School of Pharmacy – Worcester/Manchester
Curricular Outcomes

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Domain 1 - Knowledge

1.1 Scientific Thinking (*Learner*) - Seek, analyze, integrate, and apply foundational knowledge of medications and pharmacy practice (biomedical; pharmaceutical; social, behavioral, administrative; clinical sciences; drug classes; and digital health).

Domain 2 - Skills

2.1 Problem- solving Process (*Problem- solver*) - Use problem solving and critical thinking skills, along with an innovative mindset, to address challenges and to promote positive change.

2.2 Communication (*Communicator*) - Actively engage, listen, and communicate verbally, nonverbally, and in writing when interacting with or educating an individual, group, or organization.

2.3 Cultural and Structural Humility (*Ally*) - Mitigate health disparities by considering, recognizing, and navigating cultural and structural factors (e.g., social determinants of health, diversity, equity, inclusion, and accessibility) to improve access and health outcomes.

2.4 Person- centered Care (*Provider*) - Provide whole person care to individuals as the medication specialist using the Pharmacists' Patient Care Process

2.5 Advocacy (*Advocate*) - Promote the best interests of patients and/or the pharmacy profession within healthcare settings and at the community, state, or national level.

2.6 Medication- use Process Stewardship (*Steward*) - Optimize patient healthcare outcomes using human, financial, technological, and physical resources to improve the safety, efficacy, and environmental impact of medication use systems.

2.7 Interprofessional Collaboration (*Collaborator*) - Actively engage and contribute as a healthcare team member by demonstrating core interprofessional competencies.

2.8 Population Health and Wellness (*Promoter*) - Assess factors that influence the health and wellness of a population and develop strategies to address those factors.

2.9 Leadership (*Leader*) - Demonstrate the ability to influence and support the achievement of shared goals on a team, regardless of one's role.

Domain 3 – Attitudes

3.1 Self-awareness (*Self-aware*) - Examine, reflect on, and address personal and professional attributes (e.g., knowledge, metacognition, skills, abilities, beliefs, biases, motivation, help-seeking strategies, and emotional intelligence[50] that could enhance or limit growth, development, & professional identity formation.

3.2 Professionalism (*Professional*) - Exhibit attitudes and behaviors that embody a commitment to building and maintaining trust with patients, colleagues, other health care professionals, and society.

Curriculum Outcomes and Corresponding Curriculum Objectives
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1.1 Scientific Thinking (*Learner*) - Seek, analyze, integrate, and apply foundational knowledge of medications and pharmacy practice (biomedical; pharmaceutical; social, behavioral, administrative; clinical sciences; drug classes; and digital health).

    1.1.1 Develop and demonstrate depth and breadth of knowledge in:
        1.1.1.a biomedical sciences
        1.1.1.b pharmaceutical sciences
        1.1.1.c social sciences
        1.1.1.d behavioral sciences
        1.1.1.e administrative sciences
        1.1.1.f clinical sciences
        1.1.1.g healthcare technology (e.g., informatics, digital health)

    1.1.2 Articulate how knowledge in foundational sciences is integral to:
        1.1.2a clinical reasoning
        1.1.2b evaluation of future advances in medicine
        1.1.2c supporting health and wellness initiatives
        1.1.2d delivery of contemporary pharmacy services.

    1.1.3 Integrate knowledge from multiple foundational sciences to:
        1.1.3a explain how specific drugs or drug classes work
        1.1.3b compare differences among therapeutic regimens
        1.1.3c evaluate the potential value of specific drugs or drug classes in individuals and populations.

    1.1.4 Apply knowledge in foundational sciences to:
        1.1.4a solve therapeutic problems
        1.1.4b advance patient-centered care
        1.1.4c advance population-based care.

    1.1.5 Apply critical thinking skills to evaluate information (e.g., scientific literature, emerging theories, technologies).

    1.1.6 Apply critical thinking skills to determine if information (e.g., scientific literature, emerging theories, technologies)is factual, reliable, accurate,objective, and/or appropriate by systematically examining the problem, evidence, and solution. Critically analyze scientific literature related to drugs and diseases to enhance clinical decision making.

2.1 Problem- solving Process (*Problem- solver*) - Use problem solving and critical thinking skills, along with an innovative mindset, to address challenges and to promote positive change.

    2.1.1 Identify and define the primary problem that has multiple considerations (and possibly more than one viable solution).

2.1.2   Define and prioritize goals along with contextual constraints.

2.1.3   Use an innovative mindset (e.g., being forward thinking, creative, open to testing, comfortable making mistakes and trying again) to consider and develop alternative ideas and approaches to address challenges and/or advance the profession.

2.1.4   Explore multiple solutions by organizing, prioritizing, and defending each possible solution with evidence and/or rationale.

2.1.5   Assess the anticipated and actualized resource implications of decisions (e.g., human, financial, physical resources).

