RUTGERS HEALTH

A Dose of Mentorship

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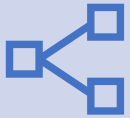
Objectives



Define the framework and benefits to mentoring

Apply evidence-based literature on mentoring

Highlight a digital badging/micro-credentialing program on mentoring for faculty members.

What Is Mentoring?

The formal origin goes back at least to Telemachus, the son of Odysseus, who receives advice from the goddess Athena in the guise of Mentor, an old and trusted comrade of Odysseus.

Traditional Mentoring – “A formal, dynamic, and reciprocal relationship in a work environment between an experienced mentor and a novice (mentee) aimed at promoting the career growth of both (but primarily the mentee).”

Other formats include Coaching (teacher of specific skills or materials), Sponsorship (promoting a mentee for specific opportunities and/or visibility), and Connecting (master networkers who make connections between people with common interests).

Purported Benefits of Mentorship

- Improved grantsmanship
- Augmented academic productivity (both mentee and mentor)
- Better teaching by creating better teachers
- Enhanced career satisfaction and self-efficacy
- Enhanced recruitment and retention of students and junior faculty, including under-represented minorities students and faculty

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Pfund C, et al. AIDS Behav 2016:20:S238-s248

Elements for Effective Mentoring Relationships

Inter/Disciplinary Research Skills

Knowledge, techniques, collaboration, responsible conduct of research

Interpersonal Skills

Listening actively, aligning expectations, building trust

Culturally-Focused Skills

Promoting inclusion, reducing bias and stereotype threat

Psychosocial Skills

Providing motivation, developing a sense of belonging

Sponsorship Skills

Fostering independence, promoting professional development

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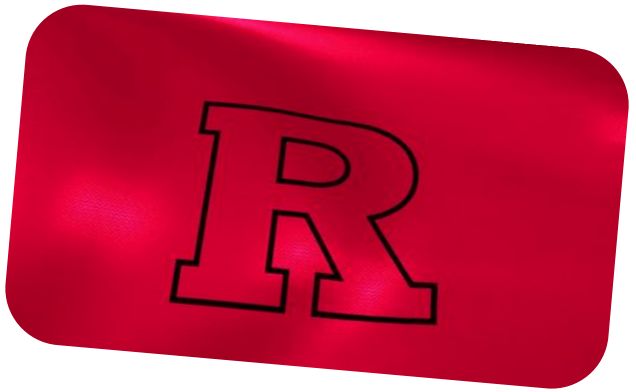
Introduction to Digital Credential Badging



What is badging?

A visual item that represents skills and knowledge you have learned and acquired.

Digital and can be attached to various electronic services

Email signatures

LinkedIn pages or other social media platforms

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How do you get a badge?

Badges can be earned in various ways:

- Non-credit course
- Credit bearing course
- Completing a particular course requirement
- Building upon a competency
- Obtaining knowledge that would be used to increase professional development

Why is badging important?

Digital badges contain metadata displaying how competency was assessed

Presenting a digital badge is an effective way to display learning/mastery of a skill → beneficial for professional development

Badging can also signify achievement, such as with attending a conference or professional event

Benefits to Faculty

PROMOTES ACHIEVEMENTS

CAREER DEVELOPMENT

CONTINUING EDUCATION

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What's new for EMSOP?

A Dose of Mentorship *Badge*

Earners of this badge have defined attributes to effective mentoring relationships.

Clinical and research faculty members

Four pillars of mentoring: communication, aligning expectations, fostering independence, and promoting professional development.

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The Four Modules of Mentoring

1. Maintaining effective communication
2. Aligning expectations
3. Fostering independence
4. Promoting professional development

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Earning Criteria/Learning Outcomes

Attend three seminars with workshops (two hours each)

Projects

Create an individual development plan	Schedule a mentor-mentee meeting	Construct a mentor-mentee case study	Articulate a mentoring philosophy plan.

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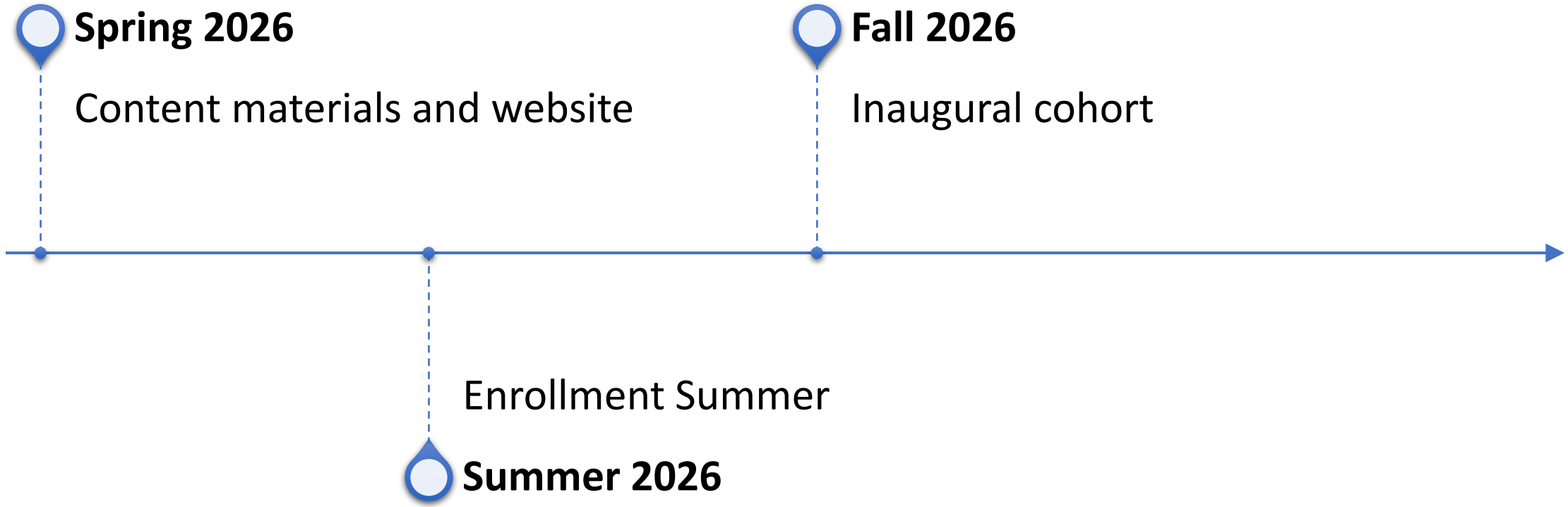
Timeline



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Summary

Mentoring is a collaborative learning relationship among the mentor and mentee.

The digital credential badge is a part of faculty professional development to enhance and develop their skills in mentoring, especially for faculty members who have mentees.

The effectiveness of mentoring is well-documented in the literature.

Successful mentorship is strengthened by professional development, assessment, and a formal mentoring program.

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Professionalised? How far have pharmacy technicians in Great Britain professionalised since mandatory registration?

University of East Anglia Norwich

Melanie Boughen, MA (Health.Ed.)

A little about me

School of Chemistry, Pharmacy and Pharmacology

Director of Pharmacy Technician Education

Profession - Pharmacy Technician

Entering final year of my EdD in October 2026

Background to pharmacy technicians in Great Britain

University of East Anglia Norwich

Mandatory registration with the General Pharmaceutical Council introduced for pharmacy technicians in Great Britain in 2011

Qualification

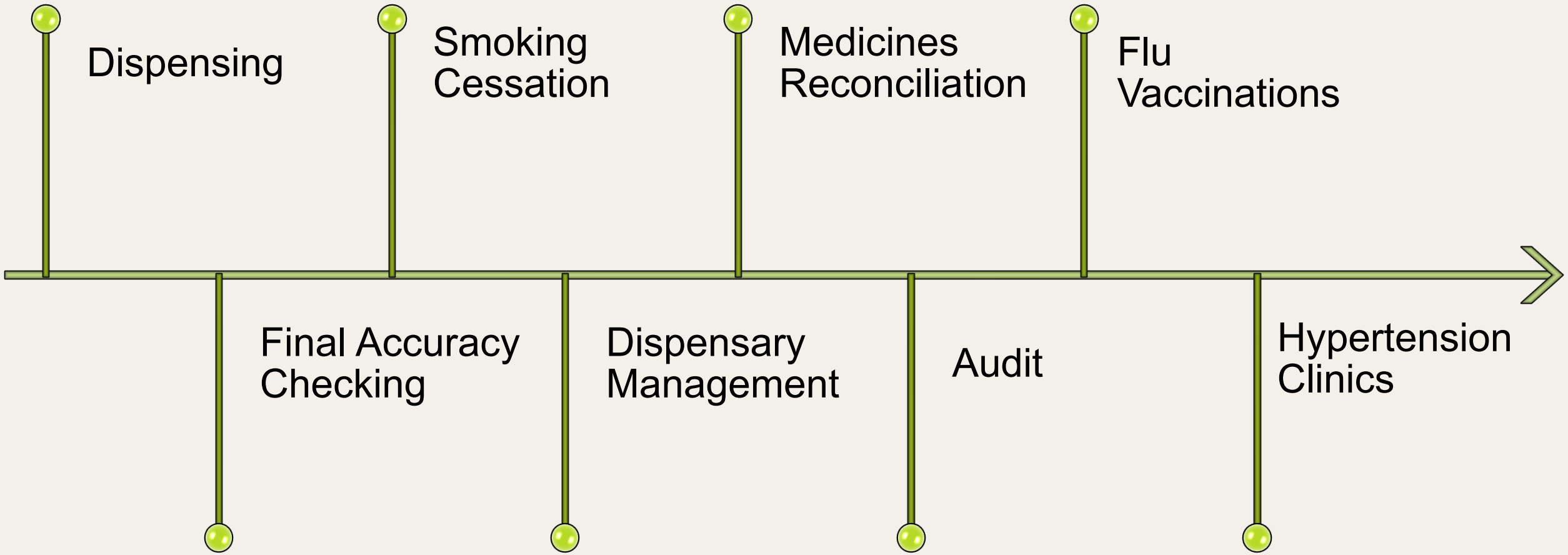
Minimum Level 3 (A-Level equivalent) – UEA and Scotland deliver at Level 4 +

GPhC Standards for Pharmacy Professionals

Pharmacy technician sectors and settings including:

Hospital	Community	Primary Care including GP Practices	Health in Justice (Prisons)	Academia	Armed Forces

Examples of activities include:



What is Professionalisation?

