates the relationship between pain during intercourse and depressive symptoms*. Poster presentation at the 39<sup>th</sup> Annual Meeting of the Society for Behavioral Medicine, New Orleans, LA.
- Chinh, K., Secinti, E., Johns, S., **Hirsh, A.**, & Mosher, C. (2018, April). *Mindfulness and psychological adjustment in metastatic breast cancer patients and their family caregivers*. Oral presentation at the 39<sup>th</sup> Annual Meeting of the Society for Behavioral Medicine, New Orleans, LA.
- Hsueh, L., **Hirsh, A.**, Maupomé, G., & Stewart, J. (2018, March). *Patient-provider language concordance and health outcomes: A systematic review, conceptual framework, and research agenda*. Poster presentation at the 76<sup>th</sup> Annual Meeting of the American Psychosomatic Society, Louisville, KY.
- Vrany, E., Matthews, K., **Hirsh, A.**, Cyders, M., Clark, D., Shikany, J., Schreiner, P., & Stewart, J. (2018, March). *Diet composition factors as candidate mechanisms underlying the depression-to-future obesity association: The Coronary Artery Risk Development in Young Adults (CARDIA) study*. Oral presentation at the 76<sup>th</sup> Annual Meeting of the American Psychosomatic Society, Louisville, KY.
- \*Walsh, K., \*Miller, M., & **Hirsh, A.** (2017, October). *Observer empathy and patient weight influence pain attributions and treatment recommendations*. Poster presentation at the 88<sup>th</sup> Annual Meeting of the Indiana Academy of Social Sciences, Crawfordsville, IN.
- Baert, F., McParland, J., Trost, Z., **Hirsh, A.**, \*Miller, M., & Vervoort, T. (2017, July). *Parental appraisals of injustice in the context of pediatric pain: An interpretative phenomenological analysis*. Poster presentation at the 11<sup>th</sup> International Symposium on Pediatric Pain, Kuala Lumpur, Malaysia.
- \*Anastas, T., \*Hollingshead, N., \*Miller, M., Ashburn-Nardo, L., & **Hirsh, A.** (2017, May). *Patient race and socioeconomic status influence providers' recommendations about opioid therapy and workplace accommodations for chronic pain*. Poster and oral presentation at 36<sup>th</sup> Annual Meeting of the American Pain Society, Pittsburgh, PA.
- \*Hollingshead, N., Vrany, E., Hsueh, L., Stewart, J., & **Hirsh, A.** (2017, May). *Differences in the experience and management of chronic pain across first-, second-, and third-generation Mexican Americans: Results from NHANES 1999-2004*. Poster and oral presentation at 36<sup>th</sup> Annual Meeting of the American Pain Society, Pittsburgh, PA.
- \*Miller, M., Williams, A., Scott, E., Trost, Z., & **Hirsh, A.** (2017, May). *Pain-related injustice perception, but not catastrophizing, partially mediates the relationship between pain intensity and pain outcomes in children with chronic pain*. Poster and oral presentation at 36<sup>th</sup> Annual Meeting of the American Pain Society, Pittsburgh, PA.
- \*Meints, S., \*Wuest, D., \*Stout, M., \*Jackson, K., \*Abplanalp, S., & **Hirsh, A.** (2017, May). *The effects of active vs. passive prayer on experimental pain tolerance*. Poster presentation at 36<sup>th</sup> Annual Meeting of the American Pain Society, Pittsburgh, PA.
- \*Mehok, L., \*Miller, M., Trost, Z., Nowlin, L., Wheelis, T., de Ruddere, L., Goubert, L., & **Hirsh, A.** (2017, May). *Pain assessment and activity-related recommendations for chronic pain are influenced by patient gender and weight*. Poster presentation at 36<sup>th</sup> Annual Meeting of the American Pain Society, Pittsburgh, PA.
- Tometich, D., Mosher, C., Rand, K., & **Hirsh, A.** (2017, April). *Symptom clusters in metastatic breast cancer patients*. Poster presentation at the 38<sup>th</sup> Annual Meeting of the Society of Behavioral Medicine, San Diego, CA.

