TRACY KLEIN

ASSOCIATE PROFESSOR

PhD, ARNP, FAAN, FAANP

# Curriculum Vitae

# ****CONTACT INFORMATION****

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# Education

#  2023 (in progress) M.S. Pharmacy, University of Maryland, Shady Grove, MD

 2011 Ph.D. Nursing, Washington State University, Vancouver, WA

1993 M.S. Nursing, Oregon Health and Sciences University, Portland, OR

1991 B.S.N. Nursing, Linfield College, Portland, OR

1985 B.A. English, Reed College, Portland, OR

# Academic Employment

2022 – Present *Assistant Director*, Center for Cannabis Policy, Research and Outreach, Washington State University, Pullman, WA

2019 – Present *Associate Professor*, College of Nursing, Washington State University, Vancouver, WA

2018 – Present *Affiliate Professor*, Prevention Science, Washington State University, Pullman, WA

2015 – Present *Affiliate Professor and Teaching Preceptor*, College of Pharmacy, Oregon State University, Corvallis, OR

2013 – 2019 *Assistant Professor*, College of Nursing, Washington State University, Vancouver, WA

2007 – 2009 *Clinical Faculty*, College of Nursing, Washington State University, Vancouver, WA

1994 – 2012 *Affiliate Professor*, College of Nursing, and Clinical Faculty, School of Medicine, Oregon Health Sciences University, Portland, OR

* 1. **Clinical Practice**

 2021 – Present Washington State University DNP Program—*Family Nurse Practitioner*

 Clinical site visits and supervision of FNP students across Washington

2015 – 2021 Rose Urgent Care and Family Practice—*Family Nurse Practitioner*

 Provision of family practice across the lifespan in Vancouver, WA

 2012 – 2019Providence Health Systems--*Family Nurse Practitioner*

Provision of immediate care across greater Portland, OR metro area to families across the lifespan

2008 – 2013 SW Family Physicians**—***Family Nurse Practitioner*

Provision of full scope family practice in Tigard, OR for patients and families across the lifespan including prenatal, primary and OB care

2005 – 2006 Take Care Health Systems**—***Family Nurse Practitioner*

Provision of minor and urgent care for age 24 months to elderly patients in a suburban retail clinic setting in Lake Oswego, OR

2003 – 2005 Kartini Clinic—*Family Nurse Practitioner*

Provision of direct patient care to children and adolescents with eating disorders on both inpatient and outpatient basis. Position included admitting privileges and call for practice, as well as weekly hospital rounds. Precepting third year pediatric residents and nurse practitioner students on a weekly basis.

Summer 2003 The Village Clinic—*Family Nurse Practitioner (relief work)*

Independent provision of direct patient care to families and patients across the lifespan in a private, rural health clinic in Chiloquin, OR

 1998 – 2001 Oregon Health Division/OHSU—*Faculty Instructor, Breast and Cervical Cancer*

Worked with a management team to design, write, and implement statewide teaching curriculum of clinical breast examination. Instructed and evaluated Nurse Practitioners, Physician Assistants, Physicians, and OHSU residents in the practice of clinical breast examination and breast cancer detection

 1987 – 2000Planned Parenthood— *Various clinical positions*

* Women’s Health Nurse Practitioner (1993-2000)
* Registered Nurse (1990-1993)
* Clinic Assistant (1987-1989)

1996 – 1998 Springdale Job Corps—*Women’s Health Nurse Practitioner*

1994 – 1996 Healthy Start—*Women’s Health Nurse Practitioner and OHSU Clinical Instructor*

1991 – 1994 Legacy Emanuel Hospital—*Registered Nurse Pediatric Urgent Care*

1991 – 1998 Multnomah County Health Department—*Registered Nurse Public Health (multiple sites and roles including triage and direct care across the lifespan)*

1991 Reed College—*Registered Nurse*

1990 Los Angeles County/USC Medical Center—*Nursing internship at Women’s Hospital* with high-risk labor and delivery and post-partum patients

* 1. **Government Employment**

 1998 – 2013Oregon State Board of Nursing - *Operations and Policy Analyst, Advanced Practice.*

 Responsible for regulatory policy, licensure, and educational oversight for Advanced Practice nurses in the state of Oregon (Nurse Practitioner, Certified Registered Nurse Anesthetists, and Clinical Nurse Specialists). Functions included policy and regulation development as well as program oversight and implementation and expert analysis of law and policy.

2013 Chair, Division 54 Rulemaking Committee

2006 Chair, Division 56 Rulemaking Committee

2000 – 2008 Chair, Division 50 Rulemaking Committee

2000 Chair, Division 54 Rulemaking Committee

1998 – 2008 Chair, NP and CNS Prescribing Formulary Committee

* 1. **Fellowship**

2008-2012 Institute for Regulatory Excellence, National Council of State Boards of Nursing, Chicago, IL

* 1. **Certifications**

2003 – Present Family NP (ANCC)

1993 – Present Women’s Health NP (NCC)

1993 – Present DEA registration schedule II-V and X waiver (OR and WA)

* 1. **Licensure**

2003 – Present Family ARNP (2003) and RN (2001), Washington

1991 – Present Family NP (2003) Women’s Health NP (1993-2003) and RN (1991), Oregon

# Honors and Awards

2019 (Awarded) Nurse Practitioner Hall of Fame, Oregon Nurses Association

2019 (Awarded) Outstanding Graduate Faculty Award, WSU College of Nursing

2018 (Awarded) Nursing Practice Excellence Award, Sigma Theta Tau, Delta Chi Chapter At Large

2018 (Awarded) Travel Conference Award, Sigma Theta Tau, Delta Chi Chapter at Large

2018 (Nominated) Women of Distinction, WSU Vancouver Campus

2017 (Awarded) Nurse Researcher Award, WSU College of Nursing

2013 (Induction) American Academy of Nurses, Fellow

2012 (Induction) Institute of Regulatory Excellence, Fellow

2009 (Induction) American Association of Nurse Practitioners, Fellow

2009 (Awarded) American Association of Nurse Practitioners, Oregon NP of the Year

1991 (Induction) Sigma Theta Tau, Beta Psi and Delta Chi Chapters

* 1. **Professional Memberships and Positions**

2022 – Present Washington State Nurses Association (member)

2021 – Present American Society of Health System Pharmacists (member)

2019 – Present American Association of University Women (Board of Directors 2019-2020, member)

2019 – Present National Organization of Nurse Practitioner Faculties (member)

2019 – Present Research Society on Marijuana (member)

2018 – Present National League for Nursing (member)

2014 – Present ARNP United (Board of Directors, 2014-2020, member)

2014 – Present American Association of Nurse Practitioners (Fellow, Board of Directors

2014 – 2020 Chair of Education Committee 2020-2021 (Research Committee Board Liaison 2018-2020)

2013 – Present American Academy of Nursing (Fellow, Bioethics Interest group member)

1993 – Present Sigma Theta Tau (member Beta Psi and Delta Chi at large chapters)

* 1. **State, Regional, National, and International Advisory Committees**

2022 – Present American Society of Addiction Medicine (ASAM) Benzodiazepine Tapering Work Group, *Nurse Practitioner Member, ASAM appointment*

* *18-month appointment to develop evidence based national* guidelines on benzodiazepine tapering

2022 – Present Washington State Liquor and Cannabis Board Cannabinoid Science Work Group, *Clinician Member, WA Health Authority appointment*

* 12-month appointment to advise the Washington Liquor and Cannabis Board on science driven cannabis regulation and policy

2019 – Present Oregon Prescription Drug Monitoring Advisory Commission, *Nurse Representative*, *Governor Appointment*

* 24-month term appointment with renewal to advise the Oregon Prescription Drug Monitoring Program on policy and metrics for safe controlled substance prescribing and monitoring. This committee may review any individual or aggregate prescribing by licensees of multiple disciplines for educational intervention recommendations.

2011 – 2020 Oregon Pharmaceutical and Therapeutics Committee, *Public Representative, Governor Appointment* (Chair 2018-2020, Vice Chair 2011-2017).

* 24-month appointment with renewal to develop and approve evidence-based formulary criteria and policy for all Oregon Health Plan members.

2004 – 2011 Oregon Department of Justice: Attorney General’s Sexual Assault Nurse Examiner Credentials Commission, *Nurse Practitioner Representative, Governor Appointment* (Chair, 2006-2011, Medical Forensics Committee 2010-2011, member 2004-2011).

* 12-month appointment with renewal to review and approve credentials and documents for certification as a Sexual Assault Nurse (SANE) in Oregon

2002 – 2011 Oregon Health Resources Commission: Practitioner Managed Drug Plan, *Nurse Representative, Governor Appointment*

* 24-month appointment with renewal to develop and implement evidence-based guidelines for drug formulary placement by drug classes.