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Defining the term professionalisation has proved challenging and this remains the case today as there is no consensus as to the traits of a profession (Bissell and Traulsen, 2005).

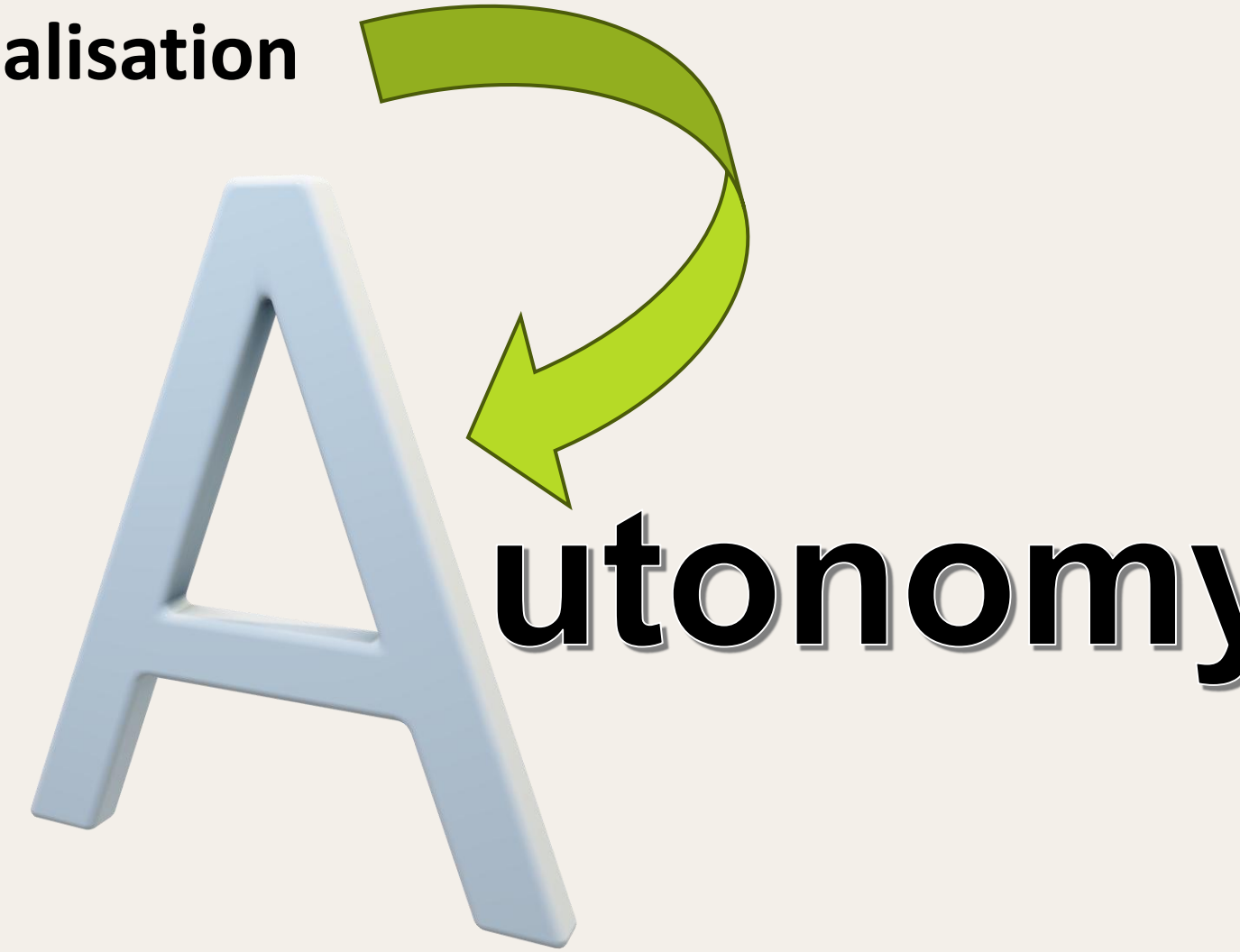
Professionalisation

Professional

Professionalism

Professional identity/recognition

Professionalisation



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Method

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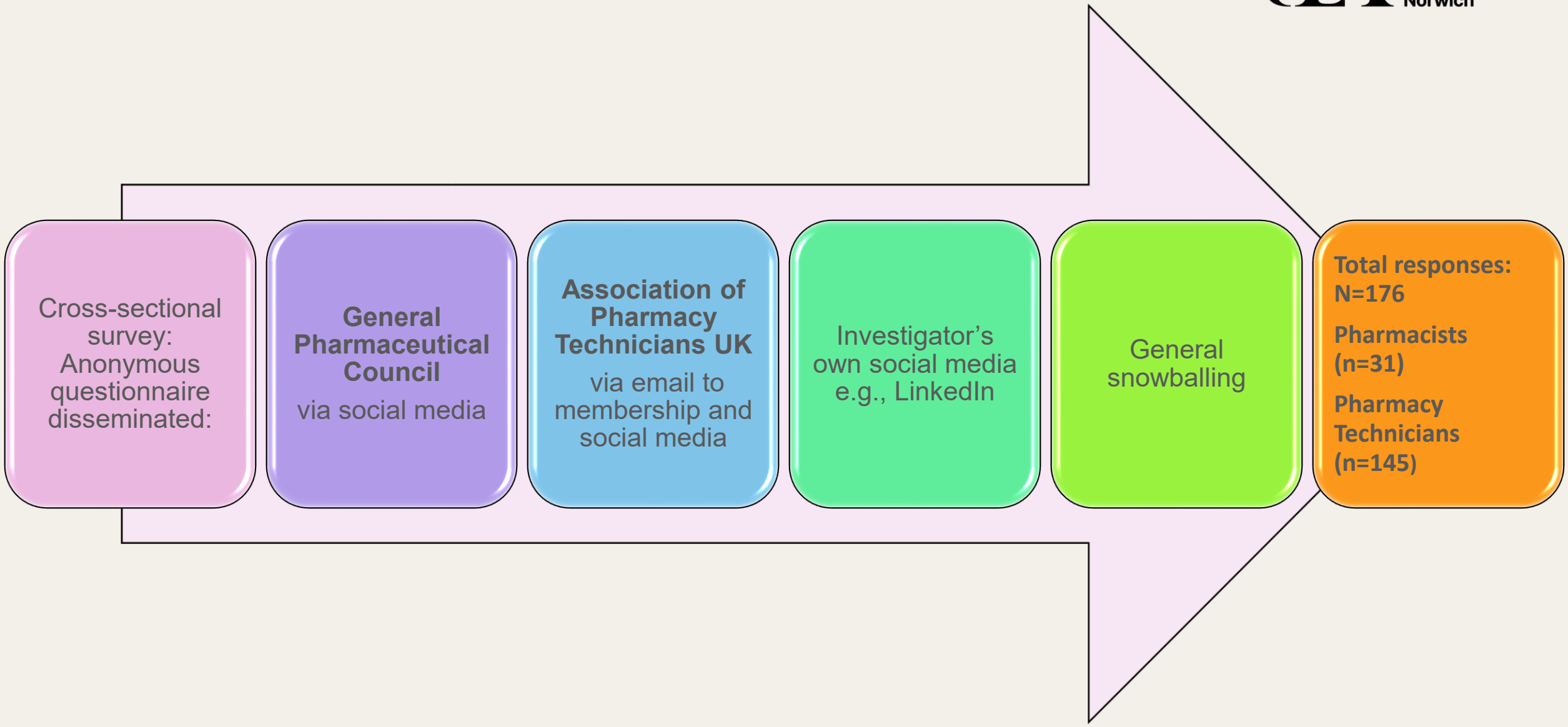