- Hsueh, L., Peña, J., **Hirsh, A.**, de Groot, M., & Stewart, J. (2017, April). *Diabetes risk perception among racial/ethnic minority and immigrant groups: Data from the National Health and Nutrition Survey*. Oral presentation at the 38<sup>th</sup> Annual Meeting of the Society of Behavioral Medicine, San Diego, CA.
- Vrany, L., Cyders, M., **Hirsh, A.**, & Stewart, J. (2017, April). *Depression and dietary factors implicated in obesity development: A review*. Poster presentation at the 38<sup>th</sup> Annual Meeting of the Society of Behavioral Medicine, San Diego, CA.
- Hirsh, A.**, \*Hollingshead, N., \*Meints, S., & \*Miller, M. (2016, September). *Race differences in the land of Lake Wobegon*. Poster session presented at the 16<sup>th</sup> World Congress on Pain, Yokohama, Japan.
- \*Miller, M., Scott, E., Trost, Z., & **Hirsh, A.** (2016, September). *Parent perceptions of injustice about their child's chronic pain*. Poster session presented at the 16<sup>th</sup> World Congress on Pain, Yokohama, Japan.
- Macy, J.T., Moser, B., **Hirsh, A.T.**, Monahan, P., Eckert, G., & Maupomé, G. (2016, September). *Factors contributing to preventive oral health behaviors among Mexican Americans living in Central Indiana*. In Session VIII: Chronic Disease. Paper presented at the 2016 Indiana Public Health Conference, Indianapolis, IN.
- \*Stout, M., \*Meints, S., \*Miller, M., & **Hirsh, A.** (2016, May). *The rumination component of catastrophizing mediates race differences in experimental pain tolerance*. Poster session presented at the 28<sup>th</sup> Annual Convention of the Association for Psychological Science, Chicago, IL.
- \*Hollingshead, N., Ashburn-Nardo, L., Stewart, J., Maupomé, G., & **Hirsh, A.** (2016, May). *Examining the influence of Hispanic ethnicity and ethnic bias on medical students' pain management decisions*. Poster session presented at the 35<sup>th</sup> Annual Scientific Meeting of the American Pain Society, Austin, TX.
- \*Meints, S., Gleckman, A., & **Hirsh, A.** (2016, May). *Social influence of disability judgments for patients with chronic pain*. Poster session presented at the 35<sup>th</sup> Annual Scientific Meeting of the American Pain Society, Austin, TX.
- \*Miller, M., Scott, E., Trost, Z., & **Hirsh, A.** (2016, May). *Injustice perceptions predict future functioning in children with chronic pain*. Poster session presented at the 35<sup>th</sup> Annual Scientific Meeting of the American Pain Society, Austin, TX.
- Valencia, C., Brzuzny, E., Carson, J., Curry, J., Felker, S., Stewart, J., **Hirsh, A.**, & Gurovich, A. (2016, May). *Relationship between central pain mechanisms and arterial blood pressure in pain free subjects*. Poster session presented at the 35<sup>th</sup> Annual Scientific Meeting of the American Pain Society, Austin, TX.
- \*Tometich, D., Mosher, C., Rand, K., & **Hirsh, A.** (2016, March). *Symptom importance in metastatic breast cancer patients*. Poster session presented at the 37<sup>th</sup> Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine, Washington, DC.
- Scott, E., Williams, A.E., \*Miller, M.M., & **Hirsh, A.T.** (2015, June). *The role of injustice in pediatric chronic pain patients: Mediation by anger and depression*. Poster session presented at the 10<sup>th</sup> International Symposium on Pediatric Pain, Seattle, WA.
- Allison, A., Wheelis, T., \*Miller, M., Nowlin, L., \*Hollingshead, N., de Ruddere, L., Goubert, L., **Hirsh, A.**, & Trost, Z. (2015, May). *Evidence of racial differences in perception of others' pain*. Poster session presented at the 27<sup>th</sup> Annual Convention of the Association for Psychological Science, New York, NY.
- Hirsh, A.**, \*Hollingshead, N., Ashburn-Nardo, L., & Kroenke, K. (2015, May). *Evidence of racial disparities in time spent with patients in pain*. Poster session presented at the 34<sup>th</sup> Annual Scientific Meeting of the American Pain Society, Palm Springs, CA.
- \*Miller, M., Scott, E., Franz, M., Trost, Z., & **Hirsh, A.** (2015, May). *The role of injustice in chronic pain in a clinical pediatric sample*. Poster session presented at the 34<sup>th</sup> Annual Scientific Meeting of the American Pain Society, Palm Springs, CA.
- \*Hollingshead, N., \*Vrany, E., Stewart, J., & **Hirsh, A.** (2015, May). *Differences in Mexican Americans' prevalence of chronic pain and co-occurring analgesic medication and substance use relative to Non-Hispanic White and Black Americans: Results from NHANES 1999-2004*. Poster session presented at the 34<sup>th</sup> Annual Scientific Meeting of the American Pain Society, Palm Springs, CA.
- \*Weppeler, R., \*Hollingshead, N., **Hirsh, A.** (2015, May). *The role of diet in the etiology and severity of Rheumatoid Arthritis: A prospective analysis of the NHANES I Epidemiological Follow-up Study (NHEFS) cohort*. Poster session presented at the 34<sup>th</sup> Annual Scientific Meeting of the American Pain Society, Palm Springs, CA.
- \*Meints, S., & **Hirsh, A.** (2015, May). *Examining race differences in pain-related coping: A meta-analysis*. Poster session presented at the 34<sup>th</sup> Annual Scientific Meeting of the American Pain Society, Palm Springs, CA.
- Wheelis, T., Allison, A., \*Miller, M., Nowlin, L., \*Hollingshead, N., de Ruddere, L., Goubert, L., **Hirsh, A.**, & Trost, Z. (2015, May). *Disparities in gender and weight bias toward chronic low back pain patients*. Poster session presented at the 34<sup>th</sup> Annual Scientific Meeting of the American Pain Society, Palm Springs, CA.