2010 – 2011 Essential Genetic and Genomic Competencies for Nurses with Graduate Degrees (Greco, Tinley & Soebert, 2011)—*Advisory Committee Member and Reviewer*

* Clinical review and advisory work on national genetic and genomic competencies for graduate nurses.

2000 – 2009 National Council of State Boards of Nursing Advanced Practice Task Force—(2000-2002 and 2007-2009)

* Two terms on national advisory committee of nurse practitioner regulators to develop and implement standards for national certification and licensure which later became the APRN Consensus model adopted by over 30 nursing organizations.

2003 – 2004 Oregon Department of Human Services—*Birth Center Standards Rulemaking Advisory Committee, Governor Appointment*

* 12-month appointment to develop rules and standards for free standing birth centers in the state of Oregon.

2002 – 2004 College of Registered Nurses, British Columbia—*Credentials Review Committee, Nurse Practitioner Expert*

* 24-month international consultation and review of credentials for nurse practitioner recognition in British Columbia during the development of the role in that province.

#  2001 – 2005 American College of Nurse Practitioners—*Public Policy Committee, Elected* (Chair, 2004-2005, Member, 2001-2004)

# RESEARCH and SCHOLARLY ACTIVITIES

 **Research Statement**

**My research focuses on the interface between public policy and prescribing practices as they relate to practitioner, patient, and legal/regulatory factors. I particularly focus on medications and substances that have potential to impact substance use disorders and mental health. My scholarship also analyzes prescriber focused education and behaviors regarding prescribing or authorizing medications and cannabis. I collaborate with interprofessional partners to clinically translate pharmacoepidemiologic evidence into policy analysis and recommendations which impact patient safety.**

#  Context Statement

My program of research has been continuously funded with both internal and external grant funding since my hire at WSU in 2013. I have obtained highly competitive professional funding awards from the American Nurses Foundation, American Association of Nurse Practitioners Fellows, Western Nursing Institute, Sigma Theta Tau, and the National Council of State Boards of Nursing in addition to team-based funding for multi-year projects listed below from SAMHSA and HRSA.

# Research Funding: Current, Pending and Completed

This table shows the research funding that are current, pending, and completed. In my role as PI, I have received a total of $18,980 in completed projects. As Co-PI, I have received a total of $2,760,161 in completed projects, and I have funding of $4,798,84 for in-process projects.

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| Dates | Role | Agency | Title | Amount | Status | Dissemination |
| 6/2021-6/2022 | Co-PI | WSU Office of Provost | *Alliance for Health Science Professional Networking (ASPEN)* | $5,000 | In process | International Interprofessional speaker’s series (scheduled, 2023) |
| 9/2020-9/2023 | Co-PI | US Department of HHS, Substance Abuse and Mental Health Services Administration | *Rethinking Education on Substance Use with Inter-Professional Education and Collaborative Teams using Medication-Assisted Treatment (RESPECT-MAT).* | $199,687 | In process | 2 manuscripts in process, education of over 100 medical, pharmacy, nursing, social work and athletic training students using standardized patients |
| 7/2019-5/2023 | Co-PI | HRSA Bureau of Health Workforce | *Rethinking Education on Substance Use through Interprofessional Education and Rural Community Training (RESPECT).* | $1,792,817 | In process | 2 manuscripts, 3 poster presentations, 4 workshops and education of over 300 interprofessional students using standardized patients |
| 7/2019-6/2023 | Co-PI | HRSA Division of Nursing and Public Health | *Washington State University Advanced Nursing Practice for Rural Underserved in Eastern Washington (WSU-ANEW).* | $2,772,188 | In process | 2 posters and 1 manuscript + 1 in review |
| 1/2019-2/2023 | Co-PI | State of Washington | *Unintentional Marijuana Exposures Among Children: A National Policy Evaluation* | $29,149 | In process | 4 manuscripts + 1 in review |
| 7/2020-7/2022 | Co-PI | WSU Vancouver Office of Research Mini-Grant | *Covid-19 Health Professional Policy Persistence Study* | $5,000 | Completed | 1 manuscript and 1 podcast (featured by the journal) |
| 9/2019-9/2021 | Co-PI | US Department of HHS, Substance Abuse and Mental Health Services Administration | *Washington State University Center for Rural Opioid Prevention, Treatment, and Recovery (CROP-TR)* | $1,100,000 | Completed | 2 webinars with over 60 attendees |
| 9/2018-6/2021 | PI | WSU Vancouver Office of Research External Mentors Program | *Characteristics, Supply, and Impact of Expanded Prescriptive Authority for Medication Assisted Therapy* | $4,000 | Completed | 3 manuscripts + 3 poster presentations |
| 2/2019-7/2020 | Co-PI | National Council of State Boards of Nursing | *Hiring, Credentialing, and Privileging Nurse Practitioners as Hospitalists* | $146,583 | Completed | 3 manuscripts + 2 conference presentations |
| 6/2017-6/2020 | PI | American Association of Nurse Practitioners Fellows | *Prescribing Practices for Children with ADHD* | $3,000 | Completed | 3 manuscripts +2 conference presentations |
| 7/2017-6/2019 | Co-PI | HRSA Division of Nursing and Public Health | *Washington State University Advanced Nursing Practice for Rural Underserved in Eastern Washington (WSU-ANEW).* | $1,456, 443 | Completed | 2 manuscripts+ 1 poster presentation and 3 conference presentations |
| 11/2017-11/2018 | Co-PI | State of Washington | *Knowledge, Practices and Attitudes Regarding Marijuana for Medical Conditions Among Washington State Healthcare Providers and Certified Medical Marijuana Consultants.* | $25,000 | Completed | 2 manuscripts +2 conference presentations |
| 2/2016-2/2018 | SC\* | College of Registered Nurses, Vancouver, BC | *Nurse Practitioner Prescribing Standards: College of Registered Nurses of British Columbia.* | $7,500 | Completed | 1 manuscript |
| 6/2015-2/2017 | PI | WSU Vancouver Office of Research Mini-Grant | *The Scope of Inclusion of Academic Medical Center Conflict of Interest Policies* | $2,480 | Completed | 1 manuscript + 1 conference presentation |
| 10/2014-10/2015 | PI | American Nurses Foundation/Western Institute of Nursing | *Nurse Practitioner Assessment and Management of Adolescent Concussion* | $5,000 | Completed | 6 manuscripts +2 poster presentations |
| 5/2014-8/2015 | Co-PI | WSU Office of Research Seed Grant | *Recommendations for Adolescent Sports Related Concussion Evaluation and Management* | $27,135 | Completed | 6 manuscripts +2 poster presentations (same project as above) |
| 9/2013-9/2015 | PI | American Association of Nurse Practitioners | *Nurse Practitioner Prescribing of Psychotropic Agents for Pediatric Patients* | $2,500 | Completed | 2 manuscripts + 1 conference presentation + 1 poster |
| 9/2013-9/2015 | PI | Sigma Theta Tau | *Nurse Practitioner Prescribing of Psychotropic Agents for Pediatric Patients* | $2,000 | Completed | 2 manuscripts + 1 conference presentation + 1 poster (same project as above) |
| 10/2013-5/2014 | SC\* | College of Registered Nurses, Vancouver, BC | *Development of Nurse Practitioner Competencies for Prescribing Controlled Substances*. | $8,500 | Completed | 1 manuscript |

\*SC= Subcontractor

* 1. **Journal Publications**



 **Citations and Impact**

I have been consistent in my professional engagement in nursing and health policy, starting before my hire at WSU, and building in impact and depth. In health policy, the framework I developed in 2005 for expanding scope of practice for nurse practitioners has been adapted nationally and internationally into scope of practice guidelines, including current guidelines for nurse midwives in the US on expansion of nurse midwifery skills beyond basic core competencies:

<https://www.midwife.org/acnm/files/acnmlibrarydata/uploadfilename/000000000066/2022_ps_expansion-of-midwifery-practice-beyond-core-competencies.pdf>

In 2019 I published a follow-up analysis with Dr Randall Hudspeth focusing on regulatory, practice and employment implications of the continuing evolution of nurse practitioner scope, which is the most accessed article published in the Journal of the American Association of Nurse Practitioners. As lead author, my research study on the impact of US national cannabis law on synthetic cannabis poisonings, which found a positive correlation between liberalization of law and reduced poisonings, was the most accessed article on the WSU Insider for 2022 and was accessed through the Journal of Clinical Toxicology 10,067 times as of December 2022. The latter was also featured in popular media through CNN, Forbes, High Times, Discover magazine and The Hill, among others. I have a Web of Science H-Index of 10, with 476 total citations in 10 countries and 273 citations in Google Scholar with an H-Index of 8.