Results: Opinion of autonomous practice of pharmacy technicians in the UK

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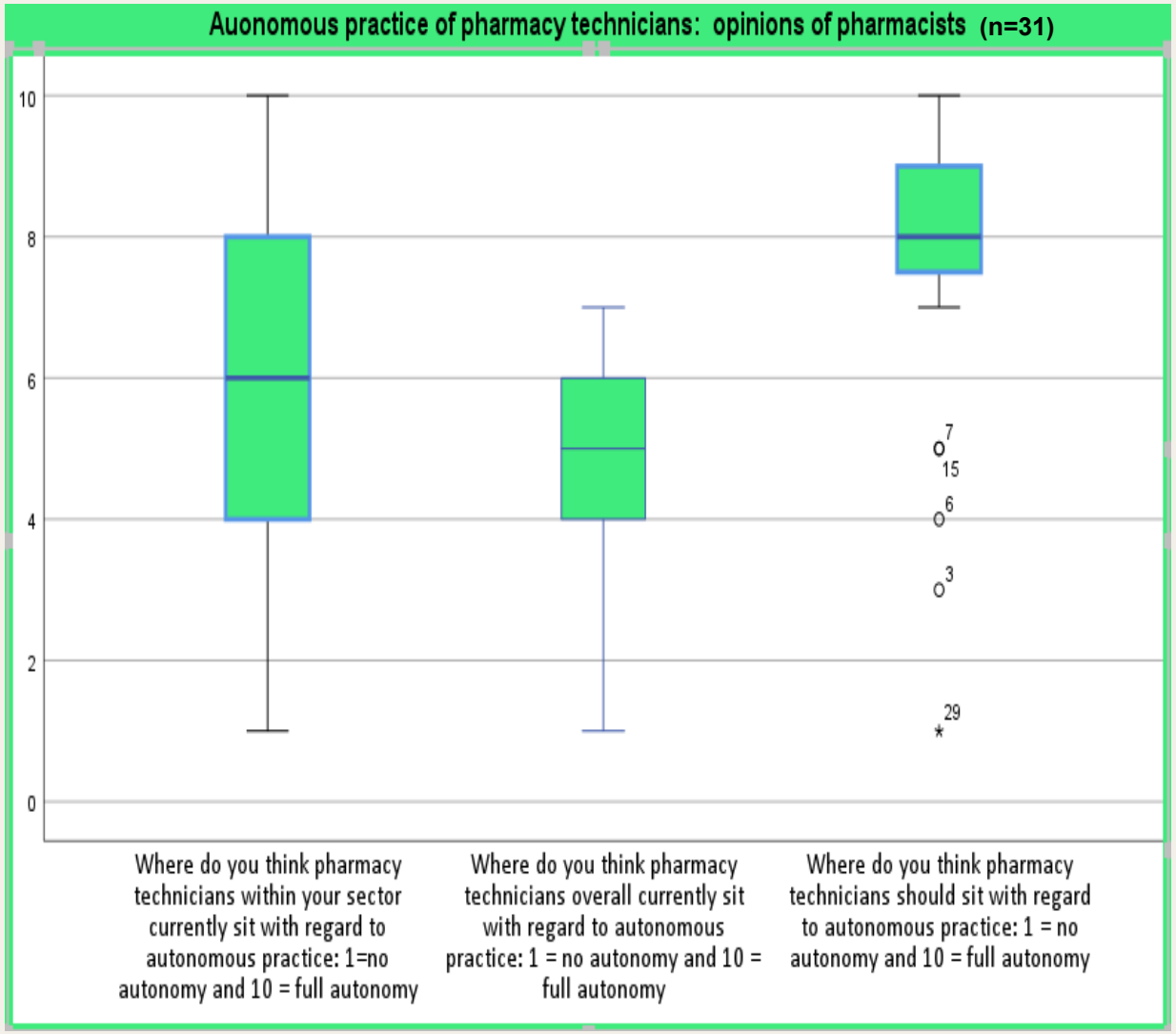
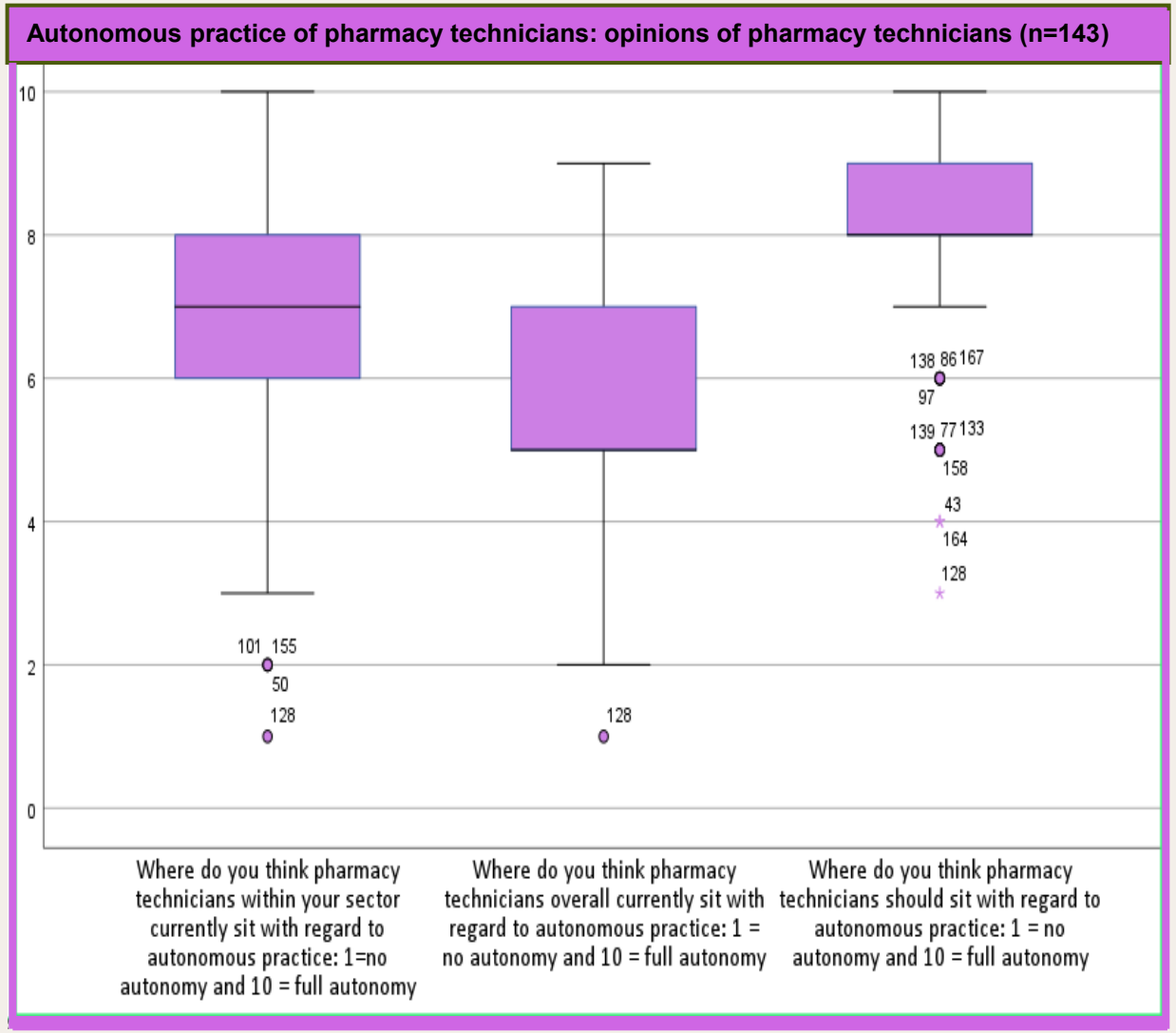
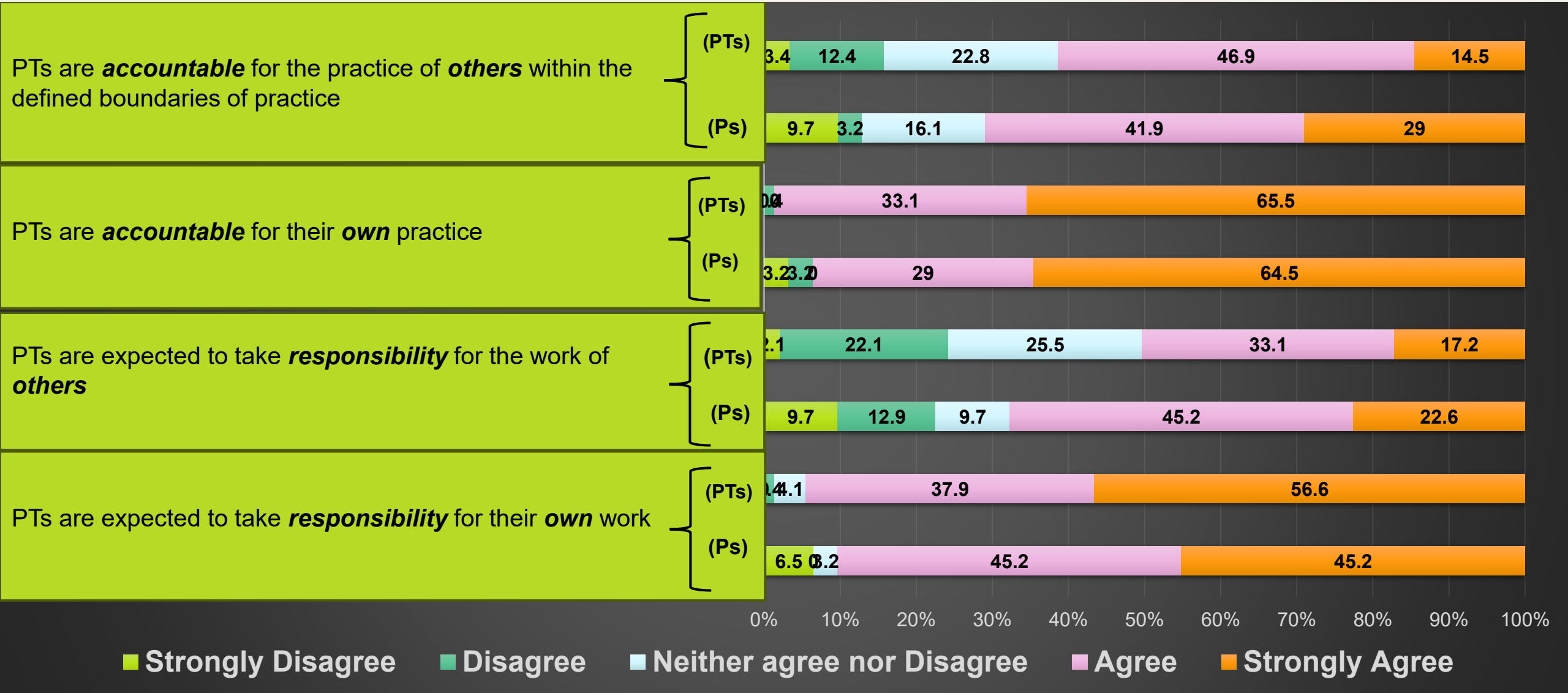


