Revised United States Pharmacopoeia Chapter 797 and Revisions to Student Training

by Jeanne Frenzel, PharmD, PhD, BCSCP

The revised United States Pharmacopeia (USP) Chapter 797 became official November 1, 2023. The updated chapter requires more hands-on training for compounding personnel, including training in aseptic technique, manipulation of hazardous drugs, and proper use of personal protective equipment.

One key modification pertains to garbing competency evaluations. While the 2008 version of the chapter mandated garbing and competency evaluations before initiating the preparation of compounded sterile preparations (CSPs), the revised chapter introduces additional requirements. Garbing competency evaluations must now include visual observation, as well as gloved fingertip and thumb sampling (GFT) of both hands. Notably, compounders must successfully complete an initial garbing competency evaluation at least three separate times in succession. Regarding ongoing evaluations, the 2008 chapter required annual visual observation of hand hygiene and garbing, along with GFT for low/medium-risk compounding. In contrast, the 2023 revised chapter necessitates compounders preparing category 1 and 2 CSPs to undergo garbing competency evaluations at least every six months.

Similarly, aseptic manipulation competency evaluations have undergone revisions. The revised 2023 chapter outlines a comprehensive evaluation process, including visual observation, media-fill testing with post-GFT and surface sampling. Ongoing competency evaluations, which were formerly required annually for those compounding in low-risk or medium-risk environments, are now mandated every six months for compounders preparing category 1 and 2 CSPs.

As part of professional development, students engage in hands-on training and skill development in the preparation of CSPs during their P2 and P3 years. Previous student training included visual observation of hand hygiene, garbing competency, and media-fill testing at the conclusion of the P3 year. The revised 2023 chapter requirements have made student training in compliance with the initial garbing competency and aseptic manipulation competency economically unfeasible.

Henceforth, students in their P2 and P3 years will receive only visual observation of hand hygiene and garbing and complete GFT during both years to underscore the significance of hand hygiene during the compounding process. Results of GFT from the 2023 fall semester for P2 students found 45 GFT samples with 0-2 colony forming units and 10 GFT samples with 3 or greater colony forming units. Students were to reflect on their hand hygiene and aseptic technique used during the compounding process.

Should you have any inquiries or require further clarification on these updates, please contact Jeanne Frenzel at Jeanne.Frenzel@ndsu.edu.
Preceptor of the Year Award Information

by Jaxon Schmaltz, Class of 2024

Each year NDSU offers several Preceptor of the Year (POY) Awards in recognition of excellence and commitment to student learning. The POY award is given to preceptors that have shown continuous commitment and excellence in precepting their student(s). Preceptors are nominated by APPE students as they go through their experiential rotations and follows a process in which each nomination for the award is considered by the committee of students to determine which preceptors are most deserving of the award.

All APPE students are encouraged to submit nominations for the POY award. Students are able to submit their nomination at any point during the year via written submission or e-mail to the APPE Director. Nominations are due at the end of the 8th APPE rotation. After the preceptor nominations have been accounted for a committee of three or five student volunteers selects the preceptor of the year. By April 15th, the committee must forward the award to the Dean for final approval, allowing time for the awards to be processed prior to the Hooding Ceremony. Up to one NDSU faculty member and up to two volunteer preceptors are selected for the award each year.

Preceptors are evaluated on their dedication to teaching, availability, approachability, ability to value student thoughts and opinions, ability to enhance student knowledge, and interest and support in the student’s future plans. Students will also provide comments and examples for each category. It is important to note that this does not necessarily mean the preceptor with the greatest number of nominations will win. This allows preceptors who may have only had a few students and had received a strong recommendation from the students to have an equal chance at winning the award. Those that win the award are not eligible for consecutive year awards. Although not every preceptor will win the award, NDSU would like to thank each preceptor for the time and dedication to educate students and further their experiential education.
How to Identify and Understand Microaggressions: Reflect on What You Say

by Rose Yang, Class of 2024

Microaggressions are brief and insensitive statements, questions, or assumptions (whether intentional or unintentional) geared towards traditionally marginalized identity groups, and/or anyone of any background.¹