In 2022 alone I have 4 data-based manuscripts under review, 6 data-based publications, and 3 non-data based publications.

* + 1. **Data-Based Publications [28 total + 4 under review]**

Dilley, J., Graves, J., Dent, C., **Klein, T.,** Liebelt, E., Hunt, L., Stupp, E., Schauer, G. (2022, under review). Do cannabis edible poisonings happen at Halloween? An examination of exposures reported to US Poison Centers. *Clinical Therapeutics.*

Dilley, J., Graves, J., Dent, C., **Klein, T.,** Liebelt, E. (2022, under review). Does packaging matter? Effectiveness of Washington state’s policy to prevent cannabis edible related poisonings. *Clinical Therapeutics.*

Miller, J., Hildenbrand, K., **Klein, T.,** McKinnon, S., Kobayaski, R., Bindler, R., DeWitt, D., Wilson, M. (2022, under review). Addressing substance use disorder by engaging athletic trainer students in interprofessional education: an educational technique. *Athletic Training Education Journal.*

**Klein, T.,** Brooks, O., Purath, J. (2022, under review). Integration of bias consciousness in Advanced Pharmacology for NP students. *The Journal for Nurse Practitioners.*

**Klein, T.,** Bindler, R., Kaplan, L. (November, 2022). NP practice under the Covid public health emergency: Did policy change persist? *Journal of the American Association of Nurse Practitioners* (online ahead of press)<https://journals.lww.com/jaanp/Abstract/9900/Nurse_practitioner_practice_under_the_Covid_19.53.asp>

**Klein, T.** & Bindler, R. (September, 2022). Ask your provider about cannabis: Increasing nurse practitioner knowledge and confidence. *Cannabis and Cannabinoid Research.*<https://www.liebertpub.com/doi/10.1089/can.2021.0061>

**Klein, T.,** Dilley, J., Graves, J., Liebelt, E. Synthetic cannabinoid poisonings and access to the legal cannabis market: Findings from US National Poison Center data 2016-2019. (August, 2022). *Clinical Toxicology* (online ahead of press)<https://doi.org/10.1080/15563650.2022.2099887>

Whitfield, M., Bleah, P., Conception-Bachynski, J., Macdonald, D., **Klein, T**., Ross-White, A., Wilson, R. (August, 2022). Capability as a concept in advanced practice nursing education and practice: A scoping review protocol. *JBI Evidence Synthesis,* 20 (8), 2079-2086. doi: 10.11124/JBIES-21-00443.

**Klein, T.**, Graves, J., Panther, S. (February, 2022). Trazodone prescribing for children with Attention Deficit Hyperactivity Disorder on Medicaid in Oregon. *Journal of Pediatric Pharmacology and Therapeutics.* https://doi.org/10.5863/1551-6776-27.2.132

**Klein, T.,** Hartung, D., Markwardt, S. (January, 2022). The impact of CARA mandates on nurse practitioner controlled substance prescribing in Oregon: A Cohort study. *Substance Abuse Treatment, Prevention and Policy.* <https://substanceabusepolicy.biomedcentral.com/articles/10.1186/s13011-022-00431-z>

Kaplan, L. & **Klein, T.** (May 2021). Nurse practitioner hospitalists: An empowered role. *Nursing Outlook.* doi: <https://doi.org/10.1016/j.outlook.2021.03.015>

Graves, JM., Dilley, J., Terkap, L., Brooks-Russell, A., Whitehall, J., **Klein, T.,** Liebelt, E. (2021). Kratom exposures among older adults reported to United States poison centers 2014-2019. *Journal of the American Geriatrics Society.*  <https://doi.org/10.1111/jgs.17326>.

Pietz, K., Graves JM, **Klein TA**, Weybright E, Pinkleton B. (2021). Concussions at School: Experiences and knowledge among school nurses. *American Journal of Nursing,* 121(2), 28-38.

**Klein, T.,** Geddes, J., Hartung, D. (2020). The geographic impact buprenorphine expansion to nurse practitioner prescribers in Oregon. *The Journal of Rural Health.*  <https://doi.org/10.1111/jrh.12538>.

Kaplan, L. & **Klein, T.** (2020). Characteristics and perceptions of the US nurse practitioner hospitalist workforce. *Journal of the American Association of Nurse Practitioners.* doi: 10.1097/JXX.0000000000000531

**Klein, T. A.,** Kaplan, L., Stanik-Hutt, J., Cote, J., & Brooks, O. (2020). Hiring and credentialing of nurse practitioners as hospitalists: A national workforce analysis. *Journal of Nursing Regulation*, *11*(3), 33-43.

Kaplan, L**., Klein, T.,** Wilson, M. & Graves, J. (2019). Knowledge, practices and attitudes of Washington state health professionals regarding medical marijuana use. *Cannabis and Cannabinoid Research.* doi:10.1089/can.2019.0051

Deichman, J., Graves, J., **Klein, T.** & Mackelsprang, J. (published online, December 2019). Characteristics of youth who leave the emergency department without being seen following sports related concussion. *Concussion.* <https://doi.org/10.2217/cnc-2019-0010>

Kaplan, L., **Klein, T.,** Wilson, M. & Graves, J. (2019). Knowledges, practices and attitudes of marijuana consultants in Washington state. *University of Toronto Medical Journal, 96*(3), 6-12.

**Klein, T.,** Woo, T., Panther, T., Odom-Maryon, T., & Daratha, K. (2019). Somnolence producing agents: A five year study of prescribing for Medicaid insured children with Attention Deficit Hyperactivity Disorder. *Journal of Pediatric Health Care, 33(3), e1-8.* <https://doi.org/10.1016/j.pedhc.2018.10.002>

**Klein, T**., & Lugo, Rogelio (Nov/Dec. 2018). Evaluation of prescribing within nurse practitioner residency and fellowship programs. *Journal for Nurse Practitioners,* 14(10).

**Klein, T**., & Graves, J. (2018). The scope of inclusion of academic conflict of interest policies. *Journal of Academic Ethics*, 1-14. https://doi.org/10.1007/s10805-017-9298-6.

Graves JM, **Klein TA**, Panther SG, Moore M, Abshire DA, Graham JY (August, 2018). Nurse practitioners' recommendations for pharmacotherapy in the management of adolescent concussion. *Journal of the American Association of Nurse Practitioners.* doi: 10.1097/JXX.0000000000000070.

Panther, S., Knotts, A., Odom-Maryon, T., Daratha, K., Woo, T., & **Klein, T.** (November-December, 2017). Off-label prescribing trends for ADHD medications for young and very young children on Medicaid. *The Journal of Pediatric Pharmacology and Therapeutics.* Vol. 22, No. 6, pp. 423-429. <https://doi.org/10.5863/1551-6776-22.6.423>.

**Klein, T.,** Graves, J., & Graham, J. (2016). Driving following adolescent concussion: Advice by nurse practitioners in absence of standardized recommendations. *Journal of Pediatric Health Care.*doi: 10.1016/j.pedhc.2016.11.004

Graves, J.M., & **Klein, T.** (2016). The impact of patient characteristics on nurse practitioners’ assessment and management of adolescent concussion. *Journal of the American Association of Nurse Practitioners.* doi:10.1002/2327-6924.12431.

Kaplan, L., **Klein, T**., Skillman, S., & Andrilla, C. H. (2016). Faculty supervision of NP program practicums: A comparison of rural and urban site differences. *The Nurse Practitioner*, *41*(7), 36-42.

Graves, J. M., & **Klein, T. A.** (2016). Nurse Practitioners’ comfort in treating work-related injuries in adolescents. (June, 2016, online ahead of print). *Workplace Health & Safety*. doi: 10.1177/2165079916653612.

**Klein, T.** & Graves, J. (September 2016, online ahead of print). Psychiatric nurse practitioner diagnosis and cognitive recommendations for mild traumatic brain injury. *Journal of the American Psychiatric Nurses Association.* doi: 10.1177/1078390316668992.

Wainwright, A., **Klein, T.** & Daly, C. (August 2016, online ahead of print). Competency development to support nurse practitioner prescribing of controlled drugs and substances in British Columbia. *Policy, Politics and Nursing Practice.* doi: 10. 1177/1527154416665099.

**Klein, T.,** Panther, S., Woo, T., Odom-Maryon, T. & Daratha, K. (2016) Prescriber variance in childhood ADHD treatment: Findings from Oregon Medicaid 2012. *Journal of Child and Adolescent Psychopharmacology, 26(6),* 548-554.doi:10.1089/cap.2015.0255.