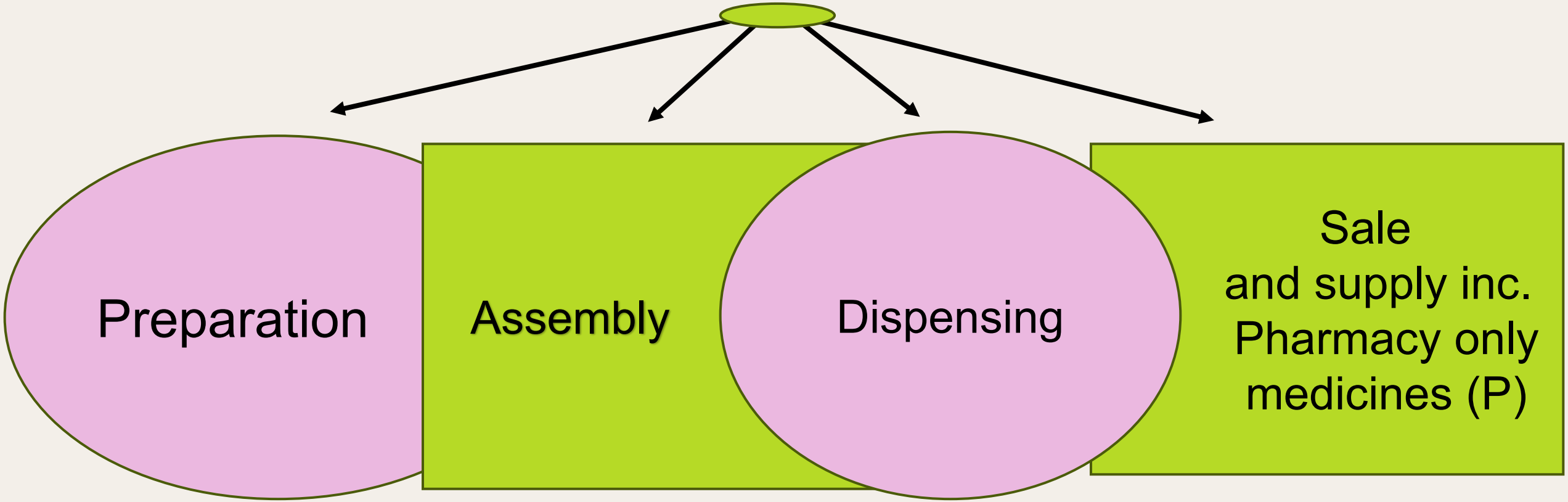


Results: Levels of responsibility and accountability (Likert Scale)



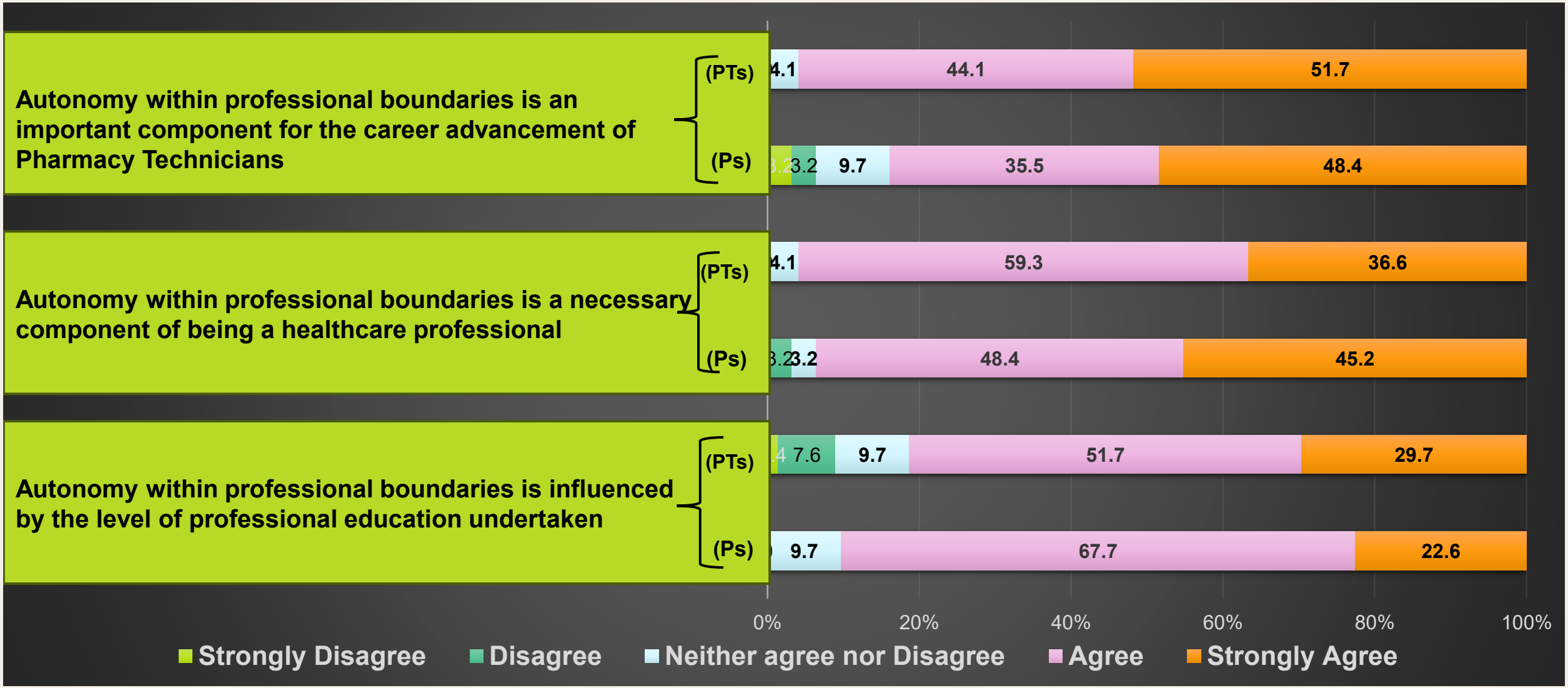
The Human Medicines (Authorisation by Pharmacists and Supervision by Pharmacy Technicians) Order 2025

Pharmacists delegating to pharmacy technicians in their absence



Results: Opinions of Levels of autonomy in pharmacy technician practice (Likert Scale)

University of East Anglia Norwich



Comments from questionnaire

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"Autonomous practice requires the appropriate accredited underpinning knowledge to offer assurance to the public"

"The current baseline level of education for pharmacy technicians is not sufficient to match the level of autonomy required in primary care. There's a big gap that requires lots of self taught and further learning"

"...the majority of pharmacy technicians in developed roles rely on experiential learning... ...more and more pharmacy technicians realising the current limits of our education...we need our education to bring us into alignment with our colleagues working in health and care roles at the same level of practice"

Conclusion

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Professionalisation and increased autonomy is desired

Education to support development leading to increased autonomy

Career pathway to support advancing pharmacy technician practice

Education needs to align to other healthcare professions

Thank you for listening

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Thanks to my supervisors:

Professor J. Desborough

Dr R. Westrup

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Identifying and Developing Leadership Traits in PharmD Students:

Needs Assessment and the Wizard, Warrior & Creative Leadership Program

Kari L. Franson, PharmD, PhD, Patricia A. Chase, PhD, MS, BS,
and John Burt, ACC Executive Leadership Coach

USC Mann

How to develop leaders?

A 2021 USC Mann study confirmed leadership is essential—but inconsistently developed and articulated.

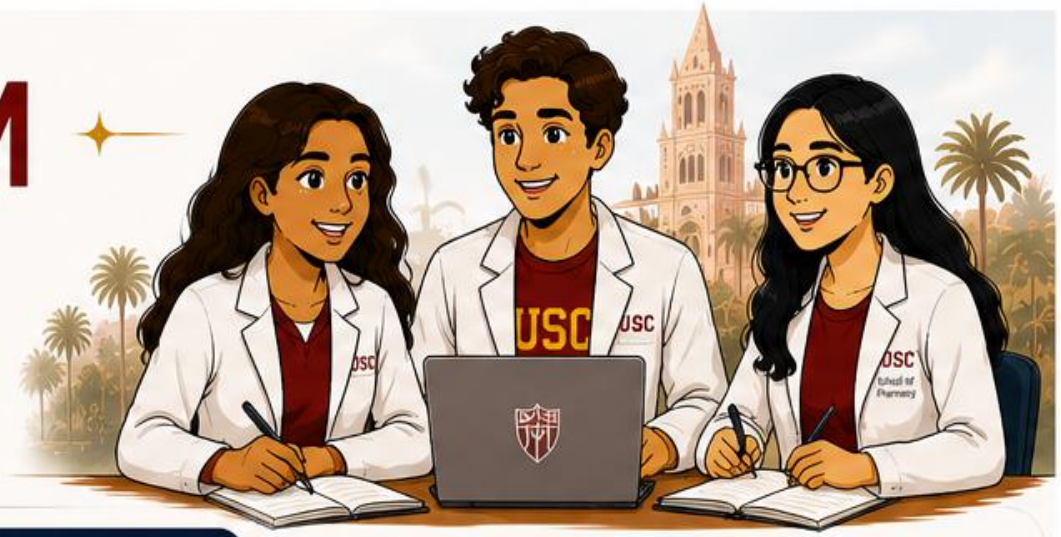
Employers have been telling us:

“Leadership is really important to us…but students, despite all their experiences, struggle to demonstrate it. Sometimes, it even feels like leadership roles are just CV fillers”

USC Mann

Papadopoulos V, et al. Pharmacy 2021, doi.org/10.3390/pharmacy9010059

STUDY AIM



1 MEASURE LEADERSHIP PROFILES

Use the Mattone Leadership Enneagram Inventory (MLEI®) to examine leadership trait profiles and maturity levels across three student cohorts.

MLEI® ASSESSMENT

NOVICES

Students entering the program

CURIOUS LEADERS

Students actively seeking leadership improvement

ESTABLISHED LEADERS

Students recognized for leadership excellence

2 DESIGN A BETTER LEADERSHIP DEVELOPMENT PROGRAM

Use the identified strengths and gaps to create a structured leadership development program that prepares all students for the future of pharmacy.

IDENTIFY
strengths and gaps across cohorts

→

DESIGN
a tailored leadership development program

→

DELIVER
mentorship, training, and real-world application

→

PREPARE
all students for the future of pharmacy

OUR STUDENTS AT BASELINE:
WHO THEY WERE WHEN THEY STARTED

Before leadership training, we measured our first-year pharmacy students (novice leaders) to understand their natural leadership strengths, where they were still developing, and the forces shaping them.

OUR NOVICE STUDENTS AT BASELINE (N=232)

Mattone Leadership Enneagram Inventory (MLEI®)

MOST ACTIVE TRAITS

ARBITRATOR
(Mediation, connection)

ENTERTAINER
(Social expressiveness)

LEAST ACTIVE TRAIT

ARTIST
(Creativity, uniqueness)

Innovation, creativity, and original thinking were their biggest growth opportunity.

