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 Nikhil.S.Padhye@uth.tmc.edu

## **EDUCATION**

<i>Degree</i>	<i>Institution (location)</i>	<i>Date</i>
Ph.D.	The University of Texas at Austin (Austin, Texas)	May, 1998
M.A.	The University of Texas at Austin (Austin, Texas)	May, 1994
B.Tech.	Indian Institute of Technology (Mumbai, India)	May, 1987
<i>Other Education</i>		
Internship	Laser Plasma Division, Bhabha Atomic Research Center (Mumbai, India)	June, 1990

## **PROFESSIONAL EXPERIENCE**

<i>Institution</i>	<i>Position title</i>	<i>Inclusive Dates</i>
Department of Physics, The University of Texas at Austin	Teaching Assistant	1991 – 1993
Department of Physics, The University of Texas at Austin	Assistant Instructor	1994
Institute for Fusion Studies, The University of Texas at Austin	Research Assistant	1994 – 1998
Bartol Research Institute, University of Delaware	Postdoctoral Fellow	1998 – 2001
Department of Physics, University of Delaware	Instructor	1999
School of Nursing, The University of Texas Health Science Center at Houston	Research Assistant Professor, Biostatistician	2001 – 2008
School of Nursing, The University of Texas Health Science Center at Houston	Research Associate Professor, Biostatistician	2008 – 2014
Cizik School of Nursing, The University of Texas Health Science Center at Houston	Associate Professor, Biostatistician	2014 – 2020

Cizik School of Nursing, The  
University of Texas Health Science  
Center at Houston

Professor, Biostatistician

2020 – present

### **HONORS & AWARDS** (past to current)

<i>Award</i>	<i>Awarding Organization</i>	<i>Date</i>
Invited Plenary Speaker	4th International Conference on Computer Applications in Electrical Engineering Recent Advances, Indian Institute of Technology, Roorkee, India	Feb 2010
Invited Contributor of Book Chapter in: Nursing, Caring, and Complexity Science, edited by Alice Davidson et al., published by Springer, New York.	AJN Book of the Year Winner in Professional Development and Issues	2011
First Place, Abstract for Podium Presentation, Hanneman, S. K., Kamat, S., Padhye, N. S., Whitehead, L. W., "Effect of Light at Night on Salivary Interleukin (IL)-6 Levels."	Cizik School of Nursing Research Day Organizing Committee	Apr 2017

### **GRANTS**

#### **Research Grants**

Heart Rate Variability During Transition to Extrauterine Life (R01 HD36767), NIH/NICHD, Co-Investigator (M. T. Verklan, PI), \$743,882, 1998 – 2003.

Age-related differences in female circadian temperature rhythms, PARTNERS Research Award, Biostatistician (S. K. Hanneman, PI), \$4,691, 2001.

Effects of noise on newborns < 1000 g birthweight (R01 HD42639), NIH/NICHD, Co-Investigator (R. E. Lasky, PI), \$972,267, 2004 – 2008.

Comparison of Circadian Biomarkers in Women: Pilot Study, PARTNERS Research Award, Biostatistician (S. K. Hanneman, PI), \$19,200, 2005.

Preventing Pressure Ulcers: A Multi-site RCT in Nursing Facilities (R01 NR009680), Co-Investigator (N. Bergstrom, PI), \$2,887,511, 2007-2011.

Heart Rate Variability and Cardiac Time Intervals in Neonates with Congenital Heart Anomalies, Howell Grant, Co-Investigator (M. T. Verklan, PI), \$25,000, 2009.

Symptom Management Program for Hemodialysis Patients, PARTNERS Research Grant, Biostatistician (F. Danquah, PI), 2011-2012.

Diabetes Go Mobile!- A Pilot Study Testing the Effect of a Behavioral Intervention with Smart Phone Based Self-Monitoring on Weight Loss, PARTNERS Research Grant, Biostatistician (J. Wang, PI). \$11,000, Sep 2011 – Sep 2013.

Implementing a Multiple Behavior Self-Monitoring Intervention within a Diabetes Education Program, 2013 American Association of Diabetes Educators/Sigma Theta Tau International Grant, Biostatistician (J. Wang, PI). \$6,000, May 2013 – Apr 2014.

Biobehavioral profiles of attachment to cats in community dwelling elderly, ISAZ/Waltham Research Grant, Biostatistician (S. Branson, PI), \$45,000, Sep 2014 – Aug 2016.

Cranial stimulation for symptom reduction in the palliative care setting, Center for Clinical and Translational Sciences Grant, Co-Investigator (D. Kang, PI), \$33,000, Jan 2015 – Dec 2015.

Interdisciplinary Nursing Quality Research Initiative, Robert Wood Johnson Foundation Grant, Statistician (D. Grimes, PI), Extension Period Apr 2015 – Jun 2015.

Biobehavioral Effects of Therapy Dog Visitation in Elderly Intensive Care Unit Patients: a Pilot and Feasibility Study, Human Animal Bond Research Initiative Foundation/Morris Animal Foundation, Biostatistician (S. Branson, PI), \$5,923, May 2015 – Oct 2016.

Development of a HIV Risk Estimator to Predict Imminent HIV Risk Behaviors in Homeless Youth (subcontract of R25 HD045810 from the University of California San Francisco Center for AIDS Prevention Studies (CAPS)), NIH/NICHD, Co-Investigator (D. Santa-Maria, PI), \$20,000, Sep 2016 – Aug 2017.

Everything in moderation? Dietary diversity, diet quality and cardiovascular health, Scientist Development Grant, American Heart Association, Co-Investigator (M. Otto, PI), \$230,000, Jul 2017 – Jun 2020.

Personalized Assessment of Pressure Ulcer Risk from Skin Temperature and Activity Monitoring, Speros Martel Endowment for the Aging Geriatric Nursing Research Scholarship, Principal Investigator, \$26,000, Nov 2017 to Nov 2019.

Development and Piloting of a Just-in-Time, Personalized HIV Prevention Intervention for Youth Experiencing Homelessness and Unstable Housing, PARTNERS Research Grant, Co-Investigator (D. Santa Maria, PI), \$100,000, Jul 2018 to Jun 2019.

Come As You Are - Assessing the Efficacy of a Nurse Case Management HIV Prevention and Care Intervention among Homeless Youth (R01 NR017837), NIH/NINR, Co-Investigator, (D. Santa Maria, PI), \$3,085,854, Jan 2019 to May 2023.

The Influence of Menstrual Cycle on Hippocampal Volume and Diffusivity, Dean's Research Award, Cizik School of Nursing, Co-Investigator, (S. Aggarwal, PI), \$50,000, Sep 2019 to Aug 2020.

Come As You Are – Assessing the Efficacy of a Nurse Case Management HIV Prevention and Care Intervention among Homeless Youth, NIH/NINR COVID-19 Supplemental Grant, Co-Investigator, (D. Santa Maria, PI), \$311,666.

An examination of associations between transition to practice measures and the COVID-19 pandemic, National Council of State Boards of Nursing (NCSBN), Co-Investigator, (M. Djukic, PI), \$235,975.

## **PUBLICATIONS**

### **Peer Reviewed Publications**

**Padhye, N. S.**, & Morrison, P. J. (1996). Fluid element relabeling symmetry. *Physics Letters A*, 219(5), 287–292. [https://doi.org/10.1016/0375-9601\(96\)00472-0](https://doi.org/10.1016/0375-9601(96)00472-0)

**Padhye, N. S.**, & Morrison, P. J. (1996). Relabeling symmetries in hydrodynamics and magnetohydrodynamics. *Plasma Physics Reports*, 22(10), 869–877.