**Klein, T.** (May/June, 2015). Clinical nurse specialist prescriber characteristics and challenges in Oregon. *Clinical Nurse Specialist.* doi: 10.1097/NUR.0000000000000125.

* + 1. **Clinical and Educational Publications (Non-Data-Based) [7 total]**

**Klein, T.** & Clark, C. (November, 2022). Therapeutic use of cannabis in the US. *The Nurse Practitioner.* 47(12), 16-25. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9674439/>

Buppert, C. & **Klein, T.** (2021). Certifying medical cannabis: What advanced practice registered nurses need to know. *Legal and Professional Issues for Nurses.* <https://www.medscape.com/viewarticle/943249>

Wilson, M., **Klein, T**., Bindler, R., Kaplan, L. (Online ahead of print, 2020). Shared decision-making for patients using cannabis for pain symptom management. *Pain Management Nursing.* <https://doi.org/10.1016/j.pmn.2020.09.009>

Hudspeth, R. & **Klein, T.** (August, 2019). Understanding nurse practitioner scope of practice: Regulatory, practice and employment perspectives now and for the future. *Journal of the American Association of Nurse Practitioners. 31(8),* 468-473. doi: 10.1097/JXX.0000000000000268.

Bucholtz, S., **Klein, T**., Cooke, C., Cook, M., Kinestrick, J. & Dickens, K. (May, 2018). Introduction to four systematic reviews addressing critical topics identified by the 2015 nurse practitioner research agenda roundtable priorities. *Journal of the American Association of Nurse Practitioners.* doi:10.1097/JXX.0000000000000035.

**Klein, T.** (Oct-Dec. 2014). Philanthropic dilemmas and the nurse administrator role. *Nursing Administration Quarterly,* 38(4), 319-326.

**Klein, T.** (2012). Implementing autonomous clinical nurse specialist prescriptive authority: A competency-based transition model. *Clinical Nurse Specialist, 26(5).* doi: 10.1097/NUR.0b013e318263d753.

* 1. **Book Chapters [6 total + 5 revisions]**

**Klein, T.** (2022, in press). Cannabis. In Woo, T.M. and Robinson, ML. Pharmacotherapeutics for Advanced Practice Nurse Prescribers*, 5th ed.*FA Davis: Philadelphia, PA

Wilson, M. & **Klein, T.** (2022, in press) Cannabis use in pain management. In Turner, H. & Czarnecki, M. Core Curriculum for Pain Management Nursing (4th Edition). Elsevier: New York.

**Klein, T. &** Pearce, P.(2021) Dissemination: Writing for publication. In Murphy, M., Staffileno, B. & Bucholtz, S. Research for Advanced Practice Nurses. Springer: New York.

**Klein, T.** (2014). State implications of the APRN consensus model. In Goudreau, K. and Smolenski, M. Health Policy and Advanced Practice Nursing: Impact and Implications. Springer: New York.

#### **Klein, T.** (2011/2021). Regulation of prescriptive authority. In Brown, MA & Kaplan, L. The Advanced Practice Nurse as Prescriber. Wiley-Blackwell: Hoboken.

**Klein, T.** (2010/2013/2016/2020/2022). Legal and professional issues in prescribing. In Woo, T.M. and Robinson, ML. Pharmacotherapeutics for Advanced Practice Nurse Prescribers*, 5th ed.*FA Davis: Philadelphia, PA.

* 1. **Conference Proceedings**
		1. **Refereed Papers or Abstracts [5 total]**

Whitfield, M., Bleah, P., Concepcion Bachynski, J., Macdonald, D., **Klein, T.,** Wilson, R. (2023, Aug). *Capability in Advanced Practice Nursing: A Scoping Review.* International Council of Nurses Global Congress: Nurses Together: A Force for Global Health. Montreal, Canada.

Remsberg, C., Bray, B., Richardson, B., Wilson, M., **Klein, T**., Kobayashi, R., Miller, J., Miller, Dewitt, D. (2021). *Pharmacy student perspectives of a virtual interprofessional opioid education training.* AACP Pharmacy Education Conference. Abstract.

**Klein, T.** (August, 2020). *Accessing the Oregon frontier: The impact of expanding authority for buprenorphine to nurse practitioners*. Academy Health Annual Conference. Abstract.

Wilson, M., & **Klein, T.A.** (2020). The cannabis controversy: Perceptions of patients, providers, and marijuana consultants on cannabis use. *Pain Management Nursing*, 21 (2), 207. <https://doi.org/10.1016/j.pmn.2020.02.005>.

**Klein, T.** (October, 2017).*The scope of inclusion of academic conflict of interest policies.* Life Sciences Law Scholars Conference, Loyola University Beazely Institute for Health Law and Policy, Chicago, IL. Invited presentation and published abstract.

* + 1. **Refereed Presentations** **[38 total]**

**Klein, T.,** Brooks, O., Purath, J. (June, 2023). *Integration of bias consciousness practices into advanced pharmacology*. American Association of Nurse Practitioners Annual Conference, New Orleans, LA. Poster presentation.

Wilson, M., **Klein, T.,** DeWitt, DE. (September, 2022). *Team based care of patients who take opioids: An interactive workshop.* Spokane Medical Society Annual Meeting. Live conference workshop.

Remsberg CM, DeWitt DE, Wilson M, Anderson J, **Klein TA**, Kobayashi R, Bindler RJ, McKennon S. (September, 2022). *Tried and tested: Strategies to implement virtual synchronous interprofessional education sessions using standardized patients.* NEXUS Summit 2022. Virtual presentation.

Whitfield, M., Mimirinis, M., Macdonald, D., **Klein, T.,** Wilson, R. (August, 2022). *A phenomenographic exploration of nurse practitioner capability*.  European Association for Research on Learning and Instruction (EARLI), SIG9 Conference: Phenomenography and Variation Theory. Stockholm University, Stockholm. Conference presentation.

Dilley, J., Graves, J., **Klein, T.,** Goulding, D. & Contreras, E. (June, 2022). *Policy relevant findings from examination of adverse cannabis-related exposures reported to Poison Centers.* Council of State and Territorial Epidemiologists, Louisville, KY. Invited breakout presentation.

Kaplan, L. **&** **Klein, T.** (June, 2022). *Characteristics of the NP hospitalist role: Results from a national workforce analysis.* American Association of Nurse Practitioners National Conference. Invited podium presentation.

Whitfield, M., Macdonald, D., **Klein, T.,** Wilson, R. (May, 2022). *An emergent approach to the exploration of capability in advanced nursing practice.* 18th International Congress of Qualitative Inquiry. University of Illinois at Urbana-Champaign, IL. Conference presentation.

Randall, R., Purath, J., Wilson, M., Klein**, T.,** Lewis, M., Brothers, M., Shalk, D. (April, 2022). *Implementing and evaluating a cannabis shared decision-making aid at a pain clinic.* Western Institute of Nursing 55th Annual Conference, Portland, OR. Poster presentation.

**Klein, T.** (April, 2022). *Integration of bias consciousness practices into advanced pharmacology*. National Organization of Nurse Practitioner Faculties 48th Annual Conference, Minneapolis, MN. Poster presentation.

**Klein, T.** and Kaplan, L. (September, 2021). *Clinical implications of legal cannabis for APNs.* International Council of Nurses NP/APN Network Conference, Halifax, NS, Canada. (Conference cancelled, rescheduled 2021). Invited clinical workshop.

**Klein, T.**, Bindler, R., Destine, K., Montes, D. (August, 2021). *Ask your healthcare provider about cannabis (APAC) project.* 2021 Virtual Cannabis Research Conference, Colorado State University/Oregon State University Global Hemp Innovation Center. Virtual panel presentation.

Remsberg CM, Bray BS, Richardson BA, Wilson M, **Klein T,** Kobayashi R, Miller J, DeWitt DE. (July, 2021). *Virtual interprofessional opioid education sessions with standardized patients*.  Association of Colleges of Pharmacy Annual Meeting, Pharmacy Education 2021. Virtual poster presentation.

**Klein, T.** (June, 2021). *Your patient and cannabis: Medical and legal considerations.* American Association of Nurse Practitioners National Conference. Virtual invited podium presentation.

Destine, K., Montes, D., Khangura, J., Munar, M., **Klein, T.,** Bindler, R., Ishmael, D. (May, 2021). *Ask your provider about cannabis (APAC) project.* Oregon Society of Health System Pharmacists Annual Conference. Virtual poster presentation.

Kaplan, L. & **Klein, T.** (March, 2021). *Hiring, credentialing and privileging nurse practitioners as hospitalists: A national workforce and employment analysis.* Invited podium, 2021 National Council of State Boards of Nursing Scientific Symposium. Virtual presentation.