- Valencia, C., Wassink, M., **Hirsh, A.**, & Demchak, T. (2014, October). *Effects of light brushing on peripheral and central pain processing in Fibromyalgia patients and health controls*. Poster session presented at the 15<sup>th</sup> World Congress on Pain, Buenos Aires, Argentina.
- Hirsh, A.**, Hollingshead, N., Miller, M., Ashburn-Nardo, L., & Kroenke, K. (2014, April). *The influence of patient race, provider bias, and clinical ambiguity on pain assessment and treatment decisions*. Poster session presented at the 33<sup>rd</sup> Annual Scientific Meeting of the American Pain Society, Tampa, FL.
- \*Meints, S., \*Middleton, M., \*Miller, M., \*Najera, K., & **Hirsh, A.** (2014, May). *Racial differences in pain sensitivity are associated with the use of praying as a coping strategy*. Poster session presented at the 33<sup>rd</sup> Annual Scientific Meeting of the American Pain Society, Tampa, FL.
- \*Hollingshead, N., \*Meints, S., \*Middleton, S., \*Free, C., & **Hirsh, A.** (2014, May). *Influential factors in providers' chronic pain treatment decisions*. Poster session presented at the 33<sup>rd</sup> Annual Scientific Meeting of the American Pain Society, Tampa, FL.
- \*Miller, M., \*Hollingshead, N., \*Meints, S., \*Middleton, S., **Hirsh, A.** (2014, May). *Further psychometric evaluation of a measure assessing gender, race/ethnicity, and age expectations of pain*. Poster session presented at the 33<sup>rd</sup> Annual Scientific Meeting of the American Pain Society, Tampa, Florida.
- Valencia, C., Wassink, M., **Hirsh, A.**, & Demchak, T. (2014, May). *Effects of light brushing on peripheral and central pain processing of pain in patients with Fibromyalgia*. Poster session presented at the 33<sup>rd</sup> Annual Scientific Meeting of the American Pain Society, Tampa, FL.
- Allison, A., \*Hollingshead, N., de Ruddere, L., Goubert, L., **Hirsh, A.**, & Trost, Z. (2014, April). *Evidence of gender disparities in weight and beauty bias toward chronic pain patients*. Poster session presented at the 35<sup>th</sup> Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine, Philadelphia, PA.
- Kupper, A., Jensen, M., Gertz, K, Ehde, D., Dillworth, T., **Hirsh, A.**, Molton, I., Koenig, A., & Skidmore, J. (2014, April). *The beneficial side effects of hypnosis in Multiple Sclerosis and chronic pain patients*. Poster session presented at the 35<sup>th</sup> Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine, Philadelphia, PA.
- Hirsh, A.**, \*Hollingshead, N., Bair, M., Matthias, M., & Kroenke, K. (2013, May). *Does provider sexism contribute to sex/gender disparities in pain treatment decisions?* Poster session presented at the 32<sup>nd</sup> Annual Scientific Meeting of the American Pain Society, New Orleans, LA.
- \*Meints, S., \*Hollingshead, N., & **Hirsh, A.** (2013, May). *Factors influencing providers' treatment decisions for chronic low back pain*. Poster session presented at the 32<sup>nd</sup> Annual Scientific Meeting of the American Pain Society, New Orleans, LA.
- \*Hollingshead, N., Matthias, M., Bair, M., Middleton, S., & **Hirsh, A.** (2013, May). *Variability in pain treatment decisions and provider self-insight: A mixed methods investigation*. Poster session and platform presentation at the 32<sup>nd</sup> Annual Scientific Meeting of the American Pain Society, New Orleans, LA.
- Torres, C., Wandner, L., Alqudah, A., **Hirsh, A.**, Lok, B., & Robinson, M. (2013, May). *Pain assessment and treatment decisions among students in the United States and Jordan*. Poster session presented at the 32<sup>nd</sup> Annual Scientific Meeting of the American Pain Society, New Orleans, LA.
- Wandner, L.D., Heft, M.W., Lok, B., **Hirsh, A.T.**, George, S.Z., Horgas, A., Atchinson, J.W., Torres, C.A., & Robinson, M.E. (2012, August). *Healthcare professionals' pain assessment and treatment decisions using virtual human technology*. Poster session presented at the 14<sup>th</sup> World Congress on Pain, Milan, Italy.
- Wandner, L., **Hirsh, A.**, Torres, C., Lok, B., Heft, M., & Robinson, M. (2012, June). *Using virtual human technology to assess pain treatment decision biases*. Poster session presented at the 90<sup>th</sup> General Session & Exhibition of the International Association for Dental Research, Iguacu Falls, Brazil.
- Hirsh, A.**, \*Hollingshead, N., Wu, J., Bair, M., Matthias, M., & Kroenke, K. (2012, May). *Provider decision making in chronic pain management: Influence of sex, race, and depression*. Poster session presented at the 31<sup>st</sup> Annual Scientific Meeting of the American Pain Society, Honolulu, HI.
- \*Hollingshead, N., \*Neufer, A., & **Hirsh, A.** (2012, May). *An investigation of provider self-insight into their chronic pain management decisions*. Poster session presented at the 31<sup>st</sup> Annual Scientific Meeting of the American Pain Society, Honolulu, HI.
- Hirsh, A.**, Kratz, A., Molton, I., Ehde, D., & Jensen, M. (2011, May). *Pain acceptance is associated with key psychosocial outcomes in adults with multiple sclerosis and chronic pain*. Poster session presented at the 30<sup>th</sup> Annual Scientific Meeting of the American Pain Society, Austin, TX.