**Padhye, N. S.**, & Horton, W. (1999). Alfvén–wave particle interaction in finite-dimensional self-consistent field model. *Physics of Plasmas*, 6(3), 970–975. <https://doi.org/10.1063/1.873337>

Hartlep, T., Matthaeus, W. H., **Padhye, N. S.**, & Smith, C. W. (2000). Magnetic field strength distribution in interplanetary turbulence. *Journal of Geophysical Research: Space Physics*, 105(A3), 5135–5139. <https://doi.org/10.1029/1999JA000223>

**Padhye, N. S.**, Smith, C. W., & Matthaeus, W. H. (2001). Distribution of magnetic field components in the solar wind plasma. *Journal of Geophysical Research: Space Physics*, 106(A9), 18635–18650. <https://doi.org/10.1029/2000JA000293>

**Padhye, N. S.** (2003). Multiple timescale statistical filter for corrupt RR-series. *Proceedings from the 25th Annual International Conference of the IEEE Engineering in Medicine and Biology Society* (pp. 2432–2434). <https://doi.org/10.1109/IEMBS.2003.1280407>

Verklan, M. T., & **Padhye, N. S.** (2004). Heart Rate Variability as an Indicator of Outcome in Congenital Diaphragmatic Hernia With and Without ECMO Support. *Journal of Perinatology*, 24(4), 247–251. <https://doi.org/10.1038/sj.jp.7211079>

Verklan, M. T., & **Padhye, N. S.** (2004). Spectral Analysis of Heart Rate Variability: An Emerging Tool for Assessing Stability During Transition to Extrauterine Life. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 33(2), 256–265. <https://doi.org/10.1177/0884217504263301>

Brazdeikis, A., Guzeldere, A. K., **Padhye, N. S.**, & Verklan, M. T. (2004). Evaluation of the performance of a QRS detector for extracting the heart interbeat RR time series from fetal magnetocardiography. *Proceedings from the 26th Annual International Conference of the IEEE Engineering in Medicine and Biology Society* (pp. 369–372). <https://doi.org/10.1109/IEMBS.2004.1403169>

**Padhye, N. S.**, Duan, Z., & Verklan, M. (2004). Response of fetal heart rate to uterine contractions. *Proceedings from the 26th Annual International Conference of the IEEE Engineering in Medicine and Biology Society* (pp. 3953–3955). <https://doi.org/10.1109/IEMBS.2004.1404104>

- Padhye, N. S.**, Brazdeikis, A., & Verklan, M. T. (2004). Monitoring fetal development with magnetocardiography. Proceedings from the 26th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (pp. 3609–3610). <https://doi.org/10.1109/IEMBS.2004.1404014>
- Padhye, N. S.**, Brazdeikis, A., & Verklan, M. T. (2006). Change in complexity of fetal heart rate variability. Proceedings from the 28th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (pp. 1796–1798). <https://doi.org/10.1109/IEMBS.2006.259533>
- Verklan, M. T., **Padhye, N. S.**, & Brazdeikis, A. (2006). Analysis of Fetal Heart Rate Variability Obtained by Magnetocardiography. The Journal of Perinatal & Neonatal Nursing, 20(4), 343–348.
- Khattak, A. Z., **Padhye, N. S.**, Williams, A. L., Lasky, R. E., Moya, F. R., & Verklan, M. T. (2007). Longitudinal assessment of heart rate variability in very low birth weight infants during their NICU stay. Early Human Development, 83(6), 361–366. <https://doi.org/10.1016/j.earlhumdev.2006.07.007>
- McCarley, C., Hanneman, S. K., **Padhye, N. S.**, & Smolensky, M. H. (2007). A pilot home study of temporal variations of symptoms in chronic obstructive lung disease. Biological Research for Nursing, 9(1), 8–20. <https://doi.org/10.1177/1099800407303501>
- Padhye, N. S.**, & Hanneman, S. K. (2007). Cosinor analysis for temperature time series data of long duration. Biological Research for Nursing, 9(1), 30–41. <https://doi.org/10.1177/1099800407303509>
- Brazdeikis, A., Vazquez-Flores, G. J., Tan, I. C., **Padhye, N. S.**, & Verklan, M. T. (2007). Acquisition of Fetal Magnetocardiograms in an Unshielded Hospital Setting. IEEE Transactions on Applied Superconductivity, 17(2), 823–826. <https://doi.org/10.1109/TASC.2007.897308>
- Padhye, N. S.**, Verklan, M., Brazdeikis, A., Williams, A. L., Khattak, A. Z., & Lasky, R. E. (2008). A comparison of fetal and neonatal heart rate variability at similar post-menstrual ages. Proceedings from the 30th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (pp. 2801–2804). <https://doi.org/10.1109/IEMBS.2008.4649784>
- Verklan, M. T., **Padhye, N. S.**, & Turner, N. C. (2008). Oxygen saturation levels in the first 30 minutes of life. Advances in Neonatal Care, 8(4), 231–236. <https://doi.org/10.1097/01.ANC.0000333711.91140.5f>
- Lasky, R. E., Parikh, N. A., Williams, A. L., **Padhye, N. S.**, & Shankaran, S. (2009). Changes in the PQRST Intervals and Heart Rate Variability Associated with Rewarming in Two Newborns Undergoing Hypothermia Therapy. Neonatology, 96(2), 93–95. <https://doi.org/10.1159/000205385>
- Padhye, N. S.**, Hamlin, S., Brazdeikis, A., & Hanneman, S. K. (2009). Cardiovascular impact of manual and automated turns in ICU. Proceedings from the 31<sup>st</sup> Annual International Conference of the IEEE Engineering in Medicine and Biology Society (pp. 1844–1847). <https://doi.org/10.1109/IEMBS.2009.5332599>
- Padhye, N. S.**, Cron, S. G., Gusick, G. M., Hamlin, S. K., & Hanneman, S. K. (2009). Randomization for clinical research: an easy-to-use spreadsheet method. Research in Nursing & Health, 32(5), 561–566. <https://doi.org/10.1002/nur.20341>

- Rapp, M. P., Bergstrom, N., & **Padhye, N. S.** (2009). Contribution of skin temperature regularity to the risk of developing pressure ulcers in nursing facility residents. *Advances in Skin & Wound Care*, 22(11), 506–513. <https://doi.org/10.1097/01.ASW.0000305496.15768.82>
- Padhye, N. S.**, Williams, A. L., Khattak, A. Z., & Lasky, R. E. (2009). Heart rate variability in response to pain stimulus in VLBW infants followed longitudinally during NICU stay. *Developmental Psychobiology*, 51(8), 638–649. <https://doi.org/10.1002/dev.20399>
- Zouridakis, G., Patidar, U., **Padhye, N. S.**, Pollonini, L., Passaro, A., & Papanicolaou, A. C. (2010). Spectral Power of Brain Activity Associated with Emotion — A Pilot MEG Study. In S. Supek & A. Sušac (Eds.), 17th International Conference on Biomagnetism Advances in Biomagnetism – Biomag2010 (pp. 354–357). Springer Berlin Heidelberg. [https://doi.org/10.1007/978-3-642-12197-5\\_83](https://doi.org/10.1007/978-3-642-12197-5_83)
- Padhye, N. S.**, Zhang, X., Rapp, M. P., & Bergstrom, N. (2011). Gabor filter for enhanced recognition of assisted turning events. Proceedings from the 33<sup>rd</sup> Annual International Conference of the IEEE Engineering in Medicine and Biology Society (pp. 7873–7876). <https://doi.org/10.1109/IEMBS.2011.6091941>
- Cohen, M. Z., Rozmus, C. L., Mendoza, T. R., **Padhye, N. S.**, Neumann, J., Gning, I., ... Cleeland, C. S. (2012). Symptoms and quality of life in diverse patients undergoing hematopoietic stem cell transplantation. *Journal of Pain and Symptom Management*, 44(2), 168–180. <https://doi.org/10.1016/j.jpainsymman.2011.08.011>
- Cahill, J. E., Lin, L., LoBiondo-Wood, G., Armstrong, T. S., Acquaye, A. A., Vera-Bolanos, E., ... **Padhye, N. S.** (2014). Personal health records, symptoms, uncertainty, and mood in brain tumor patients. *Neuro-Oncology Practice*, 1(2), 64–70. <https://doi.org/10.1093/nop/npu005>
- Yamine, L., Frazier, L., **Padhye, N. S.**, Burg, M. M., & Meininger, J. C. (2014). Severe depressive symptoms are associated with elevated endothelin-1 in younger patients with acute coronary syndrome. *Journal of Psychosomatic Research*, 77(5), 430–434. <https://doi.org/10.1016/j.jpsychores.2014.07.019>
- Mbue, N. D., Kang, D., Meininger, J. C., Young-McCaughan, S., **Padhye, N. S.**, Varghese, G. N., & Shank, T. C. (2014). The role of depression, stress, and self-management behaviors on metabolic control in patients with type 2 diabetes. *Journal of Medical Research and Practice*, 3(2), 35–46.
- Hamlin, S. K., Hanneman, S. K., **Padhye, N. S.**, & Lodato, R. F. (2015). Hemodynamic changes with manual and automated lateral turning in patients receiving mechanical ventilation. *American Journal of Critical Care: An Official Publication, American Association of Critical-Care Nurses*, 24(2), 131–140. <https://doi.org/10.4037/ajcc2015782>
- Leyden, K. N., Hanneman, S. K., **Padhye, N. S.**, Smolensky, M. H., Kang, D.-H., & Chow, D. S.-L. (2015). The Utility of the Swine Model to Assess Biological Rhythms and Their Characteristics during Different Stages of Residence in a Simulated Intensive Care Unit: A Pilot Study. *Chronobiology International*, 32(7), 980–993.