2.1.6   Anticipate positive and negative outcomes by considering assumptions, biases, barriers, inconsistencies, and unintended consequences.

2.1.7   Develop a strategy to implement the most viable solution, including outcome measures.

2.1.8   Reflect on the solution implemented and its effects to improve future outcomes.

2.1.9   Evaluate conclusions by systematically examining the problem, evidence, & solution (using 6 core skills including: interpretation, analysis, evaluation, inference, explanation, and self-regulation).

2.2 Communication (*Communicator*) - Actively engage, listen, and communicate verbally, nonverbally, and in writing when interacting with or educating an individual, group, or organization.

2.2.1   Assess baseline knowledge or skills of individuals or groups to identify needs.

2.2.2   Identify and address barriers, including beliefs and biases that could impact communication and outcomes (e.g., stereotypes, assumptions, time constraints, privacy considerations, space availability, internet disruptions, etc.).

2.2.3   Ensure information is current, relevant, and tailored for the individual or group with whom you are communicating.

2.2.4   Use an organized structure when educating an individual or group.

2.2.5   Use specific communication strategies (e.g., motivational interviewing, conflict resolution, writing progress notes, assessing understanding) to achieve goals.

2.2.6   Actively listen and ask appropriate open and closed-ended questions to gather information.

2.2.7   Evaluate verbal feedback and nonverbal cues to assess how well communication was received and verify if it was interpreted the way intended.

2.2.8   Communicate assertively, confidently, clearly and with empathy to establish rapport, build trusting relationships, and navigate difficult conversations.

2.2.9 Employ clear, concise, and accurate written communication strategies to achieve intended outcomes.

2.2.10 Provide goal-directed feedback to others (e.g., direct reports, trainees, colleagues).

2.2.11 Use technology (e.g., telehealth, digital health applications), media, and other resources (e.g. interpreter services) to facilitate and support communication as appropriate.

2.3 Cultural and Structural Humility (*Ally*) - Mitigate health disparities by considering, recognizing, and navigating cultural and structural factors (e.g., social determinants of health, diversity, equity, inclusion, and accessibility) to improve access and health outcomes.

2.3.1 Engage in self-reflection with the intention to understand how one's personal identities, biases, and experiences may influence one's perspectives, interactions, and decision making.

2.3.2 Demonstrate knowledge about assumptions such as explicit and implicit bias when interacting with others.

2.3.3 Identify the practices and values of cultural humility that foster belongingness with a diverse group of individuals.

2.3.4 Recognize ways to reduce biases and stereotyping.

2.3.5 Discuss strategies for navigating situations where injustices related to diversity, equity, inclusion, and accessibility (DEIA), stigma, bias, and racism are present.

2.4 Person- centered Care (*Provider*) - Provide whole person care to individuals as the medication specialist using the Pharmacists' Patient Care Process

2.4.1 Collect subjective and objective Information related to the patient in order to identify a patient's medication related problems.

2.4.2 Evaluate patient function and dysfunction through the performance of tests and assessments leading to objective and subjective data important to diagnosis and provision of care.

2.4.3 Assess, interpret, and prioritize information and patient data to determine the effects of therapy.

2.4.4 Formulate evidence-based and cost-effective care goals, plans, assessments, and recommendations for persons across the lifespan.

2.4.5 Formulate treatment planning including diagnosing and prescribing.

2.4.6 Implement individualized, person-centered care plans including non-prescription and non-pharmacologic treatments and health/wellness strategies

2.4.7 Follow up and monitor the patient and adjust the care plan as needed.

2.4.8 Document person-centered care related activities.

2.5 Advocacy (*Advocate*) - Promote the best interests of patients and/or the pharmacy profession within healthcare settings and at the community, state, or national level.

2.5.1 Assure that patients' best interests are represented.

2.5.2 Empower patients to take responsibility for, and control of, their health.

2.5.3 Review resources to assist patients in navigating the complex healthcare system.

2.5.4 Ensure patients obtain the resources and care required in the most efficient and cost-effective manner possible.

2.5.5 Explore technology-based communication tools and their impacts on healthcare access and delivery.

2.5.6 Discuss how to advocate in the workplace for yourself and other pharmacy colleagues around important issues (e.g., working conditions, expected performance, patient safety, practice advancement, interprofessional equity)

2.5.7 Demonstrate a commitment to the advancement of the pharmacy profession through advocacy at the local, state, or national level.

2.6 Medication- use Process Stewardship (*Steward*) - Optimize patient healthcare outcomes using human, financial, technological, and physical resources to improve the safety, efficacy, and environmental impact of medication use systems.

2.6.1 Outline the components of typical medication use processes in different pharmacy practice settings.

2.6.2 Describe the role of the pharmacist in impacting the safety and efficacy of each component of a typical medication use process (i.e., procurement, storage, prescribing, transcription, dispensing, administration, disposal, regulatory requirements, monitoring, documentation, and supervising others).