- \*Bockow, T.B., **Hirsh, A.T.**, & Jensen, M.P. (2011, March). *Catastrophizing, pain, and functioning in persons with a disability: Sex and diagnostic group differences*. Poster session presented at the 27<sup>th</sup> Annual Meeting of the American Academy of Pain Medicine, National Harbor, MD.
- Wandner, L.D., Stutts, L.A., Alqudah, A.F., Craggs, J.G., Scipio, C.D., **Hirsh, A.T.**, & Robinson, M.E. (2010, August). *Virtual human technology: Patient demographics and health care training factors in pain observation and treatment recommendations*. Poster session presented at the 13<sup>th</sup> World Congress on Pain, Montréal, Québec, Canada.
- Hirsh, A.**, Kratz, A., Engel, J., & Jensen, M. (2010, May). *Pain treatment in adults with cerebral palsy: Cross-validation and extension*. Poster session presented at the 29<sup>th</sup> Annual Scientific Meeting of the American Pain Society, Baltimore, MD.
- Stutts, L., **Hirsh, A.**, George, M., & Robinson, M. (2010, May). *The influence of patient characteristics on pain assessment: An investigation using virtual human technology*. Invited paper and poster session presented at the 29<sup>th</sup> Annual Scientific Meeting of the American Pain Society, Baltimore, MD.
- Hirsh, A.T.**, \*Gallegos, J.C., Gertz, K.J, Engel, J.M., & Jensen, M.P. (2010, April). *Symptom burden in adults with Cerebral Palsy*. Poster session presented at the 31<sup>st</sup> Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine, Seattle, WA.
- \*Braden, A.L., **Hirsh, A.T.**, Craggs, J.G., & Jensen, M.P. (2010, April). *Psychometric properties of the Community Integration Questionnaire in adults with disabilities*. Poster session presented at the 31<sup>st</sup> Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine, Seattle, WA.
- \*Bockow, T.B., **Hirsh, A.T.**, & Jensen, M.P. (2010, April). *Catastrophizing, pain, and functioning in persons with a disability: Sex and diagnostic group differences*. Poster session presented at the 31<sup>st</sup> Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine, Seattle, WA.
- Ehde, D.M., Jensen, M.P, Gertz, K., Stoelb, B.L., Dillworth, T.M., **Hirsh, A.T.**, Molton, I.R., & Kraft, G.H. (2010, February). *Effects of self-hypnosis training and cognitive restructuring on daily pain intensity and catastrophizing in individuals with multiple sclerosis and chronic pain: A pilot study*. Poster session presented at the Annual Meeting of the American Psychological Association Division of Rehabilitation Psychology, Tucson, AZ.
- Hirsh, A.**, Jensen, M., & Robinson, M. (2009, May). *Nurses' self-awareness of their decision-making process for pain assessment and treatment*. Poster session presented at the 28<sup>th</sup> Annual Scientific Meeting of the American Pain Society, San Diego, CA.
- Hirsh, A.**, Dillworth, T., Ehde, D., & Jensen, M. (2009, May). *Sex differences in the pain experience of persons with limb loss*. Poster session presented at the 28<sup>th</sup> Annual Scientific Meeting of the American Pain Society, San Diego, CA.
- Dillworth, T., **Hirsh, A.**, Ehde, D., & Jensen, M. (2009, May). *Differences in pain coping strategies and alcohol use among persons with spinal cord injuries*. Poster session presented at the 28<sup>th</sup> Annual Scientific Meeting of the American Pain Society, San Diego, CA.
- Hirsh, A.**, George, S., Fillingim, W., Perlstein, W., Manamalkav, S., & Robinson, M. (2008, May). *Investigating pain assessment and treatment disparities: A novel virtual human technology application*. Poster session presented at the 27<sup>th</sup> Annual Scientific Meeting of the American Pain Society, Tampa, FL.
- Hirsh, A.**, Manamalkav, S., & Robinson, M. (2008, May). *Virtual human technology as a novel approach to investigating pain-related clinical decision making*. Poster session presented at the 27<sup>th</sup> Annual Scientific Meeting of the American Pain Society, Tampa, FL.
- Bialosky, J., **Hirsh, A.**, Robinson, M., Galmish, R., & George, S. (2008, May). *A randomized study of the effects of catastrophizing on experimental pain*. Poster session presented at the 27<sup>th</sup> Annual Scientific Meeting of the American Pain Society, Tampa, FL.
- Robinson, M., Alqudah, A., **Hirsh, A.**, & Stutts, L. (2008, May). *Sex and race differences in rating others' pain, pain-related negative mood, pain coping, and need for medical treatment*. Poster session presented at the 27<sup>th</sup> Annual Scientific Meeting of the American Pain Society, Tampa, FL.
- Hirsh, A.T.**, George, S.Z., Bialosky, J.E., & Robinson, M.E. (2007, May). *Fear of pain, pain catastrophizing, and acute pain perception: Relative prediction and timing of assessment*. Poster session presented at the 26<sup>th</sup> Annual Scientific Meeting of the American Pain Society, Washington D.C.
- Hirsh, A.T.**, Waxenberg, L.B., Atchison, J.W., Gremillion, H.A., & Robinson, M.E. (2006, May). *Sex differences in the pain-mood-disability nexus*. Invited paper and poster session presented at the 25<sup>th</sup> Annual Scientific Meeting of the American Pain Society, San Antonio, TX.