**Padhye, N. S.**, & Wang, J. (2015). Pattern of active and inactive sequences of diabetes self-monitoring in mobile phone and paper diary users. Proceedings from the 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (pp. 7630–7633).

<https://doi.org/10.1109/EMBC.2015.7320159>

Pollonini, L., **Padhye, N. S.**, Re, R., Torricelli, A., Simpson, R. J., & Dacso, C. C. (2015). Pulse transit time measured by photoplethysmography improves the accuracy of heart rate as a surrogate measure of cardiac output, stroke volume and oxygen uptake in response to graded exercise. *Physiological Measurement*, 36(5), 911–924. <https://doi.org/10.1088/0967-3334/36/5/911>

Otto, M. C. de O., **Padhye, N. S.**, Bertoni, A. G., Jacobs, D. R., & Mozaffarian, D. (2015). Everything in Moderation--Dietary Diversity and Quality, Central Obesity and Risk of Diabetes. *PloS One*, 10(10), e0141341. <https://doi.org/10.1371/journal.pone.0141341>

Helmreich, R. J., Meininger, J. C., **Padhye, N. S.**, & Verklan, M. T. (2015). The Impact of Obesity on Physiologic Indicators. *GSTF Journal of Nursing and Health Care (JNHC)*, 3(1). Retrieved from <http://dl6.globalstf.org/index.php/jnhc/article/view/1436>

Yennurajalingam, S., Tayjasanant, S., Balachandran, D., **Padhye, N. S.**, Williams, J. L., Liu, D. D., ... Bruera, E. (2016). Association between Daytime Activity, Fatigue, Sleep, Anxiety, Depression, and Symptom Burden in Advanced Cancer Patients: A Preliminary Report. *Journal of Palliative Medicine*, 19(8), 849-56. <https://doi.org/10.1089/jpm.2015.0276>

Lianyang L., Arakaki, X., Thao, T., Harrington, M., **Padhye, N. S.**, & Zouridakis, G. (2016). Brain activation profiles in mTBI: evidence from ERP activity of working memory response. Proceedings from the 38<sup>th</sup> Annual International Conference of the IEEE Engineering in Medicine and Biology Society (pp. 1862–1865). <https://doi.org/10.1109/EMBC.2016.7591083>

**Padhye, N. S.**, & Wang, J. (2016). Effect of self-monitoring clusters on weight and hemoglobin A1c. Proceedings from the 38<sup>th</sup> Annual International Conference of the IEEE Engineering in Medicine and Biology Society (pp. 275–278). <https://doi.org/10.1109/EMBC.2016.7590693>

Clowtis, L. M., Kang, D.-H., **Padhye, N. S.**, Rozmus, C., & Barratt, M. S. (2016). Biobehavioral Factors in Child Health Outcomes: The Roles of Maternal Stress, Maternal-Child Engagement, Salivary Cortisol, and Salivary Testosterone. *Nursing Research*, 65(5), 340–351. <https://doi.org/10.1097/NNR.0000000000000172>

Park, E., Meininger, J. C., Kang, D.-H., Gabriel, K. P., & **Padhye, N. S.** (2017). Association of cardiorespiratory fitness and adiposity with inflammatory biomarkers in young adults. *American Journal of Human Biology*, 29(3). <https://doi.org/10.1002/ajhb.22959>

Jang, A., Hwang, S.-K., **Padhye, N. S.**, & Meininger, J. C. (2017). Effects of Cognitive Behavior Therapy on Heart Rate Variability in Young Females with Constipation-predominant Irritable Bowel Syndrome: A Parallel-group Trial. *Journal of Neurogastroenterology and Motility*, 23(3), 435-445. <https://doi.org/10.5056/jnm17017>



Yammine, L., Frazier, L., **Padhye, N. S.**, Sanner, J. E., & Burg, M. M. (2017). Two-year prognosis after acute coronary syndrome in younger patients: Association with feeling depressed in the prior year, and BDI-II score and Endothelin-1. *Journal of Psychosomatic Research*, 99, 8–12.

<https://doi.org/10.1016/j.jpsychores.2017.05.017>

Branson, S. M., Boss, L., **Padhye, N. S.**, Trötscher, T., & Ward, A. (2017). Effects of Animal-assisted Activities on Biobehavioral Stress Responses in Hospitalized Children: A Randomized Controlled Study. *Journal of Pediatric Nursing*, 36, 84–91. <https://doi.org/10.1016/j.pedn.2017.05.006>

**Padhye, N. S.**, Bergstrom, N., Rapp, M. P., Etcher, L., & Redeker, N. S. (2017). Pressure ulcer risk detection from complexity of activity. *Proceedings from the 39<sup>th</sup> Annual International Conference of the IEEE Engineering in Medicine and Biology Society* (pp. 2304–2307).

<https://doi.org/10.1109/EMBC.2017.8037316>

Aggarwal, S. S., Ott, S. D., **Padhye, N. S.**, Meininger, J. C., & Armstrong, T. S. (2017). Clinical and demographic predictors of concussion resolution in adolescents: A retrospective study. *Applied Neuropsychology. Child*, 2017 Oct 23, 1–11. <https://doi.org/10.1080/21622965.2017.1381099>

Santa Maria, D., **Padhye, N. S.**, Yang, Y., Gallardo, K., Santos, G.-M., Jung, J., & Businelle, M. (2018). Drug use patterns and predictors among homeless youth: Results of an ecological momentary assessment. *The American Journal of Drug and Alcohol Abuse*, 44(5), 551–560.

<https://doi.org/10.1080/00952990.2017.1407328>

Yennurajalingam, S., Kang, D.-H., Hwu, W.-J., **Padhye, N. S.**, Masino, C., Dibaj, S. S., ... Bruera, E. (2018). Cranial Electrotherapy Stimulation for the Management of Depression, Anxiety, Sleep Disturbance, and Pain in Patients With Advanced Cancer: A Preliminary Study. *Journal of Pain and Symptom Management*, 55(2), 198–206. <https://doi.org/10.1016/j.jpainsymman.2017.08.027>

Santa Maria, D., **Padhye, N. S.**, Yang, Y., Gallardo, K., & Businelle, M. (2018). Predicting Sexual Behaviors Among Homeless Young Adults: Ecological Momentary Assessment Study. *JMIR Public Health and Surveillance*, 4(2), e39. <https://doi.org/10.2196/publichealth.9020>

Wang, J., Cai, C., **Padhye, N. S.**, Orlander, P., & Zare, M. (2018). A Behavioral Lifestyle Intervention Enhanced With Multiple-Behavior Self-Monitoring Using Mobile and Connected Tools for Underserved Individuals With Type 2 Diabetes and Comorbid Overweight or Obesity: Pilot Comparative Effectiveness Trial. *JMIR MHealth and UHealth*, 6(4), e92. <https://doi.org/10.2196/mhealth.4478>

Grimes, D. E., Thomas, E. J., **Padhye, N. S.**, Ottosen, M. J., & Grimes, R. M. (2018). Do State Restrictions on Advanced Practice Registered Nurses Impact Patient Outcomes for Hypertension and Diabetes Control? *The Journal for Nurse Practitioners*, 14(8), 620–625.

<https://doi.org/10.1016/j.nurpra.2018.06.005>

Branson, S. M., Boss, L., **Padhye, N. S.**, Gee, N. R., & Trötscher, T. T. (2019). Biopsychosocial Factors and Cognitive Function in Cat Ownership and Attachment in Community-dwelling Older Adults. *Anthrozoös*, 32(2), 267–282. <https://doi.org/10.1080/08927936.2019.1569908>



Branson, S., Boss, L., Hamlin, S., & **Padhye, N. S.** (2020). Animal-Assisted Activity in Critically Ill Older Adults: A Randomized Pilot and Feasibility Trial. *Biological Research for Nursing*, 22(3), 412–417.

<https://doi.org/10.1177/1099800420920719>

Aggarwal, S. S., Ott, S. D., **Padhye, N. S.**, & Schulz, P. E. (2020). Sex, race, ADHD, and prior concussions as predictors of concussion recovery in adolescents. *Brain Injury*, 34(6), 809–817.