FEAR OF BEING "CANCELLED"

Fear of judgment led to self-censorship instead of courageous leadership.

WORRIED ABOUT WHAT OTHERS THINK
High concern about approval, image, and fitting in.

AVOIDED RISK AND DISCOMFORT
Stuck in safe choices to avoid criticism or failure.

SILENCE OVER INFLUENCE
Held back from speaking up, challenging ideas, or leading with conviction.

THEY CAME IN AIMING FOR ACCEPTANCE.

OUR GOAL: TO EMPOWER THEM TO LEAD WITH IMPACT.

What if we stopped thinking about leadership as something students hold… and started thinking about it as something they actively **practice**?

What if leadership development wasn't passive, but **structured**… **mentored**… and **measurable**?

The Wizard
brings magic, insight and self-awareness

The Warrior
is not afraid to step up and take action

The Creator
imagines new possibilities

The program begins with a **Summer Bootcamp.**

This is where the energy shifts.

Students **don't just listen**—they:

- **Work through** simulations
- **Apply leadership** frameworks
- Begin shaping their **Bodacious Goals**

They also complete **baseline leadership assessments.**

Immediately after Bootcamp:

88.4%

of students reported feeling **inspired** to improve as leaders.

Then, **throughout the year:**

They refine their goals

Meet with mentors

Report progress at structured intervals

At the end, they **revisit their assessments** and receive a **before-and-after snapshot** of their leadership traits.

They can now say,

"Here's how I grew—and here's the evidence."

They applied multiple lenses to real challenges (*Wizard & the Warrior*)

They understood and respected different perspectives (*What Color is Your Brain*)

They used creativity and experimentation to drive impact (*Innovator's DNA*)

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We also saw this come to life through their projects.

Students didn't just learn leadership—they **executed it** through initiatives like:

Partners in Health Program

A collaboration between PharmSC and LAP-NHPA

BIG MAC

Building and Investing in Growth through Mentorship, Acquaintanceship, and Connection

Harm Reduction at USC

These weren't theoretical exercises—
they were **real, sustained** organizational efforts.

What students had to say:

One student shared:

> The four frames taught us the importance of adapting in real time and responding effectively when unexpected challenges arise.

Another reflected:

> We learned that effective leadership requires simultaneously considering systems, people, power dynamics, and meaning… Looking at challenges through multiple lenses allowed us to create a more thoughtful, inclusive, and impactful initiative.

And importantly—students began to internalize what leadership actually requires:

> Being a leader means sacrifice. It's not an easy role, but it's rewarding… seeing our events grow made me proud. It showed me that the effort, time, and care I put in truly made an impact.

THE SHIFT IS REAL.
OUR STUDENTS LED THE CHANGE.

> *The price of excellence is discipline.*
> *The cost of mediocrity is disappointment."*
> – William Arthur Ward

Results from one cohort (N = 20) before and after structured leadership development

TRAIT SHIFTS: BEFORE → AFTER

Change in students showing an increase vs. decrease in key leadership traits

ARBITRATOR (Mediation, connection)	↓	More students showed a decrease
ENTERTAINER (Social expressiveness)	↓	More students showed a decrease
DRIVER (Assertiveness, ownership)	↑	More students showed an increase
THINKER (Analysis, critical thinking)	↑	More students showed an increase

KEY SHIFTS AFTER TRAINING

85% increased at least one **authority or execution-focused trait**

53% showed a decrease in **social harmony or influence traits**

Improvement in **Artist** (creativity, innovation, originality) was observed across the cohort.

WHAT THIS MEANS

Which may sound counterintuitive—
but it actually reflects growth.

A SHIFT FROM:

IMAGE-ORIENTED LEADERSHIP

Focused on approval, appearances, and being liked.

TO:

EXECUTION-ORIENTED LEADERSHIP

Focused on impact, ownership, and getting results.

STRUCTURED LEADERSHIP DEVELOPMENT DIDN'T JUST BUILD EXPERIENCE—IT CHANGED HOW OUR STUDENTS LEAD.

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THE MOST IMPORTANT FINDING

LEADERSHIP IDENTITY IS NOT FIXED

Professional students are still *becoming* leaders.

WHERE THEY ARE TODAY

YOUNG. CURIOUS. STILL FORMING.

- Identity still forming
- Exploring leadership
- Learning through experience

STRUCTURED LEADERSHIP DEVELOPMENT

SHAPES TODAY. BUILDS TOMORROW.

WIZARD
Insight & Self-Awareness
Know yourself.
Lead yourself.

WARRIOR
Action & Ownership
Step up.
Take responsibility.

CREATOR
Innovation & Possibility
Think differently.
Create impact.

WHERE THEY CAN GO

CONFIDENT. CAPABLE. IMPACTFUL.

- Leading teams
- Mentoring others
- Driving change
- Creating impact

LEADERSHIP IDENTITY *CAN MEANINGFULLY EVOLVE.*

Students are not finished leaders. They are becoming leaders.

USC Mann

We are willing to share more about our program

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Please reach out!

UNIVERSITY OF TORONTO
LESLIE DAN FACULTY OF PHARMACY

Hidden Curricula and Mental Health: Pharmacy Students' Perspectives Driving Curricular Reform

A qualitative study of misalignment between institutional messaging and lived experience

Jamie Kellar, BScHK, BScPhm, PharmD, PhD & Heather Abela, MPH
Leslie Dan Faculty of Pharmacy, University of Toronto

Pharmacy Education Symposium
July 6, 2026, Prato, Italy

Background and Gap

- Increasing rates of mental health (MH) problems among university students in recent years[1]
- Pharmacy students face unique structural stressors[2-3]
- Despite expanded university services, low uptake amongst students persists[4]
- We lack understanding of how pharmacy education environments shape help-seeking.
- This disconnect led us to explore how the pharmacy education environment may be shaping students' perceptions and behaviours in unintended ways.

Research Objectives

1. To explore pharmacy students' personal definitions and conceptualizations of mental health and wellness

2. To investigate the role of peer, academic, and institutional cultures in shaping these perceptions.

3. To examine how students' perceptions of mental health services (e.g., effectiveness, confidentiality) influence their utilization of these services.

4. To identify the emotional and academic stressors contributing to mental health challenges among pharmacy students.

Methods

- **Methodology**: Qualitative, using semi-structured interviews
- **Recruitment**: Convenience sampling
- **Sample**: n = 25 current PharmD students at U of T (years 1 through 4)
- **Data Collection**: Interviews conducted March-May 2025 over Zoom by research coordinator
- **Analysis**: Reflexive thematic analysis (Braun & Clarke[5], 2006) using NVivo 15, involving iterative coding and theme development
- **Positionality**: HA is a research associate, non-pharmacist & JK is a pharmacist, educator, and academic administrator

Results

Students' accounts revealed a hidden curriculum emerging from three interacting domains:

1. Institutional Messaging and Communication

2. Academic Policies and Procedures

3. Curriculum and Teaching Practices

1. Institutional Messaging and Communication

Perceived messaging and communication:

- Performative and superficial, with contradictory messages
- Impersonal and generic

Impact on students:

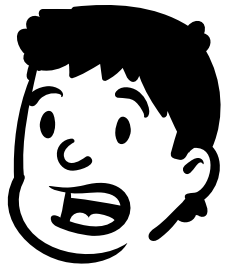
- MH services as unapproachable, limiting help-seeking
- Mistrust of faculty messages, damaging their connection

Students' preferences:

- Personable and authentic communication
- Reciprocal dialogue

Interpretation: Disconnect between communication from Faculty and student experiences undermines help-seeking.

This faculty, maybe, isn't like addressing things as openly as like I guess a student would hope.
(3rd Year Student)



2. Academic Policies and Procedures

Perceived academic policies and procedures:

- Unfairly punitive
- Administratively complex and burdensome

Impact on students:

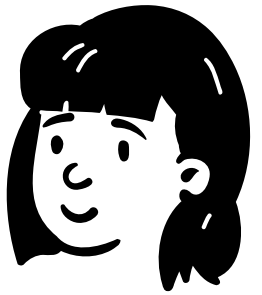
- Imposes structural barriers to seeking accommodations or deferrals
- Reluctance to take sick days in experiential training, reducing help-seeking

Students' preferences:

- Administrative and procedural changes to improve process
- Structural changes to academic policies

Interpretation: Policies function as a structural barrier embedded within the hidden curriculum.

You're giving [students] the independence to make this decision for themselves.
(4th Year Student)



3. Curriculum and Teaching Practices

Perceived curriculum and teaching:

- Unnecessarily burdensome
- Inflexible and excessively heavy

Impact on students:

- Worsened MH
- Constrained capacity for self-care and help-seeking

Students' preferences:

- Restructured curriculum, including assessments and content
- Consideration of student/life balance

Interpretation: Students experience the curriculum itself as the primary driver of distress.

The less stressed that people are, the more they learn.… [A] more generous person-centered approach, I think, is better
(4th Year Student)

Discussion – What We Found

- Misalignment between what is said vs. what is experienced
- Hidden curriculum communicates:
  - Endurance
  - Self-sacrifice
  - Institutional protection
- Together, these domains reflect a misalignment between espoused values and enacted practices.

Discussion – Why It Matters

This Hidden Curriculum:

- Undermines help seeking
- Shapes professional identity
- Risks normalizing burnout

Discussion – What It Suggests

- MH is not just services – it is curriculum + policy design
- Need structural, not just supportive interventions
- Addressing student mental health, therefore, requires redesign of educational structures – not expansion of services alone.

Conclusions & Next Steps

Conclusions

- A hidden curriculum related to mental health exists in pharmacy education
- Misalignment between messaging and structures undermines trust
- Structural changes (policy, curriculum design) are required

Next Steps

- Co-design with students
- Policy reform (part of our curriculum renewal project)
- Evaluate impact of curricular redesign

Final Thought…

If we want to improve student mental health, we must stop treating it as a service problem and start treating it as a curricular design problem.