- Hirsh, A.T.**, George, S.Z., Riley, J.L., & Robinson, M.E. (2005, April). *Sex differences and construct redundancy of the Coping Strategies Questionnaire-Catastrophizing Subscale*. Poster session presented at the 24<sup>th</sup> Annual Scientific Meeting of the American Pain Society, Boston, MA.
- Hirsh, A.T.**, Chung, S.K., O'Brien, E.M., George, S.Z., Cianfrini, L., Atchison, J.W., Gremillion, H., Waxenberg, L.B., & Robinson, M.E. (2004, May). *Does the Catastrophizing Subscale of the Coping Strategies Questionnaire provide unique information regarding the pain experience?* Poster session presented at the 2<sup>nd</sup> Joint Scientific Meeting of the American Pain Society and the Canadian Pain Society, Vancouver, British Columbia, Canada.
- Robinson, M.E., Brown, J.L., George, S.Z., Edwards, P.S., Atchison, J.W., **Hirsh, A.T.**, Waxenberg, L.B., Wittmer, V., & Fillingim, R.B. (2003, October). *A preliminary investigation of patient-centered outcomes in patients with chronic pain*. Paper presented at National Congress of Rehabilitation Medicine – American Society of Neurorehabilitation Joint Conference, Tucson, AZ.