There are three types of microaggressions:

• Microassaults
• Microinsults
• Microinvalidations

Microassaults are verbal or nonverbal attacks purposefully intended to hurt the victim through discriminatory actions and behavior. Microinsults are messages that can be subtle but convey insensitivity and can demean a person’s identity or background. It is often times unknown to the perpetrator that they are sending a hidden insult to the recipient. Microinvalidations are to avoid, exclude, and invalidate the psychological thoughts, feelings, or experiential reality of racially diverse people.² Experiential education is important because pharmacy students are sent out to learn from their designated site and preceptor. A student who experiences microaggressions in any form at their experiential site, can affect them negatively beyond graduation and into their own clinical practice.

There are many factors that impact a student’s success as a learner such as a preceptors underlying implicit bias, ignorance, and interpersonal interactions. Students are at the center when it comes to their educational experience, and it is imperative that their preceptors and experiential experience allows them to thrive and feel safe.

Microaggressions can be a part of someone’s everyday speaking without realizing it. Preceptor and student conversation is vital, as verbal and electronic forms of communication are needed every day at the experiential site. The outcome of microaggressions can result in a hostile and unwelcoming environment. This can negatively affect students making them feel frustrated and withdraw from interacting with the preceptor and those around them. The student could walk away from the experience unsatisfied.³

Examples of microaggressions¹:

• “Your English is so good”
• “You don’t seem like you grew up poor”
• “You act White for a Black person”
• “How did you get into that school?”
• “But where are you really from?”
• “I can’t say your name, I’ll just call you …”

Questions to reflect on your own participation in microaggressions³:

1. What was my intention?
2. What assumptions are behind what I said or did?
3. What was the impact?
Suggestions for addressing microaggressions⁴:

1. **Interrupt the situation**
2. Ask questions to get at any underlying assumptions.
   a. For ex: What did you mean by that? Can you explain what you mean or what you are trying to say?
3. Acknowledge what happened to the person affected.
   a. For ex: I heard that comment and it didn't feel right.
4. Be an active bystander and explain to the person saying or behaving in a harmful way why their actions had a negative impact, even if unintentional.
   a. For ex: I heard what you said and that was not appropriate. That was not funny, nor should it be a joke again.

- Do not expect students to be experts on any experiences beyond their own and do not make them the representative of their community.
- Do not assume that the groups that you are talking about are not represented in the room.
- Expect and set high expectations from anyone, don’t stereotype those from lower income or different areas as being less intelligent and needing more help.

When a microaggression is not interrupted, it reinforces the person who is stating the microaggression that it is okay and validates their negative behavior.

Resources:

- This video brings awareness of how one can feel: [https://youtu.be/DWynJkN5HbQ](https://youtu.be/DWynJkN5HbQ)
- How to identify microaggressions, learn how to speak in a more inclusive way, and respond to microaggressions: Part 1: [https://youtu.be/e4N50b76cZc](https://youtu.be/e4N50b76cZc) Part 2: [https://youtu.be/HrCqBLoMxTQ](https://youtu.be/HrCqBLoMxTQ)
- [National Association for Equity, Diversity & Inclusion](https://www.nationalassociation.org)
- [American Association for Access Equity and Diversity](https://www.accessdiversity.org)
- [National Diversity Council](https://www.nationaldiversitycouncil.org)
References:


NDSU School of Pharmacy Curriculum
by Sarah Wirz, Class of 2024

The NDSU School of Pharmacy’s didactic curriculum is designed to integrate pharmaceutical sciences, therapeutics, and other pharmacy practice courses such as law and drug literature evaluation over the course of three professional years prior to APPEs. Preceptors are encouraged to give feedback on the NDSU School of Pharmacy curriculum during site visits, site calls or throughout the year. This feedback from preceptors helps to ensure students are ready for practice. Students have their community pharmacy IPPE after P1 year and institutional pharmacy IPPE after P2 year. As students’ competency grows, it is important that they are both trusted with tasks within their scope, as well as provided learning opportunities for content they are unfamiliar with or need more practice with.