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Does Group Leadership Training Move the Needle?

Growth Mindset and Imposter Phenomenon in a Cohort-Based Leader Academy

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Past President – Phi Lambda Sigma, the Pharmacy Leadership Society

Pharmacy Education Symposium 2026 – Prato, Italy

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AI Disclosure: Claude.ai (Sonnet 4.6; Anthropic, PBC, San Francisco, CA) was used to assist with initial visual design and slide layout for this presentation. The presenter reviewed and edited all content and takes full responsibility for its accuracy.

Background

GROWTH MINDSET

Dweck (2006):
Belief that intelligence and skills can develop over time

Measured by the ITIS
8-item, 6-pt Likert scale
Lower scores = fixed mindset
Higher scores = growth mindset

Fixed mindset linked to:
- Impeded professional growth
- Mental health symptoms
- Reduced psychological wellbeing

IMPOSTER PHENOMENON (IP)

Clance & Imes (1978):
Feeling like a fraud despite achievements; success attributed to luck rather than ability

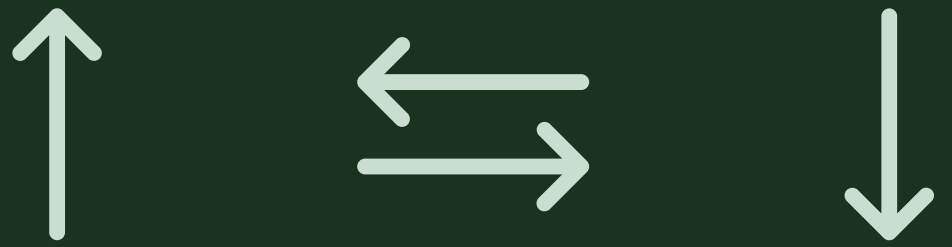
Measured by the CIPS
20-item, 5-pt Likert scale
Higher scores = more frequent and intense IP

IP linked to:
- Burnout and anxiety
- Emotional exhaustion
- Reduced motivation to lead

Up to 70% of pharmacy students and faculty report moderate to severe IP (Boyle 2022);
A negative correlation between lower ITIS and higher CIPS scores has been reported (Kenneally 2023)

As you've grown more experienced in your career —

Do you feel like your growth mindset has increased, stayed the same, or decreased?



Phi Lambda Sigma: Leader Academy

Phi Lambda Sigma (PLS): pharmacy leadership society with over 130 active chapters in the U.S. and Canada; recognizes and develops pharmacy leaders

Annual Leader Academy

Cohort-based, virtual
5-month program with meetings every 2 weeks

Offered at no cost to participants

GiANT 5 Voices Framework

Nurturer · Guardian · Connector
Creative · Pioneer

Participants identify their dominant voices and voice order

2024 - 2025 Program

3 pharmacy student cohorts
1 pharmacist cohort
Each led by a trained facilitator

Prior pilot work in Leader Academy participants linked Voice to IP and mindset scores (Cole, 2025):
Nurturers and Pioneers reported higher IP
Pioneers and Connectors more likely to have growth mindset; fixed mindset more prevalent in Nurturers

Purpose & Methods

Assess the impact of the PLS Leader Academy on growth mindset and imposter phenomenon

1 Survey Design

Validated CIPS + ITIS + demographic Qs via QualtricsXM

IRB exempt

2 Pre-Survey

September 2024
5 days before program start

3 Program

5-month Leader Academy
Sept 2024 - Feb 2025

4 Post-Survey

February 2025
After final program session

5 Analysis

Wilcoxon signed-rank + McNemar tests

Participants

45 participants completed the program; 42 responded to all pre/post survey questions (93.3% response rate)

Majority were pharmacy students, women, white/European American descent, age 18-29 years

Nurturer was the most common Voice

Demographic Category	Number (%)
Age	
• **18-29 years**	**31 (72.1%)**
• 30-49 years	11 (25.6%)
Gender Identity	
• Man	6 (14%)
• **Woman**	**36 (83.7%)**
• No response	1 (2.3%)
Race/Ethnicity	
• **White/European American**	**29 (67.4%)**
• Asian/Asian American	5 (11.6%)
• Black/African American	4 (9.3%)
• Multiple races/ethnicities	3 (7%)
• Latinx, Hispanic, and/or Spanish	1 (2.3%)
Professional Standing	
• **Student**	**33 (76.7%)**
• Pharmacist	9 (20.9%)
First Voice	
• **Nurturer**	**14 (32.6%)**
• Connector	10 (23.3%)
• Guardian	10 (23.3%)
• Creative	6 (14%)
• Pioneer	3 (7%)

Overall Results: No Significant Change

ITIS — Growth Mindset

p > 0.51

No significant change in median scores
(Wilcoxon signed-rank, p > 0.51)

No significant category shifts
(McNemar, p > 0.99)

CIPS — Imposter Phenomenon

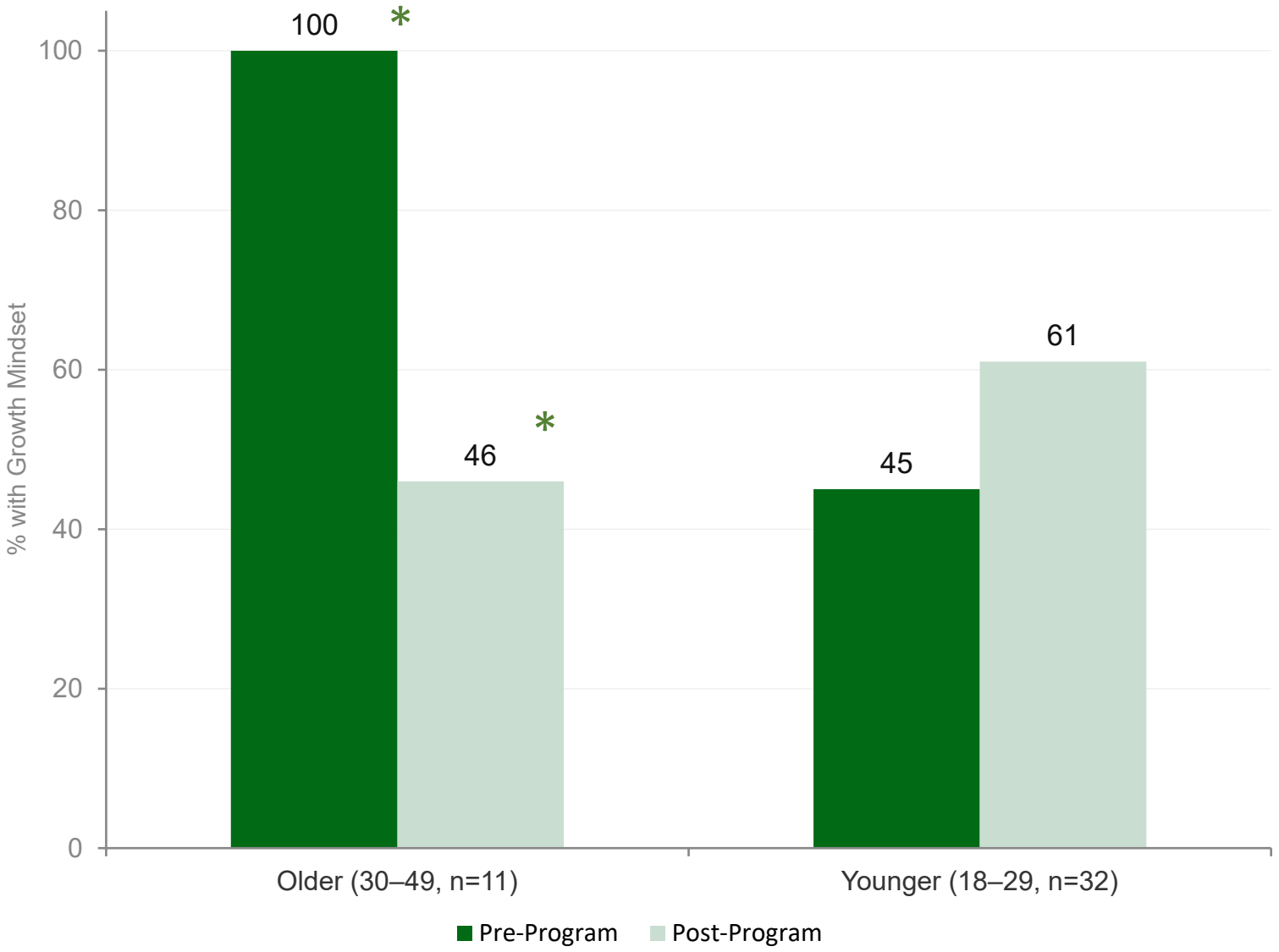
p > 0.51

No significant change in median scores
(Wilcoxon signed-rank, p > 0.51)

No significant category shifts
(McNemar, p > 0.99)

Small sample size limited ability to detect differences

Subgroup Analysis: Growth Mindset by Age Group



*** Statistically Significant**

p = 0.03 (McNemar)

Older: 7 of 11 were pharmacists
Younger: 2 of 31 were pharmacists

Imposter Phenomenon – Individual Impact

Severe IP Scores

Pre-program

4 participants

Post-program

2 participants

Most Notable Individual Change

Pre-program

CIPS 77 (High IP)

Post-program

CIPS 28 (Few IP)

Program had meaningful impact on IP for a few individuals

Limitations & Considerations

Limitations

- Program broadly focused on leadership development, not explicitly targeting IP or mindset
- Self-selection bias: highly motivated, voluntary participants
- Four different facilitators across cohorts – uncontrolled variable
- 5-month timeframe may not be long enough to capture true impact

Considerations for Future Programs/Research

- Intentional design: embed explicit mindset / IP content if that is the goal
- Consider one-on-one mentorship/coaching alongside group programming to impact IP (Para, 2024)
- Differentiated approaches based on age?
- Explore potential impact of program on self-awareness
- Continue data collection with future cohorts for larger sample size

Conclusions

- Cohort-based leadership training did not significantly change growth mindset or IP overall within a 5-month program
- Older participants showed a significant decline in growth mindset after the program
- Meaningful shifts in IP occurred for a few individuals
- Targeted, intentional program design may be needed to significantly shift growth mindset and IP
    - Cohort program may be a valuable foundation but may not be sufficient on its own

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Acknowledgments

Phi Lambda Sigma 2024-2025 Leader Academy Participants

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Monash University Pharmacy Education Symposium. July, 2026

Much Ado About Generations:
Examining the Use of Generational Stereotypes in Pharmacy Education Literature

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Zachary Noel, PharmD, PhD, FCCP, BCCP

Center for Innovative Pharmacy Education and Research (CIPhER)

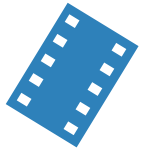
Eshelman School of Pharmacy

Learning Objective

Describe how generational differences are represented in pharmacy education literature and explain their influence on instructional decision-making.