<https://doi.org/10.1080/02699052.2020.1740942>

Suchting, R., Businelle, M. S., Hwang, S. W., **Padhye, N. S.**, Yang, Y., & Santa Maria, D. M. (2020). Predicting Daily Sheltering Arrangements among Youth Experiencing Homelessness Using Diary Measurements Collected by Ecological Momentary Assessment. *International Journal of Environmental Research and Public Health*, 17(18). <https://doi.org/10.3390/ijerph17186873>

Jackson, I., Rowan, P., Padhye, N., Hwang, L. Y., & Vernon, S. W. (2021a). Racial/ethnic differences in health-related quality of life among female breast cancer survivors: Cross-sectional findings from the Medical Expenditure Panel Survey. *Public Health*, 196, 74–81.

<https://doi.org/10.1016/j.puhe.2021.05.021>

Jackson, I., Rowan, P., Padhye, N., Hwang, L. Y., & Vernon, S. W. (2021b). Racial/ethnic differences in health-related quality of life among female breast cancer survivors: Cross-sectional findings from the Medical Expenditure Panel Survey. *Public Health*, 196, 74–81.

<https://doi.org/10.1016/j.puhe.2021.05.021>

Santa Maria, D., Lightfoot, M., Nyamathi, A., Businelle, M., Paul, M., Quadri, Y., Padhye, N., Jones, J., & Armijo, M. C. (2021). A Nurse Case Management HIV Prevention Intervention (Come As You Are) for Youth Experiencing Homelessness: Protocol for a Randomized Wait-list Controlled Trial. *JMIR Research Protocols*, 10(5), e26716. <https://doi.org/10.2196/26716>

Santa Maria, D., Padhye, N., Businelle, M., Yang, Y., Jones, J., Sims, A., & Lightfoot, M. (2021). Efficacy of a Just-in-Time Adaptive Intervention to Promote HIV Risk Reduction Behaviors Among Young Adults Experiencing Homelessness: Pilot Randomized Controlled Trial. *Journal of Medical Internet Research*, 23(7), e26704. <https://doi.org/10.2196/26704>

#### Non-Peer Reviewed Publications

**Padhye, N. S.** (1994). Statistical Mechanics of 2-D Fluids (Master's Thesis). The University of Texas at Austin, Austin, TX. Retrieved from <https://repositories.lib.utexas.edu/handle/2152/38666>

**Padhye, N. S.** (1998). Topics in Lagrangian and Hamiltonian Fluid Dynamics: Relabeling Symmetry and Ion-Acoustic Wave Stability (Doctoral Dissertation). The University of Texas at Austin, Austin, TX. Retrieved from <https://repositories.lib.utexas.edu/handle/2152/38684>

Engelbreton, J., & **Padhye, N. S.** (2006). New Paradigms in Healing: Research and Clinical Implications. Proceedings from the World Conference, Expanding Paradigms: Science, Consciousness & Spirituality, New Delhi, India. New Delhi: All India Institute of Medical Sciences.

**Padhye, N. S.** (2020). Reconstructed diagnostic sensitivity and specificity of the RT-PCR test for COVID-19. *MedRxiv*, 2020.04.24.20078949. <https://doi.org/10.1101/2020.04.24.20078949>

### Books & Chapters

Brazdeikis, A., & **Padhye, N. S.** (2010). Biomagnetic Measurements for Assessment of Fetal Neuromaturation and Well-Being. In D. Campolo (Ed.), *New Developments in Biomedical Engineering* (pp. 425–445). InTech. Retrieved from <http://www.intechopen.com/books/new-developments-in-biomedical-engineering/biomagnetic-measurements-for-assessment-of-fetal-neuromaturation-and-well-being>

**Padhye, N. S.** (2011). Entropy as information content in medical research. In Davidson, A. W., Ray, M. A., & Turkel, M. C. (Eds.), *Nursing, caring, and complexity science: for human-environment well-being* (pp. 143–162). New York: Springer Pub.

### Peer Reviewed Abstracts

Verklan, M. T., Sparks, J. W., & **Padhye, N. S.** (2002). Heart rate variability during transition to extrauterine life. *Pediatric Research*, 51, p. 385A.

Khattak, A. Z., Lasky, R. E., **Padhye, N. S.**, & Verklan, M. T. (2002) Heart rate variability in extremely low birth weight infants during their NICU stay; *Pediatric Research*, 51, p. 372A, 2002.

Verklan, M. T., & **Padhye, N. S.** (2003). Physiologic Variability Forecasts Outcome in Neonates Diagnosed with Congenital Diaphragmatic Hernia. *Nursing and Health Sciences*, 5, p. 97.

Brazdeikis, A., Chu, C. W., Verklan, M. T., & **Padhye, N. S.** (2004). Fetal magnetocardiograms recorded in a magnetically disturbed environment. In: *Applied Superconductivity Conference, ASC 2004*, Jacksonville, Florida.

Verklan, M. T., Brazdeikis, A., & **Padhye, N. S.** (2004). Analysis of fetal heart rate obtained by magnetocardiography. In: *2004 Congress Proceedings of the National Congress on the State of the Science in Nursing Research*, Washington, D.C.

**Padhye, N. S.** (2004). Chronobiological data modeling. In: *2004 Congress Proceedings of the National Congress on the State of the Science in Nursing Research*, Washington, D.C., p. 78.

Rapp, M. P., Bergstrom, N., & **Padhye, N. S.** (2005). The contribution of the complexity of mobility and skin temperature to the risk of developing pressure ulcers in nursing facility residents. In: *5th Annual Hartford Geriatric Nursing Initiative (HGNI) Leadership Conference*, Orlando, Florida.

Rapp, M. P., **Padhye, N. S.**, Bergstrom, N. (2006). Relationship of pressure ulcers to entropy of skin temperature. In: *23rd Annual Houston Conference on Biomedical Engineering Research*, Houston, Texas.

Tan, I., Vazquez, G., Brazdeikis, A., **Padhye, N. S.**, & Verklan, M. T. (2006). Non-invasive monitoring of fetal heart rate; In: *23rd Annual Houston Conference on Biomedical Engineering Research*, Houston, Texas.

Rapp, M. P., Bergstrom, N., & **Padhye, N. S.** (2006). Contribution of mobility and skin temperature to pressure ulcer risk. In: *30th Annual Conference of the Midwest Nursing Research Society (MNRS)*, Milwaukee, Wisconsin.

- Vincent, M. A., Hanneman, S. K., & **Padhye, N. S.** (2006). Porcine Stress Hormone Circadian Rhythm in Intensive Care. In: 10th Biennial Society for Research on Biological Rhythms Conference, SRBR, Sandestin, Florida.
- Rapp, M. P., Bergstrom, N., & **Padhye, N. S.** (2006). Skin temperature as a predictor of pressure ulcer risk. *Journal of Wound Ostomy and Continence Nursing*, 33, Suppl. 1, S47-S48.
- Hanneman, S. K., Green, K., & **Padhye, N. S.** (2006). Ethnic Differences in Salivary Cortisol of Doctoral Nursing Students. In: 17th International Nursing Research Congress Focusing on Evidence-Based Practice, Montreal, Canada.
- Brazdeikis, A., Tan, I., Vázquez, G., **Padhye, N. S.**, & Verklan, M. T. (2006). Analysis of Fetal Heart Rate Variability using Fetal Magnetocardiograms Recorded in an Unshielded Clinical Environment. In: 15th International Conference on Biomagnetism, BIOMAG 2006, Vancouver, British Columbia, Canada.
- Brazdeikis, A., Tan, I., Vázquez, G., Chu, C. W., **Padhye, N. S.**, & Verklan, M. T. (2006). Optimization of SQUID gradiometers for acquisition of fetal magnetocardiograms in an unshielded antepartum clinic. In: Applied Superconductivity Conference 2006, Seattle, Washington.
- Hamlin, S. K., Hanneman, S. K., Cron, S., Gilman, S., Gusick, G., & **Padhye, N. S.** (2007). Multi-site randomized clinical trial of horizontal positioning to prevent and treat pulmonary complications in mechanically ventilated critically ill patients: Hemodynamic substudy. In: Annual Conference of the Southern Nursing Research Society, Galveston, Texas.
- Vincent, M. A., Hanneman, S. K., & **Padhye, N. S.** (2008). A pilot study of single vs. serial section cosinor analysis. In: Annual Conference of the Southern Nursing Research Society, Birmingham, Alabama.
- Vincent, M. A., Hanneman, S. K., & **Padhye, N. S.** (2008). Biomarker circadian rhythm profiles in critically ill mechanically ventilated patients: a pilot study. In: 20<sup>th</sup> Anniversary Meeting of the Society for Research on Biological Rhythms, Destin, Florida.
- Verklan, M. T., **Padhye, N. S.**, & Brazdeikis, A. (2008). Fetal magnetocardiography to facilitate the study of autonomic nervous system development. In: 2008 Congress Proceedings of the National Congress on the State of the Science in Nursing Research, Washington, D.C.
- Padhye, N. S.**, Verklan, M. T., Brazdeikis, A., Williams, A. L., Khattak, A. Z., & Lasky, R. E. (2009). Heart rate variability in fetuses and neonates. In: 26th Annual Houston Conference on Biomedical Engineering Research, Houston, Texas.
- Popper, S. F., Trammell, J., Villarreal, R. E., Rapp, M. P., **Padhye, N. S.**, & Bergstrom, N. (2010). Assessing the accuracy and precision of ankle-worn accelerometers in persons at risk for pressure ulcers. In: 24th Annual Conference of the Southern Nursing Research Society, Austin, Texas.
- Hanneman, S. K., Vincent, M. A., & **Padhye, N. S.** (2010). Exploration of Porcine Stress-Hormone Response to Critical Care. In: 24th Annual Conference of the Southern Nursing Research Society, Austin, Texas.