For example, prior to their first IPPE, students learn how to use home blood pressure monitors and how to provide an introductory level of medication counseling. However, P1 year does not include therapeutics courses on antihypertensives. In a community pharmacy IPPE, they would be able to conduct a point of care blood pressure screening and do some counseling on prescriptions, but providing higher-level drug information would be an expectation beyond their current capabilities. This is a great opportunity for preceptors to both allow a student to use a skill they have learned, and pair it with teaching opportunities for drugs they are unfamiliar with. P2 students will have a much higher understanding of therapeutics, and can be asked to identify medication-related problems or explain treatment options for certain indications.

It is important for students and preceptors to establish an understanding of the student’s capabilities prior to delegating responsibilities. Students’ pre-rotation learning objectives can be used as a conversation starter to learn more about their areas of confidence and what they’d like to learn and experience while on rotation. This is still true for APPE students, as they may have classes they exceeded in and others that were more difficult for them. Their memory may also need refreshing for content they learned in early semesters of pharmacy school.

While the NDSU curriculum schedule may provide an outlined understanding of a students’ knowledge prior to rotations, all students have unique experiences with learning and have different strengths and weaknesses. Facilitating conversations about expectations, progress, and feedback will help maximize the experience for both the students and preceptors. Student pharmacists should be encouraged as well as challenged to build competency and comfort throughout their rotations.
Software such as ChatGPT, Google Bard, and OpenAI have functionalities for students that may include reading and summarizing articles, constructing outlines for writing assignments or presentations, analyzing data, assessing quality of work, and conducting research. Taking advantage of these resources can increase productivity, improve study habits, and develop a higher quality of performance. However, it is important that students are not “cutting corners” in their learning processes. Communicating expectations and boundaries for utilizing AI to complete assignments will help students use this technology appropriately. Additionally, if your site has policies and procedures in place regarding AI, be sure to share that with them. Students should be reminded of the HIPAA implications of copying patient information into any AI program. Patient-specific information should never be included when analyzing data with AI.

The use of AI as a learning tool is just a fraction of the use of digital health technology. AI-driven interventions are becoming more prevalent across different pharmacy settings. Many different programs are being created and studied to improve patient care such as Cricket Health to improve management of CKD through online education modalities, clinical decision programming to help optimize anticoagulation therapy, and Arine, an AI tool for comprehensive medication management. These programs and many others are still in phases of development and quality improvement, but have great potential for revolutionizing a new approach to patient care.
Keeping up to date on these technologies will be essential to the continuing education of practicing pharmacists, and is encouraged of preceptors and students. There are many ways in which continuing education with AI can be implemented during students' rotations such as:

1. Sharing with students the AI programming already in use at your site.
2. Have students prepare topic discussions or journal club articles to keep healthcare professionals informed on new AI technologies.
3. Encourage students to discover ways to implement AI into your practice site, such as data analysis of research projects.
4. Use AI programming to help provide well-developed feedback to students on journal clubs, topic discussions, and other projects.

References:

Pronoun Usage: Education for Preceptors
by Alisha Halver, PharmD, Class of 2023

“Hi, I’m Alisha, a pharmacist. My pronouns are she/her/hers. How would you like to be addressed?” Sentences like these are becoming more common in healthcare; but why does it matter?

Pronouns are important because they convey part of one’s identity. They are essential for promoting safety, respect, and care for others. The ability to provide holistic and complete healthcare involves integrating the patient’s full identity; this includes their proper pronouns. As healthcare professionals, we can lead by example for any students who come to learn from us. This will help them feel comfortable and safe in a learning space.

As shown in the introduction, the best way to ask for someone’s pronouns is to first state your own and follow up by asking how they would like to be addressed. Do not use the term “preferred” as this implies it is okay to use other pronouns, leading to the chance for the wrong pronouns to still be used. Note that if you are asking people their pronouns, it is important that you ask everyone in the room, and not just the people who you think might have a different pronoun than your first impression. If the wrong pronouns are used, apologize and self-correct by confirming the person’s correct pronouns and consciously noting this for future communication.

