The Patient Safety Interprofessional Learning Module and its Impact on Student Learners' Experiences and Attitudes

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Regional Context

- National recognition of connection between collaboration and patient safety
- Provincial recommendation of the *Task Force on Adverse Health Events* [1] to implement IP curriculum on patient safety.
- In response, CCHPE coordinated curriculum development with faculty from involved health/social care programs

Memorial IPE Involvement

Corner Brook
Western Regional
School of Nursing

St. John's
Faculty of Medicine
School of Nursing
School of Pharmacy

Canadian Patient Safety Institute Competencies (2008)

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...Reduction and mitigation of unsafe acts within the healthcare system, as well as through the use of best practices shown to lead to optimal patient outcomes. [2]

CPSI Patient Safety Competency Domains: [3]

- 1: Contribute to a Culture of Patient Safety
- 2: Work in Teams for Patient Safety
- 3: Communicate Effectively for Patient Safety
- 4: Manage Safety Risks
- 5: Optimize Human and Environmental Factors
- 6: Recognize, Respond to & Disclose Adverse Events

Domain 2 Key Competencies

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Health care professionals are able to:

- **Participate** effectively & appropriately in an interprofessional team to optimize patient safety
- Meaningfully **engage** patients as central participants in their health care teams.
- Appropriately **share** authority, leadership, & decision-making
- **Work** effectively with other health professionals to manage interprofessional conflict

Patient Safety Module Learning Objectives

Upon completion of the *Patient Safety Interprofessional Education Module*, students will be able to:

- Describe key factors that foster & promote patient safety within the health care system.
- Recognize potential sources & prevention of occurrences in the health care system.
- Identify appropriate response(s) to an occurrence.
- Recognize the value of teamwork in fostering safe & high quality patient care.

Blended Learning Model

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E-Learning (1 week)

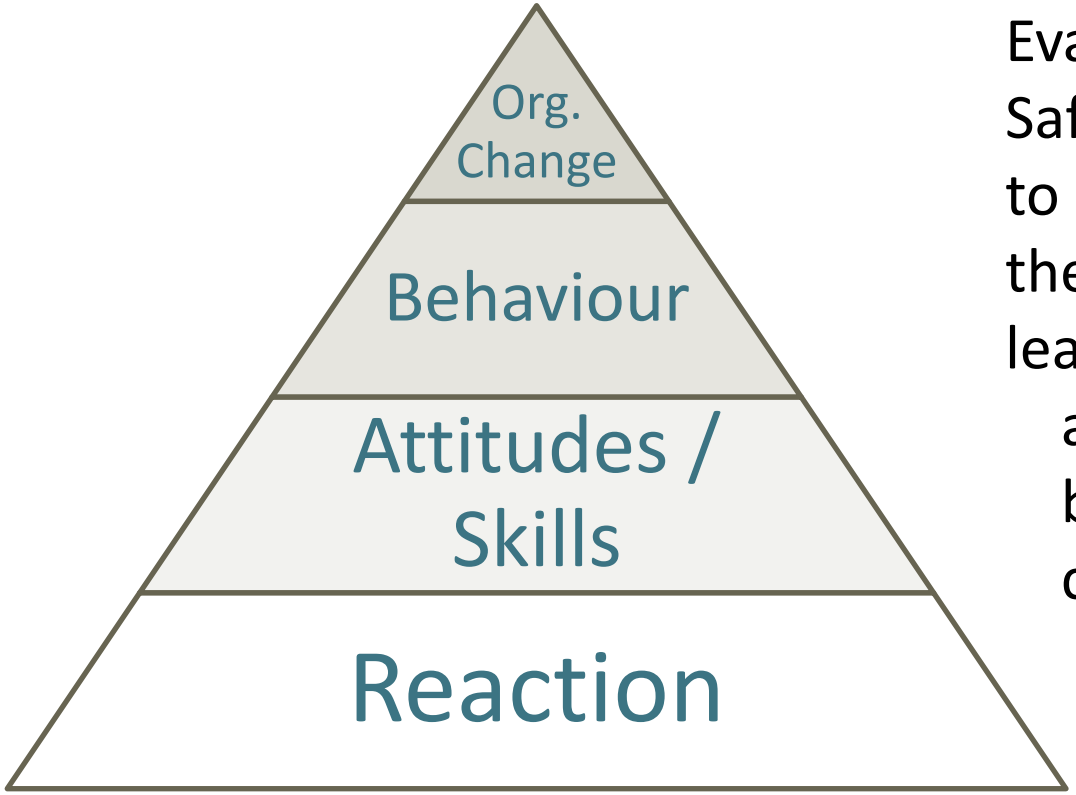
- Case study
- Discussion boards for group & case study interaction
- Self-learning tutorial