Popper, S. F., Trammell, J., Villarreal, R. E., Rapp, M. P., **Padhye, N. S.**, & Bergstrom, N. (2010). Assessing the accuracy and precision of ankle-worn accelerometers in persons at risk for pressure ulcers. In: 34<sup>th</sup> Annual Conference of the Midwest Nursing Research Society, Kansas City, Missouri.

Cahill, J., **Padhye, N.**, Vera-Bolanos, E., Gning, I., Mendoza, T., Gilbert, M., & Armstrong, T. S. (2011). Exploration of symptom clusters in patients with primary and metastatic brain tumors. *Neuro-Oncology*, 13, Suppl. 3, p. 126.

Bruera, E., Yennurajalingam, S., Balachandran, D., **Padhye, N. S.**, Williams, J. L., & Frisbee-Hume, S. (2013). Actigraphy findings and cancer-related fatigue in advanced cancer patients treated with methylphenidate and nursing telephone intervention. Electronic publication associated with 2013 American Society of Clinical Oncology (ASCO) Meeting. *Journal of Clinical Oncology*, 31, Suppl., abstr e20528.

Yammine, L., Sanner, J. E., **Padhye, N. S.**, Burg, M. M., & Frazier, L. (2015). The Interaction of depressive symptoms and endothelin-1 predicts poor long-term prognosis in younger patients with acute coronary syndrome. In: 73rd Annual Scientific Meeting of the American Psychosomatic Society, From Cells to Community and Back, Savannah, Georgia.

Wang, J., & **Padhye, N. S.** (2015). Adherence to Multiple-Behavior Self-Monitoring in Diabetes with Phone & Paper Diaries: A Pilot Study. In: 36th Annual Meeting & Scientific Sessions of the Society of Behavioral Medicine (SBM), San Antonio, Texas.

Helmreich, R. J., Meininger, J. C., **Padhye, N. S.**, & Verklan, M. T. (2015). The Impact of Obesity Physiologic Indicators. In: 3rd Annual Worldwide Nursing Conference, WNC 2015, Singapore.

Tsusaki, R., Wardell, D., Mancias, P., **Padhye, N. S.**, & Kang, D. (2016). A Pilot Study of Early Postnatal Late Preterm and Term Breastfeeding Patterns using Surface Electromyography. In: 4<sup>th</sup> Annual Worldwide Nursing Conference, WNC 2016, Singapore.

Ahn, H., Woods, A., Choi, E., **Padhye, N. S.**, & Fillingim, R. (2017). Efficacy of Transcranial Direct Current Stimulation on Clinical Pain Severity in Older Adults with Knee Osteoarthritis Pain: A Double-Blind, Randomized, Sham-Controlled Pilot Clinical Study. *The Journal of Pain*, 18(4, Supplement), S87–S88. <https://doi.org/10.1016/j.jpain.2017.02.306>

Otto, M. C., Wu, J. H., Thacker, E. L., Lai, H., Lemaitre, R. N., McKnight, B., ... Mozaffarian, D. (2019). Abstract 046: Longitudinal Associations of Omega-6 and Omega-3 Plasma Phospholipid Polyunsaturated Fatty Acids with Dementia in Older Adults: the Cardiovascular Health Study. *Circulation*, 139(Suppl\_1), A046–A046. [https://doi.org/10.1161/circ.139.suppl\\_1.046](https://doi.org/10.1161/circ.139.suppl_1.046)

#### Other

Cohen, M. Z., Rozmus, C. L., Mendoza, T. R., **Padhye, N. S.**, Neumann, J., Gning, I., ... Cleeland, C. S. (2013). Authors' reply to Tendas et al. *Journal of Pain and Symptom Management*, 45(4), e3-4. <https://doi.org/10.1016/j.jpainsymman.2013.01.002>

## **PRESENTATIONS**

### **International**

**Padhye NS** (2003). "Multiple timescale statistical filter for corrupt RR-series," 25th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBC'03, Cancun, Mexico. Paper presentation.

**Padhye NS**, Brazdeikis A, Verklan MT (2004). "Monitoring fetal development with magnetocardiography," 26th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBC'04, San Francisco, CA. Poster presentation.

**Padhye NS**, Duan Z, Verklan MT (2004). "Response of fetal heart rate to uterine contractions," 26th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBC'04, San Francisco, CA. Paper presentation.

**Padhye NS**, Brazdeikis A, Verklan MT (2006). "Change in complexity of fetal heart rate variability," 28th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, New York City, NY. Poster presentation.

**Padhye NS**, Verklan MT, Brazdeikis A, Williams AL, Khattak AZ, Lasky RE (2008). "A comparison of fetal and neonatal heart rate variability at similar post-menstrual ages," 30th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Vancouver, Canada. Paper presentation.

**Padhye NS**, Hamlin S, Brazdeikis A, Hanneman SK (2009) "Cardiovascular impact of manual and automated turns in ICU," 31st Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Minneapolis, Minnesota, USA, Poster presentation.

**Padhye NS**, Williams AL, Khattak AZ, Lasky RE, Verklan MT, Brazdeikis A (2010). "Heart Rate Variability as a Measure of Neonatal Pain Response and Fetal Autonomic Development," 4th International Conference on Computer Applications in Electrical Engineering Recent Advances, Indian Institute of Technology, Roorkee, India, Plenary Speaker (Invited).

Zouridakis G, Patidar U, **Padhye NS**, Pollonini L, Passaro A, Papanicolaou AC (2010) "Spectral power of brain activity associated with emotion – A pilot MEG study," 17th International Conference on Biomagnetism Advances in Biomagnetism – Biomag 2010, Dubrovnik, Croatia. Poster presentation.

**Padhye NS**, Zhang X, Rapp MP, Bergstrom N (2011) "Gabor filter for enhanced recognition of assisted turning events," 33rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Boston, Massachusetts, USA. Poster presentation.

Yennurajalingam S, Balachandran D, **Padhye NS**, Williams JL, Frisbee-Hume S, Bruera E (2013). "Actigraphy findings and cancer-related fatigue (CRF) in advanced cancer patients treated with methylphenidate (MP) and nursing telephone intervention (NTI)," Multinational Association of Supportive Care in Cancer (MASCC) Meeting, Berlin, Germany. Poster presentation.

Cahill JE, Lin L, Armstrong TS, Acquaye AA, Vera-Bolanos E, Gilbert MR, **Padhye NS** (2013). "Personal health records, symptoms, uncertainty and mood in brain tumor patients," 4th Quadrennial Meeting of the World Federation of Neuro-Oncology held in conjunction with the 2013 Scientific Meeting and Education Day of the Society for Neuro-Oncology, San Francisco, California. Poster presentation.

Branson S, Baun M, Kang D, **Padhye NS**, Bergstrom N, Barker S (2014). "Dosage effects of therapy dog visitation on loneliness, stress, anxiety and biological responses among the aging," International Society of Anthrozoology (ISAZ) 2014: Animals and Humans together - Partners in Society, Vienna, Austria. Poster presentation.

**Padhye NS**, Wang J (2015). "Pattern of active and inactive sequences of diabetes self-monitoring in mobile phone and paper diary users," 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Milan, Italy. Paper presentation.

**Padhye NS**, Wang J (2016). "Effect of Self-Monitoring Clusters on Weight and Hemoglobin A1c," 38th Annual International Conference of the IEEE Engineering in Medicine & Biology Society, Orlando, Florida. Paper presentation.