One way to help your students and your coworkers to be more comfortable with pronouns in everyday communication is by sharing your pronouns in your email signature and conversations. This is easy to do and reminds people that pronouns can’t be assumed.
Using ‘they’ as a singular pronoun has not historically been a part of many people’s vocabulary. As of 2019, Merriam-Webster included a new definition for “they,” stating it may refer to “a single person whose gender identity is nonbinary.” While this is affirming to have an official definition, a person may still be awkward or uncomfortable using a familiar word in an unfamiliar way. As an example, a preceptor could write an APPE student evaluation in this way: Jordan is exceeding expectations at the midpoint of the rotation. They are able to work up all of the team’s patients prior to rounds and provide evidence-based recommendations. They can continue to work on handoff at the end of the day to the evening pharmacist. By continuing to address everyone’s pronouns regularly, healthcare professionals can be role models for others as we work to ease the stigma and awkwardness over time.

As preceptors, we can have an impact on the way students view professional communication as pharmacists by normalizing non-binary identities. We strive to create a safe learning environment for our students which teaches the next generation of pharmacists how to best treat each other and patients with safety and respect.

Additional Resources
- https://www.ndsu.edu/lgbtq/education_resources/gender_pronouns/
- https://www.prideinpractice.org/articles/transgender-pronouns-guide/

Professional Identity Formation: Education for Preceptors
by Alisha Halver, PharmD, Class of 2023

“Professionalism? Aren’t we all professionals already?” You might think after reading the title. However, this article is not about professionalism. This article will describe the difference between professionalism and professional identity formation (PIF) and will suggest practical ways for you to support your students’ growth of PIF.

Professionalism is the conduct, behavior and attitude of someone in a work or business environment. Professional Identity (PI), on the other hand, is the internalization and demonstration of the attitudes, standards and behavioral norms of a professional community. Another definition is of someone who “thinks, acts, and feels” like they are a member of that profession. Everyone’s professional identity influences how they perceive, present and conduct themselves.

Professional Identity Formation (PIF) is a dynamic, transformative journey that develops over time. PIF includes cognitive and social processes, through which one integrates the knowledge, skills, values, and behaviors of a competent practitioner into one’s own identity and core values. PIF is also influenced by environmental and contextual factors; therefore, it is important for each practitioner to establish their own moral and psychosocial frameworks with which to properly assess new information as they grow in their PI.

Professional Identity Formation continued on next page
PIF is significant because identity constantly adapts through interactions with others who provide feedback, both verbally and subconsciously. Educators play an important part in pushing students to grow their identity. Oftentimes, identity progression is precipitated by a stressful event that requires change or growth as a stress response. The identification or manufacture of suitable “events” is a critical role for educators, as they are the ones responsible for establishing an optimal learning environment for their students.

It is important that we can help students in their times of transition. Educators may offer opportunities for students to engage in communities of pharmacy; find ways to help them think, act and feel a part of the profession and provide supportive environments that validate their PI thoughts and behaviors. The goal is to help students gain authentic experiences in experiential and the classroom. Be sure to align activities with a student’s PI at the time. Experiences/activities differ for a P1 student vs a P4 vs a PGY1 resident. As a P1 student, educators are encouraging growth of the PIF of pharmacy student; a popular approach to promoting students’ PIF is by reflection on the experiences during the rotation. On the other hand, a P4 or resident will be practicing their pharmacist PIF, so training through layered learning would be a valuable tool. Utilizing a layered learning model allows students to hear from their peers and mentors, not just their direct preceptors, so the learner can gain input from a diverse collection of practitioners and clinicians and practice layered learning with their peers or students at the rotation site as well.

Some ideas for a preceptor to do are encourage self-reflection of the transitions that a student goes through as well as the multiple identities each of us hold. Encourage student recognition of influences, people and experiences from their life that have an important effect on them. Discuss ways you can support them in identity development: As preceptors, role model with intentional practice, reinforcing and discussing the student’s experiences, and initiate debriefs after interactions with healthcare workers, patients and situations to reflect.