### **INVITED LECTURES AND SYMPOSIA**

- Hirsh, A.T.** (2021, July). Moderator/Discussant for the Pain Research Forum (PRF) webinar series. *The cultural neuroscience of pain*. Speaker: L. Losin. International Association for the Study of Pain.
- Hirsh, A.T.** (2021, June). *Racial disparities in pain care: Causes, consequences, and correctives*. In T. Vervoort (Chair), Towards Understanding and Altering Disparities in Pain Care. Topical Workshop presented at the IASP 2021 Virtual World Congress on Pain.
- Hirsh, A.T.** (2021, March). Moderator/Discussant for the Pain In Child Health (PICH) webinar series. *It's not fair: Parental appraisals of injustice in response to their child's pain*. Speaker: F. Baert. Centre for Pediatric Pain Research, IWK Health Centre, Halifax, Nova Scotia.
- Hirsh, A.T.** (2019, November). *Racial and ethnic disparities in pain: Contributing factors and innovative solutions*. Presentation given at the PAINTalks Speaker Series, University of Alabama at Birmingham, Birmingham, AL.
- Hirsh, A.T.** (2019, October). *Racial and ethnic disparities in pain: Contributing factors and innovative solutions*. Workshop given at the Centro de Investigação e Intervenção Social (CIS-IUL), University Institute of Lisbon (ISCTE-IUL), Lisbon, Portugal.
- Hirsh, A.T.** (2018, September). *Using interactive Virtual Human technology to improve pain care for racial minority and low-income patients*. In F. Keefe (Chair), Virtual Reality and Chronic Pain: Discussion and Demonstration of the State of the Art and Future Directions. Symposium presented at the 17<sup>th</sup> World Congress on Pain, Boston, MA.
- Hirsh, A.T.** (2018, September). *Examining the effects of gender and weight on pain judgments*. In A. Hirsh (Chair), Sex and Gender Differences in Pain Perception and Experience. Symposium presented at the 17<sup>th</sup> World Congress on Pain, Boston, MA.
- Hirsh, A.T.** (2018, August). *Using Virtual Humans to reduce pain treatment disparities: Patient- and provider-focused interventions*. In S. Bernardes (Chair), Disparities in Pain Care: Psychosocial Accounts and Implications for Practice and Policy. Symposium presented at the 32<sup>nd</sup> Annual Conference of the European Health Psychology Society, Galway, Ireland.
- \*Baert, F., Trost, Z., **Hirsh, A.**, \*Miller, M., Vervoort, T., & De Schryver, M. (2018, August). *Child pain and well-being: The role of parental perceptions of injustice*. In L. Caes (Chair), Don't Forget the Parents: The Role of Parental Experience in Paediatric Chronic Conditions. Symposium presented at the 32<sup>nd</sup> Annual Conference of the European Health Psychology Society, Galway, Ireland.
- Hirsh, A.T.** (2018, June). *Using interactive virtual humans to improve pain care for racial minority and low-income patients*. Presentation given at the 13<sup>th</sup> Annual NIH Pain Consortium Symposium, Bethesda, MD.
- Hirsh, A.T.** (2018, May). *Using virtual humans to reduce pain treatment disparities: Patient- and provider-focused interventions*. In P. Mende-Siedlecki (Chair), Emerging Psychobiosocial Perspectives on Racial Disparities in Health Care. Symposium presented at the 30<sup>th</sup> Annual Convention of the Association for Psychological Science, San Francisco, CA.
- Hirsh, A.T.** (2018, March). *Using virtual humans to reduce pain treatment disparities: Patient- and provider-focused interventions*. In H. van Middendorp (Chair), Bringing Psychological Interventions into the Digital Era. Symposium presented at the 76<sup>th</sup> Scientific Meeting of the American Psychosomatic Society, Louisville, KY.
- Hirsh, A.T.** (2017, December). *Mechanism-based interventions to reduce race and SES disparities in pain care*. Presentation given at the ADDAPT (Addressing Disparities in the Distribution and Assessment of Pain and Its Treatments) workshop sponsored by ACTION (Analgesic, Anesthetic, and Addiction Clinical Trial Translations, Innovations, Opportunities, and Networks), Potomac, MD.