**Klein, T.,**Odom-Maryon, T., Brooks, O., & Purath, J.(September, 2020*). Preparing APN students for changing law and practice: cannabis, pain, opioids, and substance use disorder*. Invited podium, International Council of Nurses NP/APN Network Conference, Halifax, NS, Canada. (Conference cancelled, rescheduled 2021).

Bindler, R., Destine, K., Montes, D., Munar, M., & **Klein, T**. (2020). *Ask Your Pharmacist About Cannabis (APAC).* Washington State Pharmacy Association Northwest Pharmacy Convention. Virtual presentation. <https://www.wsparx.org/page/askyourpharmacist>

Montes, D., Destine, K., Khangura, J., Bindler, R. (2020). *Ask Your Pharmacist About Cannabis (APAC): Findings from health professional and pharmacist continuing education*. American Society of Health-System Pharmacists Mid-Year Conference. Virtual presentation. (**Klein, T.,** Ishmael, J. and Munar, M. project mentors)

Geddes, J., **Klein, T.,** Hartung, D. (July, 2020). *Accessing the Oregon frontier: The impact of expanding authority for buprenorphine to nurse practitioners.* OHSU/PSU School of Public Health Annual Conference, Portland, OR. Virtual poster presentation. <https://pdxscholar.library.pdx.edu/publichealthpdx/2020/Posters/10/>

**Klein, T.** (June, 2020). *Accessing the Oregon frontier: The impact of expanding authority for buprenorphine to nurse practitioners.* AcademyHealth Annual Research Meeting, Boston, MA. Invited podium (Conference cancelled, rescheduled for 2021).

**Klein, T.** (June, 2020). *Your patient and cannabis.* American Association of Nurse Practitioners National Conference, New Orleans, LA. (Conference cancelled). Invited podium.

Kaplan, L.and **Klein, T.** (April, 2020). *Teaching about medical marijuana: Has science gone up in smoke?* Invited workshop,National Organization of Nurse Practitioners Conference, Chicago, IL. Virtual workshop presentation.

Wilson, M., **Klein, T.** (September, 2019). *The cannabis controversy: Perceptions of patients, providers and marijuana consultants on cannabis use.* American Society for Pain Management Nurses, Portland, OR. Invited podium.

**Klein, T.** , Kaplan, L., Wilson, M. (July, 2019). *Washington state marijuana law: In the forefront of change.* Research Society on Marijuana, Vancouver, WA. Invited symposium.

Kaplan, L., **Klein, T.,** Wilson, M. and Graves, J. (February, 2019). *Knowledge, practices and attitudes about medical marijuana: A Cross-sectional study of certified marijuana consultants in Washington state.* Academy Health National Health Policy Conference, Washington, DC. Invited poster.

Kaplan, L. **& Klein, T.** (October, 2018). *Knowledge, practices and attitudes regarding marijuana for medical conditions among Washington healthcare providers*. National Council of State Boards of Nursing, Science Symposium, Chicago, IL. Invited presentation.

**Klein, T.** (August, 2018). *The evolutionary stages of prescriptive authority: Empirical and normative considerations.* International Council of Nurses APN Conference, Rotterdam, Netherlands. Invited presentation.

**Klein, T.** and Graves, J.(October, 2017). *The scope of inclusion of academic conflict of interest policies.* American Academy of Nurses Health Policy Conference, Washington, DC. Invited electronic poster.

**Klein, T.** and Graves, J. **(**October, 2017). *Driving after concussion: Advice by nurse practitioners.* Sigma Theta Tau 44th Biennial Convention, Indianapolis, IN. Invited podium presentation.

**Klein, T.** (October, 2017). *NP credentialing: Set your house in order.* American Association of Nurse Practitioners Specialty and Leadership Conference, Reno, NV. Invited podium presentation.

**Klein, T.** (June, 2016). *Prescriber patterns for ADHD: A comparison of NP and physician prescribers.* American Association of Nurse Practitioners National Conference, San Antonio, TX. Invited poster.

**Klein, T.** (April, 2016). *Prescriber variance in childhood ADHD treatment: Findings from Oregon Medicaid 2012.* Western Institute of Nursing 49th Annual Communicating Nursing Research Conference, Anaheim, CA. Invited symposium.

Graves, J. **and Klein T**. (November 2015). *Nurse practitioner assessment and diagnosis of adolescent sports-related concussions*. 143rd American Public Health Association Annual Meeting, Chicago, IL. Invited podium presentation.

**Klein, T.** and Graves, J. **(**October 2015). *Psychiatric nurse practitioner assessment and diagnosis of adolescent sports related traumatic brain injury.* 2015 American Psychiatric Nurses 29th Annual Conference, Lake Buena Vista, FL. Invited poster.

**Klein, T.** and Panther, S**.** (June 2015). *Using naloxone for overdose mitigation: The NP role.* 2015 AANP National Clinical Conference, New Orleans, LA. Invited workshop presentation.

**Klein, T.** and Graves, J. (June 2015). *The PRACTICE study.* 2015 AANP National Clinical Conference, New Orleans, LA. Invited poster presentation.

Graves, J. and **Klein, T. (**May 2015). *Nurse practitioners’ comfort in treating of work-related injuries in adolescents: A survey of Washington and Oregon NPs.* National Occupational Injury Research Symposium CDC/NIOSH, Kingwood, WV. Invited poster.

**Klein, T.** and Erickson, V. (June 6, 2013). *Ask the experts: APRN clinical resources for investigators.* National Council of State Boards of Nursing Disciplinary Management Conference, Annapolis, MD. Seminar presentation.

* + 1. **Non-Refereed Presentations [22 total]**

**Klein, T (moderator),** Dilley, J., Cuttler, C., Kilmer, J., Hasan, D., Pacula, R. (September, 2022). *Panel discussion: Long- and short-term risks of high THC products.* ADAI Symposium, University of Washington. Seattle, WA. Live conference.

Douglas, B., **Klein, T.,** Schauer, G. & Tonani, J. (June, 2022). *Panel discussion: Cannabis regulatory challenges in Washington.* Washington Cannabusiness Association (WACA) Annual Conference, Walla Walla, WA. Live webinar.

**Klein, T.** & Wilson, M. (May, 2022). *Team based care of patients who take opioids.* Palouse Clearwater Medical Conference, Lewiston, ID.

Munar, M.**& Klein, T.**(November, 2021). *Ask your pharmacist about cannabis.*Providence Health Systems, Portland, OR. Live webinar.

**Klein, T.** & Thomas, S. (July 2021). *Cannabis: what nurse practitioners need to know.* American Association of Nurse Practitioners, Austin, TX. Live podcast.

**Klein, T.** (April 2021). *Cannabis: Medical use, misuse, and in-between.* CROP-TR. Washington State University College of Medicine, Spokane, WA. Live webinar.

**Klein, T.** & Hartung, D. (April, 2021). *Expanding Prescriptive Authority to APRNs for Buprenorphine: Acquisition, Access, and Impact.* Research First Friday, Washington State University College of Nursing, Vancouver, WA. Live webinar.

**Klein, T.** and Munar, M. (September 2020-October 2021). *Medical and recreational cannabis: Research, law and practice considerations.* American Association of Nurse Practitioners and Washington State Pharmacy Association. Continuing education module.

**Klein, T.** (June, 2020). *Pharmacotherapy for opioid use disorder: Who, what, when, where, why and how.* Washington State University College of Medicine, Spokane, WA. Continuing education module.

**Klein, T.** & Kaplan, L. (April, 2019). *Medical and recreational marijuana: Research, law, and practice considerations.* Washington State University, Vancouver, WA. Continuing education live presentation.

**Klein, T.** (April, 2019 and 2020). *Nurse practitioner as a career: What do you do besides see patients?* Biology 210, Washington State University, Vancouver, WA. Classroom presentation.

**Klein, T.** (April, 2019). *Pursuing a career as a nurse practitioner.* Ilwaco Hilltop Middle School, Ilwaco, WA. Career day presentation.

**Klein, T.** (July, 2017). *Legislative and prescribing updates for advanced practice nurses.* Acute Care Education, Vancouver, WA. Continuing education live presentation.

**Klein, T.** (May, 2016). *Prescriber variance in childhood ADHD treatment: Findings from Oregon medicaid 2012.* Sigma Theta Tau Beta Psi Chapter, Portland, OR. Webinar.

**Klein, T.** (January, 2016). *APRN prescribing pitfalls and pearls* and *The APRN Consensus Model—implications for practice.* 3rd Annual Legislative and Pharmacology Update: Alaska APRN Alliance Summit, Anchorage, AK. Continuing education presentation.