Quick Pulse of the Room

Raise your hand if you:



Took photos without knowing how they'd turn out until the film was developed

Rewound a VHS tape before returning it

Used a folding paper map to navigate in the car

Grew up never knowing a world without Google

Methodology

How are generational differences represented in pharmacy education literature?

Reviewed pharmacy education literature published after 2010

Extracted data via a structured, codebook-driven workflow with LLM support and researcher validation

Analyzed how generational labels were used, and whether they reinforced or challenged stereotypes

The Good, The Bad, and the Ugly

Challenge generational stereotypes use, emphasize lack of evidence

Smith et al. (2019)
Boyle et al. (2018)
Pinelli et al. (2018)
Jeffres et al. (2014)

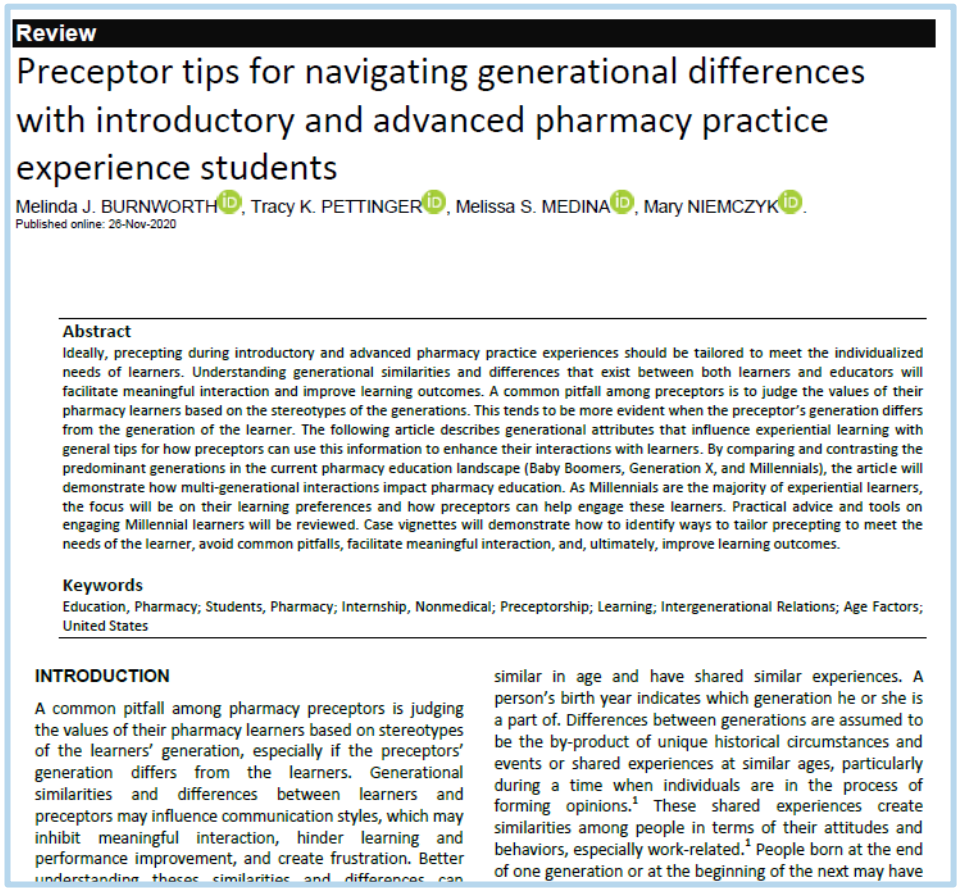
Caution about generational stereotypes, use **stereotype-reinforcing language**

Petrelli et al. (2023)
Chu et al. (2022)
Burnworth et al. (2020)

Reinforce generational stereotypes, call for changes in educational practices

Buckley et al. (2020)
Isaacs et al. (2020)
Ford (2020)
Medina et al. (2021)
Abraham and Alfredson (2024)

Overarching Narrative: Cautionary Framing with Stereotype-Reinforcing Descriptions



Review

Preceptor tips for navigating generational differences with introductory and advanced pharmacy practice experience students

Melinda J. BURNWORTH, Tracy K. PETTINGER, Melissa S. MEDINA, Mary NIEMCZYK.

Published online: 26-Nov-2020

Abstract

Ideally, precepting during introductory and advanced pharmacy practice experiences should be tailored to meet the individualized needs of learners. Understanding generational similarities and differences that exist between both learners and educators will facilitate meaningful interaction and improve learning outcomes. A common pitfall among preceptors is to judge the values of their pharmacy learners based on the stereotypes of the generations. This tends to be more evident when the preceptor's generation differs from the generation of the learner. The following article describes generational attributes that influence experiential learning with general tips for how preceptors can use this information to enhance their interactions with learners. By comparing and contrasting the predominant generations in the current pharmacy education landscape (Baby Boomers, Generation X, and Millennials), the article will demonstrate how multi-generational interactions impact pharmacy education. As Millennials are the majority of experiential learners, the focus will be on their learning preferences and how preceptors can help engage these learners. Practical advice and tools on engaging Millennial learners will be reviewed. Case vignettes will demonstrate how to identify ways to tailor precepting to meet the needs of the learner, avoid common pitfalls, facilitate meaningful interaction, and, ultimately, improve learning outcomes.

Keywords

Education, Pharmacy; Students, Pharmacy; Internship, Nonmedical; Preceptorship; Learning; Intergenerational Relations; Age Factors; United States

INTRODUCTION

A common pitfall among pharmacy preceptors is judging the values of their pharmacy learners based on stereotypes of the learners' generation, especially if the preceptors' generation differs from the learners. Generational similarities and differences between learners and preceptors may influence communication styles, which may inhibit meaningful interaction, hinder learning and performance improvement, and create frustration. Better understanding theses similarities and differences can

similar in age and have shared similar experiences. A person's birth year indicates which generation he or she is a part of. Differences between generations are assumed to be the by-product of unique historical circumstances and events or shared experiences at similar ages, particularly during a time when individuals are in the process of forming opinions.[1] These shared experiences create similarities among people in terms of their attitudes and behaviors, especially work-related.[1] People born at the end of one generation or at the beginning of the next may have

Burnworth et al. *Pharm Pract (Granada)*. 2020;18(4):2176. doi:10.18549/PharmPract.2020.4.2176

"A ***shift in the education mindset from relying on generational stereotypes*** to focus on differences in skills such as communication and technology will ***prevent generalizations and misconceptions***, ultimately, leading to enhanced learning. Preceptors can focus on the: learning strategies, micro-learning, and instructional alignment."

"The following suggestions, the ***Six R's of Engagement***, are offered to help pharmacy preceptors ***engage Millennial IPPE and APPE pharmacy students.***"

Overarching Narrative: Reinforces Stereotypes

Currents in Pharmacy Teaching and Learning 12 (2020) 1387–1389

Contents lists available at ScienceDirect

Currents in Pharmacy Teaching and Learning

journal homepage: www.elsevier.com/locate/cptl

Commentary

Move out of Z way Millennials

Alex N. Isaacs[a,*], Steven A. Scott[a,b], Sarah A. Nisly[b]

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ARTICLE INFO

Keywords:
Generation Z
Gen Z
iGen
Generational
Pharmacy education

ABSTRACT

Introduction: With the influx of Generation Z (Gen Z) students into pharmacy schools, there are new opportunities for pharmacy educators to develop its greatest asset. Assessing student characteristics is vital in creating pedagogical approaches in education.

Commentary: The incoming pharmacy students, Gen Z, are independent and desire active engagement with incorporation of technology in the classroom. These learners have a growth mindset and desire immediate, honest feedback. However, pharmacy educators must evaluate opportunities to facilitate student development related to communication and collaboration to prepare aspiring pharmacists for their future careers.