- Hirsh, A.T.** (2017, June). *Racial/ethnic disparities in pain: Contributing factors and innovative solutions*. Presentation given at the Anesthesiology & Perioperative Medicine Grand Rounds, Mayo Clinic, Rochester, MN.
- Hirsh, A.T.** (2017, May). *Racial & ethnic disparities in pain: Provider & contextual factors and potential solutions*. Presentation given for the Webinar Series: Decision Making and Pain hosted by The Translational Research Institute on Pain in Later Life (TRIPLL), Weill Cornell Medical College, New York, NY.
- Hirsh, A.T.** (2016, May). *Provider and contextual factors that contribute to pain-related disparities*. In C.A. Shankar (Chair), A Socioecological Model to Examine Disparities in Pain Care. Symposium presented at the 35<sup>th</sup> Annual Scientific Meeting of the American Pain Society, Austin, TX.
- Hirsh, A.T.** (2015, January). *A multi-methods research agenda to understand and reduce pain treatment disparities*. Presentation given at the Pain Lecture Series, Stanford School of Medicine, Palo Alto, CA.
- Hirsh, A.T.** (2014, October). *Using Virtual Human technologies to understand and inform pain judgments*. Presentation given at the Blaustein Pain Center Grand Rounds, Johns Hopkins School of Medicine, Baltimore, MD.
- Hirsh, A.T.** (2014, July). *Using Virtual Human technologies to understand and inform pain judgments*. Presentation given at the Interdisciplinary Pain Seminar, Cincinnati Children's Hospital Medical Center, Cincinnati, OH.
- Hirsh, A.T.** (2014, April). *Using Virtual Human technologies to understand and inform clinicians' treatment decisions*. In F.J. Keefe (Chair), Understanding and Treating Persistent Pain Using Virtual Technologies. Symposium presented at the 33<sup>rd</sup> Annual Scientific Meeting of the American Pain Society, Tampa, FL.
- Hirsh, A.T.** (2012, September). *Patient, provider, and contextual influences on pain decision-making*. Presentation given at the Work-in-Progress Seminar of the HSR&D Center of Excellence, Roudebush VA Medical Center, Indianapolis, IN.
- Hirsh, A.T.** (2012, October). *Patient, provider, and contextual factors that influence pain treatment decisions*. Presentation given at the Marian University Interdisciplinary Seminar Series, Indianapolis, IN.
- Merlo, L.J., Lehmkuhl, H., Faul, L.A., **Hirsh, A.**, & Geffken, G. (2006, March). *Intensive CBT for the treatment of panic disorder with co-morbid major depressive disorder*. In L.J. Merlo (Chair), Intensive CBT for Three Anxiety Disorders across the Life Span using Multiple Therapists. Symposium presented at the Annual Meeting of the Anxiety Disorders Association of America, Miami, FL.
- O'Brien, K.A., **Hirsh, A.**, Adkins, J., Storch, E., & Geffken, G. (2006, March). *Intensive Cognitive Behavioral Therapy (CBT) for an elderly patient with Obsessive Compulsive Disorder (OCD) and comorbid medical conditions*. In L.J. Merlo (Chair), Intensive CBT for Three Anxiety Disorders across the Life Span using Multiple Therapists. Symposium presented at the Annual Meeting of the Anxiety Disorders Association of America, Miami, FL.