Li L, Arakaki, X, Tran T, Harrington M, **Padhye NS**, Zouridakis G (2016). "Brain Activation Profiles in Mtbi: Evidence from ERP Activity of Working Memory Response," 38th Annual International Conference of the IEEE Engineering in Medicine & Biology Society, Orlando, Florida, Poster presentation.

Branson, S., Boss, L., **Padhye, N.**, Troetscher, T., & Ward, A. (June 2017). "Effects of animal-assisted intervention on biobehavioral stress responses in hospitalized children: A randomized controlled study," International Society of Anthrozoology Conference 2017: Human-Animal Interconnections, UC Davis, California, USA. Paper presentation.

**Padhye, N. S.**, Bergstrom, N., Rapp, M. P., Etcher, L., Redeker, N. S. (2017). "Pressure ulcer risk detection from complexity of activity," 39th Annual International Conference of the IEEE Engineering in Medicine & Biology Society, Jeju Island, South Korea. Poster presentation.

Aggarwal, S. S., Ott, S. D., **Padhye, N. S.** (May, 2018). "Concussion Recovery In Adolescents: The Influence Of Race And Sex On Neurocognition," 2018 Annual Meeting, World Congress on Exercise is Medicine®, and World Congress on the Basic Science of Muscle Hypertrophy and Atrophy of the American College of Sports Medicine, Minneapolis, Minnesota. Poster presentation.

Branson, S., Boss, L., **Padhye, N.**, Gee, N., & Troetscher, T. (July 2018). "Biobehavioral profiles of attachment to cats in community dwelling older adults," International Society of Anthrozoology (ISAZ) 2018: Animals in Our Lives: Multidisciplinary Approaches to the Study of Human-Animal Interaction, Sydney, Australia. Paper presentation.

Branson, S., Boss, L., Hamlin, S., & **Padhye, N.** (July, 2019). "Feasibility Pilot of Animal-Assisted Activity in Critically Ill Older Adults: A Small Randomized Controlled Trial," 28th Annual International Society of Anthrozoology Conference: Animals in the Public Eye: Human Interactions and Perceptions of Animals, Orlando, Florida. Poster presentation.



**Padhye, N. S.,** & de Oliveira Otto, M. (July, 2019). "Information Theoretic Measures of Diversity." Oral and e-poster presentations at Joint Statistical Meetings (JSM) 2019, Denver, Colorado.

**Padhye, N. S.,** & Santa Maria, D. (2020, August 4). *Longitudinal Treatment Effect and Non-Ignorable Missing Values of a Binary Response* [Oral Presentation]. Joint Statistical Meetings, Philadelphia.

#### National

**Padhye, N. S.** (2004). "Chronobiological data modeling," National Congress on the State of the Science in Nursing Research, Washington, D.C. Paper Presentation.

**Padhye, N. S.** (2008). "Fetal magnetocardiography to facilitate the study of autonomic nervous system development," National Congress on the State of the Science in Nursing Research, Washington, D.C. Paper Presentation.

Cahill J, **Padhye NS**, Vera-Bolanos E, Gning I, Mendoza T, Gilbert M, Armstrong, T (2012). "Exploration of symptom clusters in patients with primary and metastatic brain cancer," National State of the Science Congress on Nursing Research, Washington, DC. Paper Presentation.

**Padhye NS**, Hanneman SK (2012). "Estimation of circadian rhythm with allowance for uncertain time period," in Symposium on Circadian Rhythms in Acute and Chronic Illness at the National State of the Science Congress on Nursing Research, Washington, DC. Paper Presentation.

Hanneman SK, **Padhye NS** (2012). "Circadian Rhythms in a Porcine Adult ICU Model," in Symposium on Circadian Rhythms in Acute and Chronic Illness at the National State of the Science Congress on Nursing Research, Washington, DC. Paper Presentation.

Vincent MA, Hanneman SK, **Padhye NS**, Smolensky M, Kang D-H (2012). "ICU Patient Core Body and Ambient Temperature 24-Hr Patterns and Illness Severity," in Symposium on Circadian Rhythms in Acute and Chronic Illness at the National State of the Science Congress on Nursing Research, Washington, DC. Paper Presentation.

Leyden KL, Hanneman SK, McCarley CA, **Padhye NS** (2012). "Activity-rest circadian rhythms in COPD," in a Symposium on Circadian Rhythms in Acute and Chronic Illness at the National State of the Science Congress on Nursing Research, Washington, DC. Paper Presentation.

Hamlin SK, Hanneman SK, **Padhye NS**, Lodato RF (2012). "Hemodynamic Changes Associated with Manual and Automated Lateral Rotation in Mechanically Ventilated ICU Patients," National State of the Science Congress on Nursing Research, Washington, DC. Paper Presentation.

**Padhye NS**, Wang J (2014). "Pattern of adherence to diet and physical activity self-monitoring using smart phones versus paper diaries in a pilot intervention study among diabetes patients," National State of the Science Congress on Nursing Research, Washington, DC. Paper Presentation.

Branson, S., Baun, M., **Padhye, N.**, Kang, D.H., Bergstrom, N., & Barker, S. (2015, June). "The relationship of pet ownership and pet attachment on psychosocial, biological, and executive function in the disadvantaged homebound elderly," International Society of Anthrozoology (ISAZ). Saratoga Springs, NY. Poster presentation.



Hanneman, S. K., **Padhye, N. S.**, Burk, R., Whitehead, L. W. (2016). "Effect of Light at Night on Salivary Melatonin Level and Circadian Rhythm," State of the Science Congress, Council for the Advancement of Nursing Science, Washington, D. C. Paper Presentation.

Santa Maria, D. M., **Padhye, N. S.**, Gallardo, K., Johnson, K., Swain, H., Tortolero-Emery, S., Businelle, M. (2016). "Use of Ecological Momentary Assessment to Determine the Relation between Stress and Sexual Risk Behaviors among Homeless Youth," State of the Science Congress, Council for the Advancement of Nursing Science, Washington, D. C. Paper Presentation.

Ahn, H., Woods, A., Choi, E., **Padhye, N.**, & Fillingim, R. (2017). "Efficacy of Transcranial Direct Current Stimulation on Clinical Pain Severity in Older Adults with Knee Osteoarthritis Pain: A Double-Blind, Randomized, Sham-Controlled Pilot Clinical Study," 36th Annual Scientific Meeting of the American Pain Society, Pittsburgh, Pennsylvania. Poster Presentation.

Jang, A., Hwang, S.-K., **Padhye, N. S.**, & Meiningner, J. C. (2017). "Effects of cognitive behavior therapy on heart rate variability and gastrointestinal symptoms and emotional status in female students with constipation-predominant irritable bowel syndrome: An exploratory subgroup analysis of a randomized controlled trial," Digestive Disease Week, Chicago, Illinois. Paper Presentation.

Santa Maria, D., **Padhye, N. S.**, Yang, Y., Gallardo, K. G., Businelle, M. S. (2018, April). "Predicting sexual behaviors among homeless young adults using ecological momentary assessment," 39<sup>th</sup> Annual Meeting of the Society of Behavioral Medicine, New Orleans, LA. Paper Presentation.

Hanneman, S., Kamat, S., **Padhye, N.**, Whitehead, L. (Sep, 2018). "Light-at-Night and Salivary Interleukin (IL)-6 Levels." Paper presentation at the 2018 State of the Science Congress on Nursing Research, Washington, D.C.

Branson, S., Boss, L., Hamlin, S. & **Padhye, N. S.** (Nov, 2018). "Animal-Assisted Activities Improving Stress in Critically Ill Older Patients: A Pilot & Feasibility Study." Poster presentation at Gerontological Society of America's 70<sup>th</sup> Annual Scientific Meeting, Boston, Massachusetts.

Otto, M. C., Wu, J. H., Thacker, E. L., Lai, H., Lemaitre, R. N., McKnight, B., **Padhye, N.**, Song, X., King, I. B., Lopez, O., Siscovick, D., & Mozaffarian, D. (Mar, 2019). "Longitudinal Associations of Omega-6 and Omega-3 Plasma Phospholipid Polyunsaturated Fatty Acids With Dementia in Older Adults: the Cardiovascular Health Study." Paper presentation at the Epidemiology and Prevention Lifestyle and Cardiometabolic Health Conference, Houston, Texas.

Cain, C.M., Mandell, D.J., **Padhye, N.S.**, & Rozmus, C.L. (Nov, 2019). *Impact of adult attachment style in outcome trajectories in a parent-focused early language development intervention.* Poster presentation at the American Public Health Association Annual Meeting. Philadelphia, PA.