2.6.3 Analyze systems and human-associated causes of medications errors and error-reporting mechanisms.

2.6.4 Explore strategies to reduce/eliminate medication errors

2.6.5 Use of electronic and other technology-based systems (electronic health records) to capture, store, retrieve, and analyze data for use in patient care.

2.6.6   Identify and utilize human, financial, and physical resources to optimize the medication use process.

2.6.7   Apply standards, guidelines, best practices, and established processes related to safe and effective medication use; that is, appropriate for patient, effective for the medical condition, evidence-based, cost effective, and safe.

2.6.8   Utilize continuous quality improvement techniques in the medication use process.

2.6.9   Develop professional documents pertinent to organizational needs (e.g., monographs, policy documents).

2.7 Interprofessional Collaboration (*Collaborator*) - Actively engage and contribute as a healthcare team member by demonstrating core interprofessional competencies.

2.7.1   Work with individuals of other professions to establish and maintain a climate of mutual respect and shared values.

2.7.2   Use the knowledge of one's own role and those of other professions to appropriately assess and address the health care needs of patients and to promote and advance the health of populations.

2.7.3   Communicate with patients, families, communities, and professionals in health and other fields in a responsive and responsible manner that supports a team approach to the promotion and maintenance of health and the prevention and treatment of disease.

2.7.4   Apply relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan, deliver, and evaluate patient/population-centered care and population health programs and policies that are safe, timely, efficient, effective, and equitable.

2.8 Population Health and Wellness (*Promoter*) - Assess factors that influence the health and wellness of a population and develop strategies to address those factors.

2.8.1   Identify personal, social, economic, and environmental factors that influence individual and population health and wellness.

2.8.2   Describe advocacy approaches and efforts that impact individual and population health and wellness.

2.8.3   Outline the steps for conducting a community health needs assessment.

2.8.4   Collect and interpret population-based health and wellness qualitative and quantitative data to assess the needs of a patient population and satisfaction of care.

2.8.5   Evaluate the existing approaches and suggest tailored interventions to maximize health and wellness.

2.8.6 Participate in the development and/or implementation of preventative care strategies for a population (e.g., risk/needs assessment, risk reduction, screening, and education).

2.9 Leadership (*Leader*) - Demonstrate the ability to influence and support the achievement of shared goals on a team, regardless of one's role.

2.9.1 Determine when it is appropriate to use leadership skills, management skills, or both.

2.9.2 Demonstrate understanding of one's role in a team-based situation, including taking responsibility for a leadership or supporting role, when appropriate.

2.9.3 Explore the history (e.g., successes and challenges) of a team before implementing changes.

2.9.4 Develop trusting relationships, actively listen, and value diverse perspectives to promote collaboration and teamwork.

2.9.5 Use persuasive communication when necessary.

2.9.6 Engage team members by building shared goals, gathering input or feedback, utilizing individual strengths, and managing conflict to promote team functionality.

2.9.7 Identify and address factors that affect team morale and performance.

3.1 Self-awareness (*Self-aware*) - Examine, reflect on, and address personal and professional attributes (e.g., knowledge, metacognition, skills, abilities, beliefs, biases, motivation, help-seeking strategies, and emotional intelligence[50] that could enhance or limit growth, development, & professional identity formation.

3.1.1 Use metacognition (e.g., planning, monitoring, and evaluating) to understand and regulate one's own thinking and learning.

3.1.2 Demonstrate motivation (e.g., desire to learn, attention, interest, habits of mind, persistence, flexibility) during didactic and experiential activities.

3.1.3 Identify, create, implement, evaluate, and modify plans, using available resources (e.g., career counselors, mentors) as needed, for personal and professional development for the purpose of individual growth.

3.1.4 Recognize, correct, and learn from errors.

3.1.5 Select and use constructive coping strategies or help-seeking behaviors (personal, professional, or academic support) to manage stress and improve well-being.

3.1.6 Utilize elements of emotional intelligence when working with others.

3.1.7 Reflect on the evolution of one's own professional identity formation (PIF) during the PharmD program and how it will continue to evolve across one's career

3.2 Professionalism (*Professional*) - Exhibit attitudes and behaviors that embody a commitment to building and maintaining trust with patients, colleagues, other health care professionals, and society.

3.2.1 Demonstrate altruism, integrity, trustworthiness, flexibility, compassion, inclusiveness, and curiosity.

3.2.2 Display preparation, initiative, and accountability consistent with a commitment to adding value and/or a commitment to excellence.

3.2.3 Conduct activities and fulfill responsibilities in a legal, moral, and ethical manner.

3.2.4 Describe the impact of one's actions (positive or negative) on how the profession is perceived by patients, other health care providers, and society.

3.2.5 Navigate how to balance between responsibility to self and others, seeking mentoring if needed.

3.2.6 Describe the pharmacy profession's core values and beliefs outlined in the Oath of a Pharmacist and how they contribute to professional identity formation.