## **TEACHING ACTIVITIES**

### **Instructor**

*Department:* Psychology, Indiana University–Purdue University Indianapolis

*Course:* Behavioral Medicine

*Level:* Graduate

*Department:* Psychology, Indiana University–Purdue University Indianapolis

*Course:* Intervention I: Counseling Approaches

*Level:* Graduate

*Department:* Psychology, Indiana University–Purdue University Indianapolis

*Course:* Abnormal Psychology

*Level:* Undergraduate

## **EDITORIAL ACTIVITIES**

### **Editorial Board**

Annals of Behavioral Medicine

The Journal of Pain

### **Guest Editor**

Frontiers in Virtual Reality: Virtual Reality in Medicine, special issue on *Novel Applications of Virtual and Mixed Reality in Pain Research and Treatment*, 2020-2021

**Reviewer**

Annals of Behavioral Medicine; Anxiety, Stress, & Coping; Archives of Physical Medicine and Rehabilitation; Arthritis Care & Research; Behavior Research and Therapy; British Journal of Health Psychology; Childhood Obesity; European Journal of Pain; Health Psychology; International Journal of Psychophysiology; Journal of Behavioral Medicine; Journal of Clinical Psychology in Medical Settings; Journal of General Internal Medicine; Journal of Racial and Ethnic Health Disparities; Journal of Rehabilitation Research and Development; Journal of Women's Health; Pain; Pain Medicine; Pain Practice; Pain Reports; Rehabilitation Psychology; The Clinical Journal of Pain; The Journal of Pain

**OTHER PROFESSIONAL POSITIONS AND MEMBERSHIPS****Chair**

Psychosocial Research Special Interest Group, American Pain Society, 2013-2015

**Executive Board**

Pain and Disparities Special Interest Group, American Pain Society, 2013-2017

**Member**

Analgesic, Anesthetic, and Addiction Clinical Trial Translations, Innovations, Opportunities, and Networks (ACTION) – Addressing Disparities in the Distribution and Assessment of Pain and its Treatments (ADDAPT) Work Group, U.S. Food and Drug Administration (FDA), 2017-present

Data and Safety Monitoring Boards, National Institutes of Health (NIH)

- *Corticostriatal Plasticity in the Transition to Chronic Pain: Effect of L-dopa* (2014-2017)
- *Effect of COMT Genetic Polymorphisms on Response to Propranolol Therapy in Temporomandibular Disorder (SOPPRANO)* (2014-present)
- *Investigation and Modulation of the Mu-Opioid Mechanisms in TMD (in vivo)* (2017-present)

Special Emphasis Panel, Urinary Stone Disease Research Network (U01), National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), National Institutes of Health (NIH), 2021

Review Panel, Israel Science Foundation (ISF), Personal Research Grants Program, 2021

Scientific Advisor (Advisee: V. Derricks), University of Utah Grant Writing Coaching Program, National Research Mentoring Network, National Institutes of Health (NIH), 2021

Review Panel, UK National Institute for Health Research (NIHR), Intervention for Innovation (i4i) Programme, 2019

Special Emphasis Panel (ZDE1 CF12), National Institute of Dental and Craniofacial Research (NIDCR), National Institutes of Health (NIH), 2019

Interagency Pain Research Coordinating Committee (IPRCC) – Disparities Work Group, National Institutes of Health (NIH), 2016-2018

Special Emphasis Panel (ZRG1 HDM-Z (02) M), Center for Scientific Review, National Institutes of Health (NIH), 2016

Special Emphasis Panel, Urinary Stone Disease Research Network (U01), National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), National Institutes of Health (NIH), 2016

Peer Review Panel, Pre-applications–Non-Opioid Pain Management (PRE–NOPM), Peer Reviewed Medical Research Program (PRMRP), Department of Defense Congressionally Directed Medical Research Programs (CDMRP), 2016

Review Committee, Collaboration in Translational Research (CTR) Pilot Grant Program, Indiana Clinical and Translational Sciences Institute (CTSI), 2016

Awards Committee, American Pain Society, 2016

Program Committee, Walther Center for Palliative Care Research and Education, Indiana University Cancer Center, 2014

Early Career Reviewer Program, Center for Scientific Review, National Institutes of Health, 2012-2015

International Association for the Study of Pain (IASP)

US Association for the Study of Pain (USASP)

Society of Behavioral Medicine (SBM)

American Psychosomatic Society (APS)

Association for Psychological Science (APS)