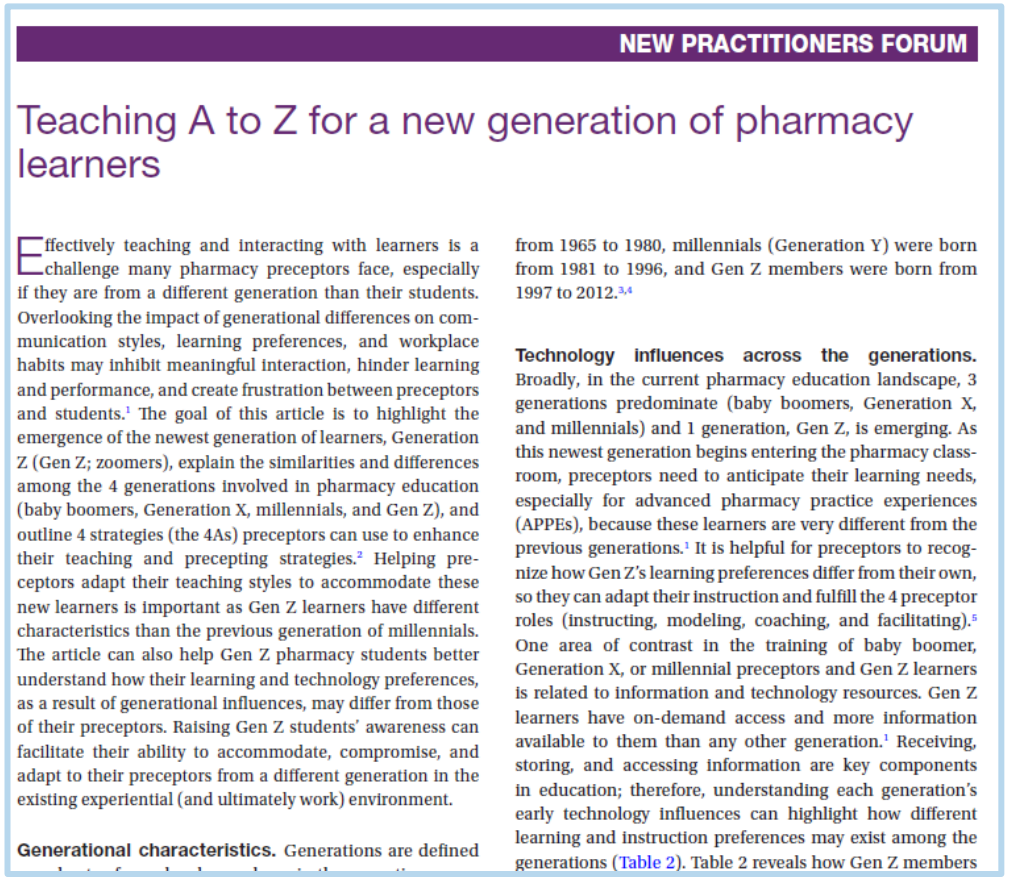
Implications: Pharmacy educators have the ability to harness technology, pedagogical approaches, and skill refinement for Gen Z students to provide the necessary resources and opportunities to facilitate their development into competent, confident, and impactful practitioners to positively influence the profession for years to come.

Isaacs et al. *Curr Pharm Teach Learn*. 2020;12(12):1387-1389. doi:10.1016/j.cptl.2020.07.002

"First, these students are pragmatic and appreciate development of career skills; this aligns well with rich learning opportunities for Gen Z students (…) However, Gen Z students are cautious and not as confident as Millennials. Therefore, ***preceptors may have to inspire students to take risks and boost confidence more than with previous student pharmacists*** to facilitate the necessary learning experiences to prepare them for future careers as independent practitioners."

"***With evolution of student preferences and characteristics, the academy must continue to evaluate pedagogical approaches*** to train future pharmacists."

Overarching Narrative: Reinforces Stereotypes



NEW PRACTITIONERS FORUM

Teaching A to Z for a new generation of pharmacy learners

Effectively teaching and interacting with learners is a challenge many pharmacy preceptors face, especially if they are from a different generation than their students. Overlooking the impact of generational differences on communication styles, learning preferences, and workplace habits may inhibit meaningful interaction, hinder learning and performance, and create frustration between preceptors and students.[1] The goal of this article is to highlight the emergence of the newest generation of learners, Generation Z (Gen Z; zoomers), explain the similarities and differences among the 4 generations involved in pharmacy education (baby boomers, Generation X, millennials, and Gen Z), and outline 4 strategies (the 4As) preceptors can use to enhance their teaching and precepting strategies.[2] Helping preceptors adapt their teaching styles to accommodate these new learners is important as Gen Z learners have different characteristics than the previous generation of millennials. The article can also help Gen Z pharmacy students better understand how their learning and technology preferences, as a result of generational influences, may differ from those of their preceptors. Raising Gen Z students' awareness can facilitate their ability to accommodate, compromise, and adapt to their preceptors from a different generation in the existing experiential (and ultimately work) environment.

Generational characteristics. Generations are defined

from 1965 to 1980, millennials (Generation Y) were born from 1981 to 1996, and Gen Z members were born from 1997 to 2012.[3,4]

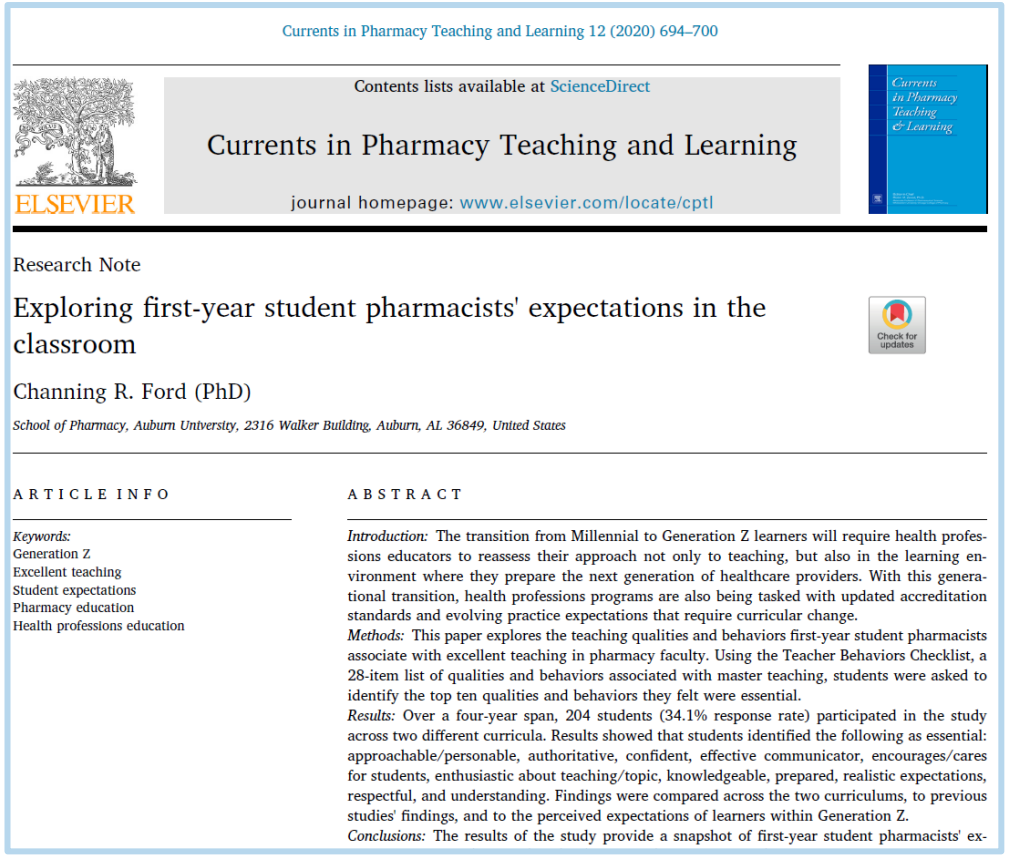
Technology influences across the generations. Broadly, in the current pharmacy education landscape, 3 generations predominate (baby boomers, Generation X, and millennials) and 1 generation, Gen Z, is emerging. As this newest generation begins entering the pharmacy classroom, preceptors need to anticipate their learning needs, especially for advanced pharmacy practice experiences (APPEs), because these learners are very different from the previous generations.[1] It is helpful for preceptors to recognize how Gen Z's learning preferences differ from their own, so they can adapt their instruction and fulfill the 4 preceptor roles (instructing, modeling, coaching, and facilitating).[5] One area of contrast in the training of baby boomer, Generation X, or millennial preceptors and Gen Z learners is related to information and technology resources. Gen Z learners have on-demand access and more information available to them than any other generation.[1] Receiving, storing, and accessing information are key components in education; therefore, understanding each generation's early technology influences can highlight how different learning and instruction preferences may exist among the generations (Table 2). Table 2 reveals how Gen Z members

Medina et al. *Am J Health Syst Pharm.* 2021;78(14):1273-1276. doi:10.1093/ajhp/zxab174

"Overall, it is important for preceptors to ***understand Gen Z's learning preferences so they can tailor their experiential learning*** environments accordingly."

"Helping preceptors ***adapt their teaching styles to accommodate these new learners is important as Gen Z learners have different characteristics*** than the previous generation of millennials."

Overarching Narrative: Reinforces Stereotypes



Currents in Pharmacy Teaching and Learning 12 (2020) 694–700

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journal homepage: www.elsevier.com/locate/cptl

Research Note

Exploring first-year student pharmacists' expectations in the classroom

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ARTICLE INFO

Keywords:
Generation Z
Excellent teaching
Student expectations
Pharmacy education
Health professions education

ABSTRACT

Introduction: The transition from Millennial to Generation Z learners will require health professions educators to reassess their approach not only to teaching, but also in the learning environment where they prepare the next generation of healthcare providers. With this generational transition, health professions programs are also being tasked with updated accreditation standards and evolving practice expectations that require curricular change.
Methods: This paper explores the teaching qualities and behaviors first-year student pharmacists associate with excellent teaching in pharmacy faculty. Using the Teacher Behaviors Checklist, a 28-item list of qualities and behaviors associated with master teaching, students were asked to identify the top ten qualities and behaviors they felt were essential.
Results: Over a four-year span, 204 students (34.1% response rate) participated in the study across two different curricula. Results showed that students identified the following as essential: approachable/personable, authoritative, confident, effective communicator, encourages/cares for students, enthusiastic about teaching/topic, knowledgeable, prepared, realistic expectations, respectful, and understanding. Findings were compared across the two curriculums, to previous studies' findings, and to the perceived expectations of learners within Generation Z.
Conclusions: The results of the study provide a snapshot of first-year student pharmacists' ex-

Ford et al. *Curr Pharm Teach Learn*. 2020;12(6):694-700. doi:10.1016/j.cptl.2020.01.033

"To continue to provide a positive and engaging learning environment, ***faculty must begin to explore the qualities and behaviors this new generation of learner expect in the classroom*** (...) Faculty should strategically examine and ***evaluate how these findings band these expectations*** should serve as only one of multiple mechanisms that inform changes to teaching and curricular development."

Key Takeaways

- **Generational labels are shaping teaching, but not accurately**

  Stereotypes shape instruction even when the evidence doesn't back them.

- **Birth year is not a teaching strategy**

  Prioritize evidence-based educational practices from the learning sciences.

Good teaching is good teaching, for every generation.

THANK YOU

QUESTIONS?

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