**Klein, T.** (October 2015). *AANP Region X update and legislative update.* 2015 Nurse Practitioners of Idaho Annual Conference, Boise, ID. Invited keynote.

**Klein, T.** (October 2015). *AANP Region X update and legislative update.* 2015 Nurse Practitioners of Oregon Annual Conference, Sunriver, OR. Invited keynote.

**Klein, T.** (October 2015). *Getting out the vote: The use of polling software in the classroom.* 2015 Tech Ed Conference, Pullman, WA. Invited presentation.

**Klein, T.** (July 2015). *Legal and ethical issues in prescribing.* Acute Care Education, Vancouver, WA. Invited presentation and continuing education activity.

**Klein, T.** (September 26, 2014). *Using adobe forms to teach prescribing.* 2014 Tech-Ed Conference, Pullman, WA. Invited presentation and poster.

**Klein, T.** (October 31, 2013). *Implementing the APRN Consensus Model: Where we are and where we need to go.* 36th Annual Advanced Practice in Primary and Acute Care Conference, Seattle, WA. Invited session.

**Klein, T.** (October 3, 2013). *NPs in Oregon: Looking back, looking forward.* 6th Annual Nurse Practitioners of Oregon Conference, Eugene, OR. Invited keynote.

* 1. **Publications and Presentations Prior to Hire at Washington State University**
		1. **Journal Papers [11 total]**

**Klein, T.** (2011). The 1998 curriculum guidelines and regulatory criteria for Family Nurse Practitioners: What should we be teaching nurse prescribers today? *The Journal of the American Academy of Nurse Practitioners, 24(1).*

**Klein, T.** & Kaplan, L. (2010). Prescribing competencies for advanced practice registered nurses. *The Journal for Nurse Practitioners,* 6(2), 119-122.

**Klein, T.** (2010). The convenient care niche: Is it right for you? *Advance for NPs and PAs, 1(1), 41-43.*

Buppert, C. & **Klein, T.** (2008). Dilemmas in mandatory reporting for nurses. *Topics in Advanced Practice Nursing* *eJournal*, 8(4). Retrieved from <http://cme.medscape.com/viewprogram/18738>.

**Klein, T.** (2008). Credentialing the nurse practitioner in your workplace: Evaluating scope for safe practice. *Nursing Administration Quarterly,* 32(4), 273-278.

**Klein, T.** (2008, September). Do registered nurses need a national provider identifier (NPI)? *Medscape Nurses: Ask the Expert.* Retrieved from <http://www.medscape.com/viewarticle/579984>.

**Klein, T.** (2008). The rules of practice: What you need to know as a new NP. *Advance for Nurse Practitioners Guide for NP Graduates* and *Senior Students, 47-48.*

**Klein, T.** (2007). When to call the BON. *Advance for Nurse Practitioners*, 15(6), 20.

**Klein, T.** (2007). Ask the expert: How long should a visit to a retail clinic take? *Medscape Nurses: Ask the Expert.* Retrieved from <http://www.medscape.com/viewarticle/554799>.

**Klein, T.** (2006). Working in a retail clinic: What nurse practitioners need to ask. *Topics in Advanced Practice Nursing eJournal*, 6(3). Retrieved from <http://cme.medscape.com/viewprogram/5982>.

**Klein, T.** (2004). Scope of practice and the nurse practitioner: Regulation, competency, expansion, and evolution. *Topics in Advanced Practice Nursing eJournal, 4*(4). Retrieved from <http://cme.medscape.com/viewprogram/4188>

* + 1. **Presentations [22 total]**

**Klein, T.**, Schnabel, G., Bratz, P. and Haley, K. (September 30, 2012). *Health regulatory board roundtable discussion.* Oregon State Pharmacy Association Annual Convention, Portland, OR. Invited panelist.

**Klein, T.** (August 8-10, 2012). *Autonomous prescriptive authority for APRN prescribers.* National Council of State Boards of Nursing Delegate Assembly, Dallas, TX. Invited poster.

**Klein, T.** and Fey, M. (July 21, 2012). *Precepting advanced practice nursing students: Protecting and enhancing your practice.* Nurse Practitioners of Oregon, Portland, OR. Invited presentation and continuing education module.

**Klein, T.** (October 27, 2011). *ARPN/APRN alphabet soup and the APRN Consensus Model.* University of Washington ARNP Acute and Primary Care Annual Conference, Seattle, WA. Invited presentation.

**Klein, T.** (October 20, 2011). *OSBN update.* (October 22, 2011). *Dispensing in the office setting: What you need to know.* Nurse Practitioners of Oregon Annual Conference, Portland, OR. Invited plenary session and presentation.

**Klein, T.** (June 25, 2011). *Off label prescribing: It’s legal but…* American Academy of Nurse Practitioners 26th Annual Conference, Las Vegas, NV. Invited presentation.

Bissinger, R., Hartigan, C., Meadows, R., **Klein, T.,** Sperhac, A., Stanley, J., Tanner, S., and Thompkins, D. (April 17, 2011). *Update on organizational activities and issues pertaining to implementation of the APRN Consensus Model.* National Organization of Nurse Practitioner Faculties 37th Annual Conference, Albuquerque, NM. Invited plenary session.

**Klein, T**., Kennedy, D., Tenscher, M., Harrison-Hohner, J. (October 3, 2010). *Prescribing pitfalls: How to stay safe and legal.* Nurse Practitioners of Oregon 33rd Annual Conference, Salishan, OR. Invited panel discussion.

**Klein, T**. (October 1, 2010). *The nuts and bolts of prescribing scheduled drugs*. University of Washington Primary Care Conference. Seattle, WA. Invited presentation.

Kennedy, D. & **Klein, T.** (May 12, 2010). *Interprofessional relationships: Moving from conflict to collaboration. A pharmacy and nursing perspective.* Oregon Health and Sciences Center for Health Ethics, Portland, OR. Invited presentation.

Kaplan, L., Buppert, C. & **Klein, T.** (April 2010). *Teaching students about the professional, legal, and regulatory aspects of prescribing.* National Organization of Nurse Practitioner Faculties Annual Conference, Washington, DC. Armchair discussion.

**Klein, T.** (January 2010). *The need for prescribing competencies for advanced practice nurses.* Institute for Regulatory Excellence Annual Conference. Phoenix, AZ. Podium presentation.

**Klein, T.** & Kaplan, L. (April 2009). *Advanced practice nurse prescribing competencies: Evaluation of prescribing practicum competencies.* National Organization of Nurse Practitioner Faculty Annual Conference, Portland, OR. Invited podium presentation.

Rosenfeld, A., **Klein, T.** & Turner, H. (October 2008). *Development of a clinical prescribing practicum for Clinical Nurse Specialists.* NW Clinical Nurse Specialist Conference, Portland, OR. Invited podium presentation.

Napolitano, M. & **Klein, T.** (April 2008). *DNP competency development for a masters level FNP program*. National Organization of Nurse Practitioner Faculties Annual Conference. Louisville, KY. Invited podium presentation.

**Klein, T.** (January 2007). *National legal and practice issues* and *Oregon legal and practice issues*. Clinical Pharmacology for NPs and Advanced Practice Clinicians course, Fitzgerald Health Associates. Portland, OR. Continuing education presentation.

**Klein, T.** (October 2006). *Defining scope of practice for nurse practitioners: A regulatory perspective*. Arizona Nurse Practitioner Summit. Phoenix, AZ. Keynote presentation.

**Klein, T.** and Butzke, C. (October 2004). *Pediatric eating disorders: Identification, treatment, and referral.* American College of Nurse Practitioners Clinical Conference. Philadelphia, PA. Invited podium presentation.

**Klein, T**. (June 2004). *Eating disorders in children and adolescents for the primary care provider: Nutritional* *assessment*. Presented at the Washington State University School of Nursing, Vancouver, WA. Classroom lecture.

**Klein, T.** (May 21, 2004). *Developing pain contracts*. Prescribe, Deny or Refer? Honing your Skills in Prescribing Scheduled Drugs. Presented at the University of Washington School of Nursing, Seattle, WA. Continuing education module.

**Klein, T.** and Tucker, L. (September 20, 2003). *Defensive charting: An Oregon Board of Nursing perspective*. Presented at the Nurse Practitioners of Oregon Clinical Conference, Eugene, OR. Educational presentation.

**Klein, T**. (May 10, 2001). *Oregon regulatory update* and *Schedule II-IV drugs: Are you ready? Privileges, pitfalls, and responsibilities*. University of Washington School of Nursing, Seattle, WA. Continuing education.