Additional Resources

ASHP provides a Professional Identity Worksheet for practitioners to help themselves and their students define their professional identity: https://www.ashp.org/-/media/assets/new-practitioner/docs/Professional-Identity-Formation-Worksheet-_ASHP-NPF_Final.pdf


Rotation Management System Changes
by Lisa Richter, PharmD, BCPS, BCCCP, FASHP

All NDSU preceptors should now be enrolled in our new rotation management system, CORE ELMS, that replaces eValue. (ELMS Videos and Resources) If you have not received your login information, please email Rachel.Zachariason@ndsu.edu for assistance. Some CORE emails are blocked, especially by health systems. You can request from Rachel the CORE white list information to pass along to your IT department to facilitate emails being delivered. Alternatively, you can provide a personal email address for emails to be sent to. Please don’t hesitate to reach out if you have any questions about our new system and thank you for your patience as we navigate this system change.
Precepting the Challenging Student - HIPAA Violation
by Teri Undem, MS, RPh

“I can’t believe my student committed a HIPAA violation!”

Over the last ten years in my role as the APPE Director, I have had a few instances where a student has committed a HIPAA violation. One example is when a student looks at their own medical chart while on a hospital rotation. APPE students on rotation have clearance levels above what they would have as a patient. This may lead to greater access to their medical record than they might have as a patient requesting information from their chart. Often, inappropriate access to a chart is not identified until after the student has moved on to their next rotation.

Even though a student may not realize they have committed a HIPAA violation, in this instance, ignorance is not bliss. HIPAA is addressed numerous times in curriculum and this specific example is discussed at length during the P3 year. If you discover that your student has committed a HIPAA violation, please contact the Office of Experiential Education or the School of Pharmacy Dean’s Office.

Center for Collaboration & Advancement in Pharmacy (CAP) Center Updates
By Lisa Nagel, PharmD

The Center for Collaboration and Advancement in Pharmacy continues to grow in 2023! With the support of student pharmacists and pharmacy professionals like you, several additional projects started throughout the year. These range from increasing influenza immunizations throughout North Dakota, supporting the start of immunization practices at community pharmacies, chronic disease patient care, vaccine champions, prescription abandonment and adherence, tobacco cessation, point of care testing, immunization support, geriatric support, antimicrobial stewardship and continued ONE Program and opioid stewardship. We appreciate working with many pharmacy preceptors on projects. Free continuing education is being shared with pharmacists and pharmacy technicians across North Dakota. If you are interested in being involved in pilots or projects with the CAP Center, please contact us at: NDSU.CAPCenter@ndsu.edu. Check out our website and follow us on Facebook & LinkedIn!

Select CEImpact Offerings

- Mastering Journal Club Facilitation: A Toolkit for Engaging Learners (1hr)
- Precept2Practice: Building Confidence in a Clinical Setting (30 min podcast)
- Precept2Practice: Share the Load! Co-Precepting for Learner Success (30 min podcast)
- Crucial Conversations in Experiential Education (1hr)
- Precept2Practice: What Learners Value Most in their Preceptors (30 min podcast)
- Empagliflozin in Patients with Chronic Kidney Disease (1 hr journal club)
- Using Pharmacogenomics to Treat Depression (1hr journal club)
Residency Stats Overview

Congratulations to the record high 31 NDSU graduates who are currently completing a PGY1 residency! NDSU had an 89% match rate, compared to 82% nationally. We would like to extend a thank you to the many dedicated preceptors who helped prepare them, reviewed CVs, wrote letters of recommendation and encouraged them in their journey!

Additionally, we are excited to report six NDSU alumni are currently completing PGY2 programs. The PGY2 programs are in SD (critical care), MN (psych, critical care), NE (critical care) OH (pediatrics) and TX (oncology).
Upcoming Events

IPPE/APPE 2024-2025 rotation schedule available in CORE
Late January/Early February 2024

North Dakota Annual Pharmacy Convention
April 18-21, 2024 - Holiday Inn, Fargo

NDSU Spring Commencement Ceremonies
May 11, 2024 FargoDome

First Day of APPE/IPPE 2024-2025 Rotations
May 20, 2024

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