Santa Maria, D., & **Padhye, N. S.** (2020, November 6). *Real World Utilization of JITAIs for Risk Prevention among Youth Experiencing Homelessness: From Development to Evaluation.* [Invited Oral Presentation]. University of California San Francisco, School of Medicine, Center for AIDS Prevention Studies, San Francisco, CA (virtual).

Regional/State

**Padhye NS**, Verklan MT (2004). "Spectral analysis of fetal heart rate recovery from stress," Annual Conference of the University of Texas Center for Biomedical Engineering, Houston, Texas. Digital Poster Presentation.

Popper SF, Trammell J, Villarreal RE, Rapp MP, **Padhye NS**, Bergstrom N (2010). "Assessing the accuracy and precision of ankle-worn accelerometers in persons at risk for pressure ulcers," 24th Annual Conference of the Southern Nursing Research Society, Austin, Texas. Poster Presentation.

Hanneman SK, Vincent MA, **Padhye NS** (2010). "Exploration of Porcine Stress-Hormone Response to Critical Care," 24th Annual Conference of the Southern Nursing Research Society, Austin, Texas. Paper Presentation.

Popper SF, Trammell J, Villarreal RE, Rapp MP, **Padhye NS**, Bergstrom N (2010). "Assessing the accuracy and precision of ankle-worn accelerometers in persons at risk for pressure ulcers," 34<sup>th</sup> Annual Conference of the Midwest Nursing Research Society, Kansas City, Missouri. Poster Presentation.

Sanner J, Yu E, Udtha M, **Padhye NS**, Frazier L (2013). "Association of serotonin transporter gene polymorphisms with depressive symptoms and adverse cardiac events in patients with acute coronary syndrome," Southern Nursing Research Society, Little Rock, Arkansas. Poster Presentation.

Yu E, Sanner J, Udtha M, **Padhye NS**, Frazier L (2013). "Association of self-report depression history with depression scores during hospitalization for acute coronary syndrome and cardiac outcomes," Southern Nursing Research Society, Little Rock, Arkansas. Poster Presentation.

Yamine L, Frazier L, **Padhye NS**, Burg MM, Meininger J, (2013). "Severe depressive symptoms are associated with elevated endothelin-1 in younger patients with acute coronary syndrome," American Heart Association Scientific Sessions, Dallas, Texas. Poster Presentation.

Branson S, Baun M, Kang D, **Padhye NS**, Bergstrom N, Barker S (2014). "Dosage effects of therapy dog visitation on loneliness, stress, anxiety and biological responses among the aging," 28th Annual Conference of the Southern Nursing Research Society, San Antonio, Texas. Poster Presentation.

Mbue ND, Kang D, Meininger JC, Young-McCaughan S, **Padhye NS**, Varghese GN, Shank TC (2014). "The role of depression, stress, and self-management behaviors on metabolic control in patients with type 2 diabetes," 28th Annual Conference of the Southern Nursing Research Society, San Antonio, Texas. Poster Presentation.

Nguyen T, **Padhye NS**, Awakessien O, Wang, J (2014). "Comparing adherence to diet and physical activity self-monitoring using smart phones versus paper diaries in a pilot intervention study among diabetes patients," 28th Annual Conference of the Southern Nursing Research Society, San Antonio, Texas. Poster Presentation.

Schroedter, T., Coleman, D., Peck, M., **Padhye, N.**, Gong, Y., Wang, J. (2017). "Technology Use and Needs for Seniors Aging in Place: A Cross Sectional Survey Study," Southern Nursing Research Society's Annual Conference, Dallas, Texas. Poster Presentation.

Local

- Padhye, N. S.** (2001). Statistical Analysis of the Solar Wind Magnetic Field, Research Seminar at the School of Nursing, The University of Texas Health Science Center at Houston, Speaker.
- Padhye, N. S.** (2002). "Circadian temperature rhythms in menstrual cycle phases," Biometry Seminar at the School of Public Health, The University of Texas Health Science Center at Houston, Speaker (Invited).
- Padhye, N. S., & Hanneman, S. K.** (2002). "Circadian Temperature Rhythms in Women," 8<sup>th</sup> Annual Research Day, The University of Texas Health Science Center at Houston. Poster Presentation.
- Padhye, N. S.** (2004). "Application of time series analysis Parts I and II," Seminar Series at The University of Texas School of Nursing, Houston, Speaker.
- Padhye, N. S.** (2004). "Fetal heart rate variability in the presence of uterine contractions," Biostatistics Seminar at The University of Texas School of Public Health, Houston, Texas. Speaker (Invited).
- Padhye, N. S.** (2005). "Longitudinal analysis of neonatal heart rate variability," Biostatistics Seminar at The University of Texas School of Public Health, Houston, Texas. Speaker (Invited).
- Rapp MP, **Padhye NS**, Bergstrom N (2006). "Relationship of pressure ulcers to entropy of skin temperature," 23rd Annual Houston Conference on Biomedical Engineering Research, Houston, Texas. Poster Presentation.
- Padhye NS**, Brazdeikis A, Verklan MT (2006). "Change in complexity of fetal heart rate variability," Research Day: New Pathways to Discovery - Clinical and Translational Research in the 21st Century, The University of Texas Health Science Center, Houston, Texas. Poster Presentation.
- Padhye, N. S.** (2007). "Uterine contractions and fetal heart rate variability," Biostatistics Seminar at The University of Texas School of Public Health, Houston, Texas. Speaker (Invited).
- Padhye, N. S.** (2009). "Heart rate variability in fetuses and neonates," 26th Annual Houston Conference on Biomedical Engineering Research, Houston, Texas. Paper Presentation.
- Branson, S., Baun, M., **Padhye, N.**, Kang, D.H., Bergstrom, N., & Barker, S. Poster presentation (2014, April). "Dosage effects of therapy dog visitation on biobehavioral responses among the aging," UTHealth Houston School of Nursing Research and Quality Research Symposium, Houston, Texas. Poster presentation.
- Aggarwal S, Armstrong T, Ott S, Meininger J, **Padhye NS** (2016). "Clinical and Demographic Predictors of Concussion Recovery in Adolescents: A Retrospective Study," 4th Annual Sport Concussion Symposium, Houston, Texas. Poster Presentation.
- Robertson L, Hanneman SK, **Padhye NS**, Gilder T (2016). "Interrater Reliability Estimates for Scoring the Richards-Campbell Sleep Questionnaire," UTHealth School of Nursing Research Day, Poster Presentation.
- Hanneman SK, **Padhye NS**, Whitehead L (2016). "Effect of Light at Night on Salivary Melatonin Levels and Circadian Rhythm," UTHealth School of Nursing Research Day. Paper Presentation.
- Hanneman, S. K., Kamat, S., **Padhye, N. S.**, Whitehead, L. W. (2017). "Effect of Light at Night on Salivary Interleukin (IL)-6 Levels," UTHealth School of Nursing Research Day, Houston, Texas. Paper Presentation.

Schroedter, T., Coleman, D., Peck, M., **Padhye, N.**, Gong, Y., Wang, J. (2017). "Technology Use and Needs for Seniors Aging in Place: A Cross Sectional Survey Study," UTHealth School of Nursing Research Day, Houston, Texas. Paper Presentation.

**Padhye, N. S.**, Bergstrom, N., Rapp, M. P., Etcher, L., Redeker, N. S. (2017). "Is the complexity of activity indicative of pressure ulcer risk?," UTHealth School of Nursing Research Day, Houston, Texas. Paper Presentation.

**Padhye, N. S.**, Santa Maria, D. M., Yang, Y., Gallardo, K., Businelle, M. (2017). "Drug Use and Sexual Risks among Homeless Youth: Results of an Ecological Momentary Assessment," UTHealth School of Nursing Research Day, Houston, Texas. Paper Presentation.

Branson, S., Boss, L., Hamlin, S. & **Padhye, N.** (2018, April). "Biobehavioral effects of therapy dog visitation in elderly intensive care unit patients: A pilot and feasibility study," 2018 Research/Evidence-Based Practice Day at Cizik School of Nursing, Houston, Texas. Poster presentation.

## **PROFESSIONAL SERVICE**

### Editorial Boards/Panels

Nursing Research, Member, Quantitative Methods Review Panel, May 2016 – present.

### Professional Service

Center for Computational Biomedicine, The University of Texas Health Science Center at Houston, Member, 2001 – 2004.