**TEACHING**

# Pedagogy Statement

The two foundational themes in my teaching are 1) exploratory practice and 2) interdisciplinarity. One is a philosophy of how practitioners themselves work to understand their own practice and their own lives (Allwright, 2005). The other concerns how practitioners cognitively relate to each other across disciplinary boundaries (MacLeod, 2018).

**Theme 1: Exploratory Practice**

Exploratory practice uses the classroom as a space to look at problems which may appear to require a fix with a technical solution or rule, such as “cheating,” or “medication error” with an exploratory framework. Students become co-researchers and investigators into ethical and clinical cases and dilemmas. This philosophy can also drive course design. An example of this would be to remove the emphasis on “cheating” with course design methods that encourage exploration of open books and resources, group discussion, concept mapping and collaboration, peer review, annotation, and other methods of demonstrating knowledge than singular memorization. Since medication error and prescribing error are known focuses of malpractice and licensing actions, students can begin to explore the concepts of Just Culture (Marx, 2019) which shifts the focus from error and outcomes to system design and behavioral choices. As a novice, these methods seemed strange and risky. Instead, I find that students embrace them and often surprise me with their visual acuity and creativity as well as thoughtful peer feedback. The inclusion of multiple methods of learning and achieving goals in my courses softens the focus on error and performance, while retaining rigor and practice reflection.

**Theme 2: Interdisciplinarity**

Interdisciplinarity, often emphasized as a value in health care practice, is sometimes thought to be limited by institutional barriers. However, research demonstrates that it is domain specificity which limits interdisciplinary collaboration (MacLeod, 2018). As MacLeod notes, practitioners do not perform well on abstract problem-solving tasks unless those tasks are presented in contexts that embody or situate them in familiar and meaningful environments (p.704). Ironically, this situated knowledge tends to be what we teach to nursing students, to provide them with case studies and real-life situations they are likely to encounter, thus inadvertently further emphasizing domain specificity. In my teaching, I’ve increased my work at assigning and exploring areas of discomfort and flexibility, such as writing case studies in deprescribing complex regimens which have no best answer and may rely on consultation with multiple sources and disciplines to come to a working conclusion. This helps students explore the limits of their domain knowledge, which focuses on medication administration and how to do it “right”. Students learn that there is more than one way to determine and provide individualized therapy, and that a knowledge deficit is not always at the root of lack of adherence to a medication regimen.

Allwright, D. (2005). Developing principles for practitioner research: The case of exploratory practice. *The Modern Language Journal*, *89*(3), 353-366.

MacLeod, M. (2018). What makes interdisciplinarity difficult? Some consequences of domain specificity in interdisciplinary practice. *Synthese*, *195*(2), 697-720.

Marx D. (2019). Patient Safety and the Just Culture. *Obstetrics and Gynecology Clinics of North America*, *46*(2), 239–245. https://doi.org/10.1016/j.ogc.2019.01.003

#  Context Statement

My teaching demonstrates long term integration of interprofessional collaboration and mentorship as well as clinical skill and expertise. I have a lengthy history of both research with and mentorship of pharmacists and other health professionals within and outside of my discipline.

* 1. **Supervision and Mentoring**

In addition to teaching graduate level pharmacology and rational prescribing principles to nurse practitioner students, I have been an integral part of the Oregon Health and Sciences University’s teaching residency program for PharmDs since 2015. As a preceptor and affiliate faculty, I supervise development of learning plans and lectures, mentor and provide feedback and evaluation of test question writing and provided classroom evaluations and item analysis to PharmD’s for their teaching portfolios. This chart identifies those who have been supervised by me in their classroom experience at WSU. For many it was their first time working with NP students.

* + 1. **Postdoctoral PharmD Teaching Resident Supervision and Mentoring**

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **PharmD** | **Year** | **PharmD** |
| **2021 – 2022****(13 residents)** | Lexi Altameier, Pharm.D. Taylor Hammack, Pharm.D.Taylor Birkland, Pharm.D. Henry Nguyen, Pharm.D.Morgan Garlington, Pharm.D. Tracee Mock, Pharm.D.Katelyn Comer, Pharm.D. Ivana Wu, Pharm.D.Michelle Gao, Pharm.D. Lily He, Pharm.D.Madeline Seidel, Pharm.D. Kelli Hoang, Pharm.D.Katie Grimley, Pharm.D | **2019 – 2020** **(12 residents)** | Jordan Hurley, Pharm.D. Shannon Khal, Pharm.D.Emily Wentzke, Pharm.D. Madeline Grant, Pharm.D.Brittany Mellagard, Pharm.D. Rachel Lukas, Pharm.D.Jae Bing, Pharm.D. Cole Dawson, Pharm.D.Christina Putnam, Pharm.D. Dylan Ren, Pharm.D.Elle Blouin, Pharm.D.Hannah Ketch, Pharm.D. |
| **2017-2018****(13 residents)** | Kelsey Rastello, Pharm.D. Jessica Hua, Pharm.D.Mark Gehrig, Pharm.D. Julia Zhukov, Pharm.D.Mike Curcio, Pharm.D. Glecille Salonga, Pharm.DKarissa Lee, Pharm.D. Alfredo Alvarez, Pharm.D.Julia Courtney, Pharm.D. Katie LaRue, Pharm.D.Christina Peterson, Pharm.D. Stephanie Potter, Pharm.D.Tran Pham, Pharm.D. | **2015 – 2016** **(10 residents)** | Bryan Sears, Pharm.D. Alex Miller, Pharm.D.Megan Feeney, Pharm.D. Paulina Nguyen, Pharm.D.Laura Pahlmeyer, Pharm.D. Amanda Hack, Pharm.D.Kristen Senyk, Pharm.D. Shadi Khosravi, Pharm.D.Madison Block, Pharm.D.Angela Yuen, Pharm.D. |

* + 1. **Post Tenure Doctoral and Master’s Committees**

In addition to PharmD teaching resident supervision and training, I have also served as committee member or external member for Doctoral and Master’s Committees.

1. **Doctoral Committees**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Years** | **Title/Topic** | **Methods** | **Locale/Discipline** |
| Jonah GeddesOHSU/PSU School of Public Health (Role: External Member) | 2022 - Present | Long Term Benzodiazepine Use, Tapering and Discontinuation Outcomes in Oregon Medicaid Patients | Retrospective target trial emulation (TTE) | LocalPublic HealthPortland, OR |
| Autumn DeckerWSU Prevention Science (Role: Committee Member) | 2022 – Present  | Death Preparedness and End of Life Care Decision-making | Mixed methods design: quantitative pre-post caregiver survey and structured interviews | RegionalPrevention SciencePullman, WA |
| Martha WhitfieldQueens University College of Nursing (Role: External Member) | 2021 – Present | Conceptual Analysis of Capability in Advanced Practice Nursing | Mixed methods design: phenomonography, concept analysis, and structured interviews | InternationalNursingOntario, CA |
| Katie PietzWSU Prevention Science (Role: Committee Member) | 2019-2020 | Correlation of State and National Policies Regarding Concussion Management with Patient Outcomes | Quantitative bivariate and regression analysis | RegionalPrevention SciencePullman, WA |

1. **Masters Committees**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Years** | **Title/Topic** | **Methods**  | **Locale/Discipline** |
| Marie GrayWSU Prevention Science (Role: Committee Member) | 2020-22 | Non-Urban Care: How Mental Health Needs Influences Access to Care | Descriptive, bivariate and multiple logistic regression analysis | RegionalPrevention SciencePullman, WA |

1. **Masters Committees: Pre-Tenure**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Years** | **Track** | **Locale/Discipline** |
| Kristin Hauke WSU(Role: Committee Member) | 2018 | BSN Honors | RegionalNursingSpokane, WA |
| Jacquelyn Deichman WSU(Role: Committee Member) | 2018 | BSN Honors | RegionalNursingSpokane, WA |
| Katie Pietz WSU (Role: Committee Member) | 2018-2019 | MS Prevention Science | RegionalPrevention SciencePullman, WA |
| Eric Nash WSU (Role: Committee Member) | 2017 | MN Family Nurse Practitioner | LocalNursingVancouver, WA |
| Catherine Shannon WSU (Role: Committee Member) | 2017 | MN Family Nurse Practitioner | LocalNursingVancouver, WA |
| Janine Garner WSU (Role: Committee Member) | 2017 | MN Family Nurse Practitioner | LocalNursingVancouver, WA |
| Rogelio Lugo University of Utah (Role: External Member) | 2016-2017 | DNP Adult/Gerontology Practitioner | RegionalNursingSalt Lake City, UT |
| Melissa Dubec WSU(Role: Chair) | 2016 | MN Family Nurse Practitioner | LocalNursingVancouver, WA |
| Nikkiel Lefebre WSU (Role: Committee Member) | 2016 | MN Family Nurse Practitioner | LocalNursingVancouver, WA |
| Ben Matthews WSU (Role: Committee Member) | 2016 | MN Family Nurse Practitioner | LocalNursingVancouver, WA |
| Jeannine Yates WSU (Role: Committee Member) | 2015 | MN Family Nurse Practitioner | LocalNursingVancouver, WA |
| Laurel Tor WSU (Role: Committee Member) | 2015 | MN/DNP Family Nurse Practitioner | LocalNursingVancouver, WA |
| Jimmy Truong WSU (Role: Committee Member) | 2015 | MN/DNP Family Nurse Practitioner | LocalNursingVancouver, WA |
| Acacia Syring WSU (Role: Committee Member) | 2014 | MN/DNP Family Nurse Practitioner | LocalNursingVancouver, WA |

* 1. **Graduate Student Advising**

As a Family Nurse Practitioner, I serve as the primary advisee for graduate students in this track except for one advisee in 2021 who switched tracks but asked to continue with me as his advisor. I actively meet with each advisee 1-2 times yearly and am responsible for directing their annual review.

|  |  |
| --- | --- |
| **Year** | **Number of Advisees** |
| 2021-2022 | 19 |
| 2020-2021 | 20 |
| 2019-2020 | 17 |
| 2018-2019 | 13 |
| 2017-2018 | 12 |
| 2016-2017 | 12 |
| 2015-2016 | 15 |
| 2014-2015 | 10 |
| 2013-2014 | 1 |

* 1. **Teaching Assignments**

 2023 NURS 573: Rational Prescribing (Spring)

 2022 NURS 563: Advanced Pharmacological Concepts and Practice (Fall)

NURS 573: Rational Prescribing (Spring)

 2021 NURS 563: Advanced Pharmacological Concepts and Practice (Fall)

NURS 573: Rational Prescribing (Spring)

 2020 NURS 563: Advanced Pharmacological Concepts and Practice (Fall)

 NURS 573: Rational Prescribing (Spring)

 2019 NURS 563: Advanced Pharmacological Concepts and Practice (Fall)

NURS 573: Rational Prescribing (Spring)

NURS 584 Healthcare Law, Regulation and Policy Analysis (Spring)

 2018 NURS 563: Advanced Pharmacological Concepts and Practice (Fall)

 NURS 584: Healthcare Law, Regulation, and Policy Analysis (Spring)

 2017 NURS 563: Advanced Pharmacological Concepts and Practice (Fall)

 NURS 584: Healthcare Law, Regulation, and Policy Analysis (Spring)

 2016 NURS 563: Advanced Pharmacological Concepts and Practice (Fall)

 NURS 507: Health Policy (Spring)

 2015 NURS 567: Primary Care of Adult and Elders (Fall)

 NURS 507: Health Policy (Spring)

 2014 NURS 567: Primary Care of Adult and Elders (Fall)

 NURS 573: Rational Prescribing (Summer)

 NURS 563: Advanced Pharmacological Concepts and Practice (Spring)

* + 1. **Co-Teaching**

 2017 NURS 513: Primary Care I: Health Promotion, Disease Prevention and Disease

 Detection (Spring)

 Co-Faculty: Sarah Fincham, DNP, ARNP

 2016 NURS 557: Concepts of Practice Transformation (Spring)

 Lead Faculty: Catherine Van Son, PhD, RN, ANEF

 2015 NURS 563: Advanced Pharmacological Concepts and Practice (Spring)

 Lead Faculty: Tracy Klein, PhD, FNP

 2013 NURS 567: Primary Care Adult and Elders (Fall)

 Lead Faculty: Sandy Carello, PhD, FNP

 2013 NURS 570: Clinical Decision-making (Fall)

 Lead Faculty: Linda Eddy, PhD, PNP

* + 1. **Course Development**

 2013 NURS 573: Rational Prescribing (Summer)

 2017 NURS 513: Primary Care I: Health Promotion, Disease Prevention and Disease Detection (Spring)

Co-Faculty: Sarah Fincham, DNP, ARNP

**SERVICE**

 **Service Statement**

I have demonstrated sustained service to the nursing profession and performed many leadership roles at the state, national and international level (see advisory committees and professional membership sections). At WSU my service trajectory has moved from within the College of Nursing and my clinical track (graduate and DNP/FNP committees) to campus level (Diversity and Inclusion, Scholarship, Council of Faculty Representatives) interdisciplinary work to leadership of college wide (Faculty Affairs) and university wide (Faculty Status) committees. I am also currently an elected Senator and serve on a hearings committee for WSU’s Attorney General in addition to my position of the College of Nursing’s Health Policy committee. In 2022 I was also appointed to a 5% FTE position as the Assistant Director of the Center for Cannabis Policy and Outreach. This position, while paid, also incorporates many service coordination activities such as grant review and policy outreach to state and federal authorities and led to a volunteer appointment on the Washington Liquor and Cannabis Board’s Scientific Workgroup.

* 1. **Editorial and Peer Review**
		1. **Columnist**

 2007 – 2010 *Medscape Ask the Expert,* Quarterly Feature

* + 1. **Editorial Review Boards and Manuscript Review**

2022—Present *Clinical Therapeutics*, Reviewer

2020 – Present *International Journal of Health Policy and Management,* Reviewer

2017 – Present *Journal of Nursing Regulation,*Reviewer

2016 – Present *Journal of the American Psychiatric Nurses Association*, Reviewer

2015 – Present *Oregon State Drug Review,**Peer Reviewer*

2015 – Present *Journal of Child and Adolescent Psychiatric Nursing,* Reviewer

2014 – Present *Nursing Outlook,* Reviewer

2014 – Present *Journal of Child and Adolescent Psychopharmacology,* Reviewer

2014 – 2017 *Journal of Nurse Practitioners,* Editorial Board

2013 – Present *Clinical Nurse Specialist,* Reviewer

2011 – Present *Journal of the American Association of Nurse Practitioners***,** Reviewer

* 1. **Consultations and Advisements**

 2009 – Present Legal review and consultation, FNP expert

* Evaluation of medical malpractice and licensing board complaints
* Public and private employment with legal firms representing both plaintiff and respondents

2018 – 2019 National NP Residency and Fellowship Training Consortium,

 Accreditation Training

2004 – 2018 College of Registered Nurses, British Columbia

* Consultant for regulatory development of Nurse Practitioner initial and prescribing role in Canada (2004-2018)
* Trained clinical examiner for OSCE exam (2007-2011)
* Scenario development and adaptation for Objective Structured Clinical Exam (OSCE) (2006-2007)
* Credentials Evaluation Committee for Nurse Practitioner application review (2005-2007)
	1. **Grant Reviewer**

2017 – Present American Association of Nurse Practitioners, Fellows Grant Program

2021 Washington State University, Alcohol, Drug and Research Program (ADARP)

2018 – 2020 American Association of Nurse Practitioners Research Committee,

 Request for Proposals

2018 – 2019 Washington State University, Seed Grant Proposal

2018 Washington State University Vancouver Center for Equity, Inclusion and Diversity, Mini Grant Proposals

* 1. **Faculty Committees**

2020 – 2023 Washington State University

 Faculty Status Committee—Elected (Chair, 2021-present)

 Faculty Senate—Elected (2022)

2018 – Present Washington State University College of Nursing

 Faculty Affairs—Elected (Chair, 2019-2021)

 Health Policy Committee, College of Nursing—Elected (2020-present)

2016 – 2019 Washington State University Vancouver

 Diversity Council—Appointment

2015 Washington State University

Elson Floyd Medical School Accreditation Self-Study Community Response Committee—Appointment

2014 – 2019 Washington State University Vancouver

 Scholarship Review Committee—Appointment

2013 – Present Washington State University College of Nursing

MN/DNP Advisory Committee

FNP Faculty Committee

Graduate Faculty Committee

 2013 – 2016 Graduate Retention and Admissions Committee

Elected FNP representative

* 1. **External Academic Service**

2013 – Present Oregon State University/Oregon Health Sciences University

 College of Pharmacy

 *Preceptor for PharmD Teaching Residencies, Affiliate Faculty*

2019 Loyola University, School of Nursing

 *Tenure and Promotion portfolio review*

2004 – 2013 University of Washington, Continuing Nursing Education

 *Instructor and Planning Committee Member Scheduled Drugs Courses*

 2009-2012 University of Portland, School of Nursing

 *Guest Lecturer*

 2009-2012 Oregon Health Sciences University, College of Nursing

 *Guest Lecturer*