24th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Houston, Texas, Member of Judging Panel for Best Student Paper International Competition, October 2002.

Sigma Xi Scientific Research Society, Member, 2003 – 2008.

Science Center Program, U.S. Civilian Research and Development Foundation, U.S. Department of State, Reviewer of Grant Proposal, 2003.

30<sup>th</sup> to 33<sup>rd</sup> Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Served as Reviewer for Conference Manuscripts, 2008, 2009, 2010, 2011.

### Professional Memberships

American Physical Society, Member, 1995 – 2016

American Geophysical Union, Member, 1998 – 2011

IEEE Engineering in Medicine and Biology Society, Member, 2002 – 2020

IEEE Signal Processing Society, Member, 2004 – 2020

American Statistical Association, Member, 2018 – present

### Institutional Service

Cizik School of Nursing at The University of Texas Health Science Center at Houston

Faculty Life Council, Member, Sep 2003 – Aug 2005; Member, Sep 2009 – Aug 2011; Member, Sep 2020 – present.

Master's Degree Council, Member, Dec 2003 – Jan 2004.

Intramural Scientific Review Panel, Member, Sep 2004 – Aug 2008, Mar 2018, Mar 2019

PhD Council (formerly Doctoral Degree Council), Member, July 2006 – present.

Doctoral Student Writing Award, Member, Judging Panel, April 2008, 2009, 2014.

Information Technology Committee, Member, May 2008 – present.

Appointment, Promotion, Tenure, and Review (APTR) Committee, Member, Sep 2009 – Aug 2011; Member, Sep 2020 – present.

Research Advisory Council, Member, Sep 2017 – present.

Faculty Search Committee, May 2018 – May 2020

Search Committee, Department of Research, Co-Chair, Jun 2020 – Sep 2020; Member, Oct 2020 – Apr 2021; Chair, Apr 2021 – present.

Strategic Planning Committee, Research Department, Member, Sep 2020 – Jan 2021.

#### The University of Texas Health Science Center at Houston

Research Day, Member of Judging Panel for Best Poster Competition, October 2003.

Executive Information Technology Governance Committee, Member, Jan 2005 – Aug 2007.

Research Technology Subcommittee, Member, April 2006 – Aug 2007.

Interfaculty Council, Member, Sep 2011 – Aug 2014.

Research Conflict of Interest Committee, Member, Sep 2020 – present.

#### Community Service

##### Science and Engineering Fair of Houston

Served on Judging Panels, Mar 2008, 2009, 2010, 2012.

#### **OPTIONAL APPENDICES**

##### Courses Taught

##### Department of Physics, University of Texas at Austin

Teaching Assistant for several courses from Fall 1991 to Fall 1993.

Physical Science: Mechanics and Heat, Introductory course and laboratory for non-science majors (PS 303), 3 credit hours, Assistant Instructor, Spring 1994.

##### Department of Physics, University of Delaware

Fundamentals of Physics I, Introductory mechanics for science and engineering students (PHYS 207), 4 credit hours, Instructor, Summer 1999.

##### Cizik School of Nursing, The University of Texas Health Science Center at Houston

Independent Study (N7700), "Biological Rhythm Analysis," 3 credit hours, Instructor, Fall 2002, Spring 2006, Fall 2008.

Independent Study (N7700), "Research Methods in Biocomplexity," 3 credit hours, Instructor, Summer 2004.

Advanced Statistics for Clinical Research Part I (N7521), 4 credit hours, Co-Instructor (25%), Spring 2005.

Advanced Statistics for Clinical Research Part II (N7506), 4 credit hours, Co-Instructor (30%), Summer 2005.

Independent Study (N7700), "Time Series Analysis," 3 credit hours, Instructor, Spring 2006.

Statistics in Nursing (N5506), 2 credit hours, Course Coordinator and Instructor, Fall 2006 – Summer 2017 (offered year-round every Spring, Summer, and Fall semester).

Independent Study (N7700), "Spectral Estimation of Circadian Rhythms," 3 credit hours, Instructor, Fall 2010.

Independent Study (N7700), "Multivariate Analysis," 4 credit hours, Instructor, Spring 2011.

Independent Study (N7700), "Ensemble Averaging," 3 credit hours, Instructor, Spring 2011.

Advanced Statistics for Clinical Research I (N7505), 4 credit hours, Instructor, Fall 2011 – present (every Fall).

Advanced Statistics for Clinical Research II (N7506), 4 credit hours, Instructor, Spring 2012 – present (every Spring).

Independent Study (N7700), "Regression Analysis," 3 credit hours, Instructor, Summer 2012.

Independent Study (N5522), "Longitudinal Data Analysis," 3 credit hours, Instructor, Summer 2015.

Independent Study (N7700), "Generalized Linear Models," 3 credit hours, Instructor, Spring 2017.

#### List of Project/Thesis/Dissertation Advisees

Cizik School of Nursing, The University of Texas Health Science Center at Houston

Poulin, Gregory. Comparison of Continuous and Intermittent Arterial Blood Gas Monitoring in Swine, MSN, May 2002. Member, Thesis Committee.

McCarley, Cynthia. Temporal Patterns of Dyspnea, Fatigue, and Pulmonary Expiratory Flow Rate in Patients with Chronic Obstructive Pulmonary Disease, PhD, August 2003. Member, Dissertation Committee.

Rapp, Mary Pat. Contribution of Activity and Skin Temperature to the Risk of Developing Pressure Ulcers in Nursing Facility Residents, PhD, May 2006. Member, Dissertation Committee.

Helmreich, Rebecca. Obesity on Vagal Tone and HbA1c during Pregnancy, PhD, May 2010. Member, Dissertation Committee.

Hamlin, Shannan K. Multi-Site Randomized Clinical Trial of Horizontal Positioning to Prevent and Treat Pulmonary Complications in Mechanically Ventilated Critically Ill Patients: A Hemodynamic Substudy, PhD, May 2010. Member, Dissertation Committee.

Vincent, Mary Anne. Biomarker circadian rhythm profiles in mechanically ventilated critically ill patients, PhD, May 2011. Member, Dissertation Committee.

Leyden, Katrina L. Circadian rhythm profiles in porcine ICU subjects, PhD, Aug 2012. Member, Dissertation Committee.

Yammine, Luba. The relationship between depressive symptom severity and circulating level of endothelin-1 among males  $\leq 50$  years and females  $\leq 55$  years of age with ACS, PhD, Aug 2013. Member, Dissertation Committee.

Cahill, Jennifer. Personal health records, symptoms, uncertainty and mood in brain tumor patients, PhD, Aug 2013. Member, Dissertation Committee.

Mbue, Ngozi. The role of depression, stress, and self-management behaviors on metabolic control in adults with type 2 diabetes, PhD, Aug 2013. Member, Dissertation Committee.

Tsusaki, Rebecca. Early Postnatal Breastfeeding Patterns in Late Preterm and Term Infants, PhD, Dec 2013. Member, Dissertation Committee.

Wachtel, Sheryl. Oxygenation Response to Manual and Automated Turning in Mechanically Ventilated Critically Ill Patients, PhD, Dec 2013. Member, Dissertation Committee.

Leyden, Kristina. Activity-Rest and Skin Temperature Circadian Rhythms and Sleep Patterns in Community-Dwelling Women, PhD, May 2015. Member, Dissertation Committee.

Aggarwal, Seema. Clinical and Demographic Variables Associated with Cognitive Deficits, Symptom Severity, and Duration after Concussive Injury in Adolescents: A Retrospective Study, PhD, May 2016. Member, Dissertation Committee.

Reynolds, Rae Brana. Uncertainty in Illness and Health Literacy in Pancreatic Cancer Patients, PhD, May 2018. Member, Dissertation Committee.

Cain, Cary M. Impact of Adult Attachment Style on Outcome Trajectories in a Parent-Focused Early Language Development Intervention, PhD, May 2019. Member, Dissertation Committee.

Graduate School of Biomedical Sciences, The University of Texas Health Science Center at Houston

Hymel, Chris M. Application of Signal Advance Technology to Electrophysiology, PhD, Aug 2010. Member, Dissertation Committee.

School of Public Health, The University of Texas Health Science Center at Houston

Jackson, Inimfon. Racial/Ethnic Differences and Trends in Health-Related Quality of Life among female breast cancer survivors, PhD, Nov 2020. Member, Dissertation Committee.

Electrical Engineering Department, Indian Institute of Technology, Roorkee, India

Sachdeva, Jainy. Identification of tumors on brain MR images, PhD, Jan 2013. Member, Dissertation Committee.