Face-to-Face Session (2.5 hrs)

IP Small Group Discussion *	Plenary Session
• Facilitated • Assigned case study questions	• Occurrence disclosure role play by standardized patients • Expert panel discussion

Students: Medicine (1st year), Nursing (2nd or 3rd year), Pharmacy (2nd year)

Theoretical Framework



Kirkpatrick's Learning Evaluation Hierarchy [4]

Evaluation of the Patient Safety Module attempted to capture the impact of the module on students' learning in terms of their

a) reaction,
b) attitudes, and
c) skills

Evaluation Framework

Module was evaluated using a mixed-methods before and after design with follow-up at either 6-months, 12-months, or both.

Year	Pre-Module	Post-Module (immediately)	Follow-up (6 months)	Follow-up (12 months)
2009/10	X	X	X	
2010/11	X	X	X	X
2011/12	X	X	X	X
2012/13	X	X		X
2013/14	X	X		

Evaluation Measures

Pre-Module

- Demographics
- Attitudes towards Occurrence Disclosure (AOD) scale [5]
- Additional Comments

Post-Module

- Demographics
- AOD Scale
- Learning Objectives / Curriculum Delivery
- Open-ended questions on impact of module

Follow-up

- Demographics
- AOD Scale
- Additional Comments

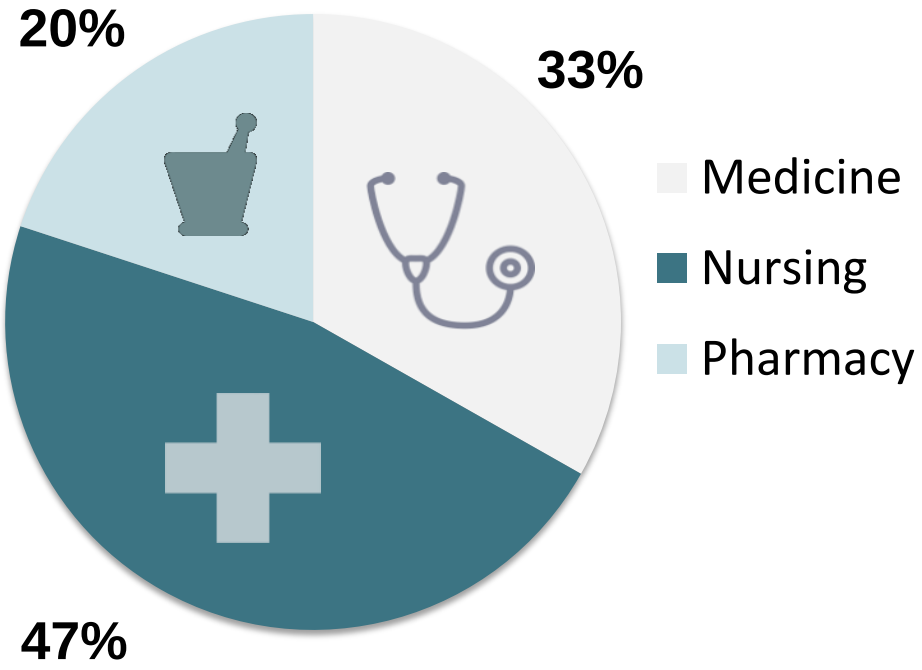
Module Attendance

1,006 students participated in the Patient Safety Module from 2009 to 2013

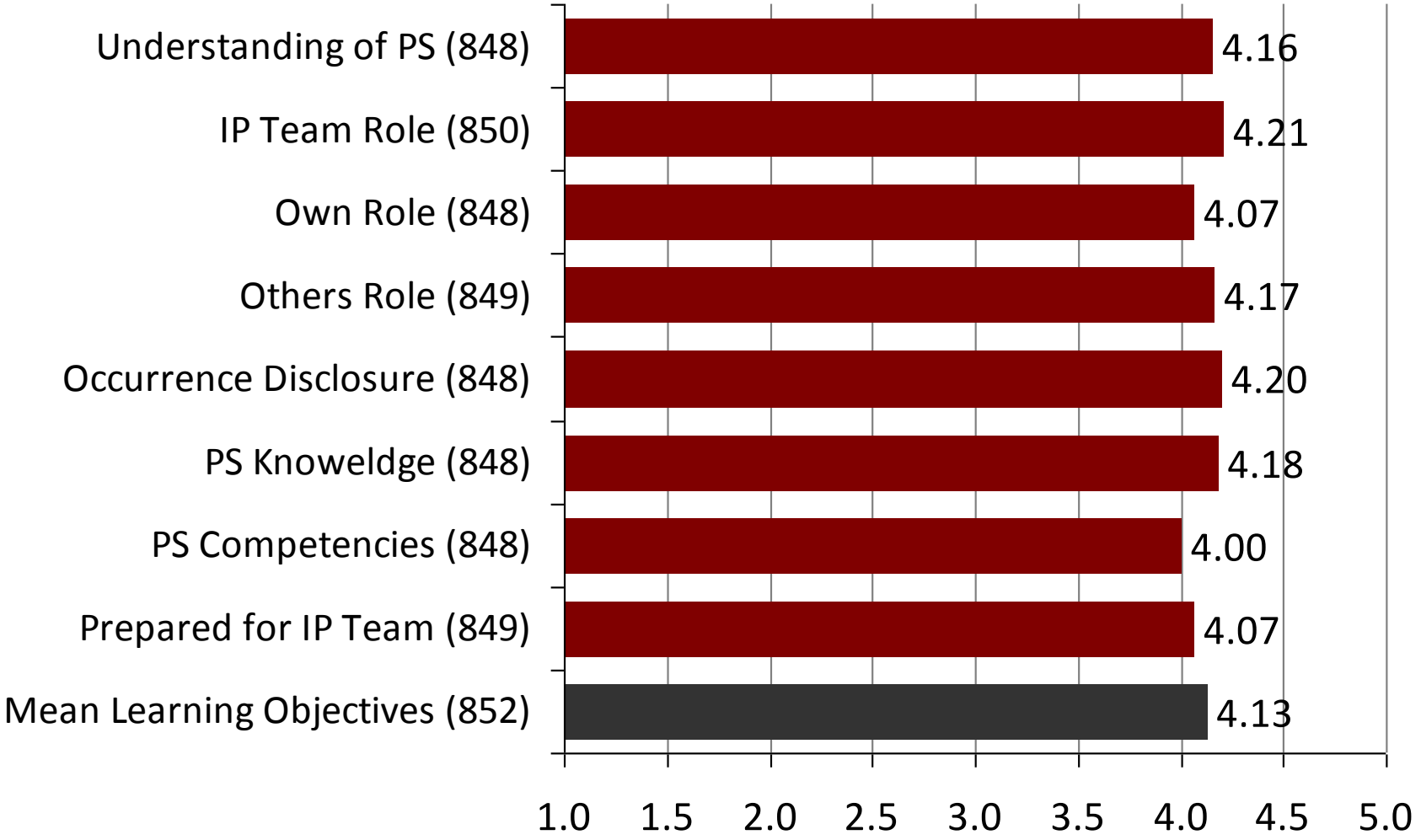
Demographic Profile

- Ranged from **184** to **216** students / year
- **74%** were women
- **75%** located on the main campus

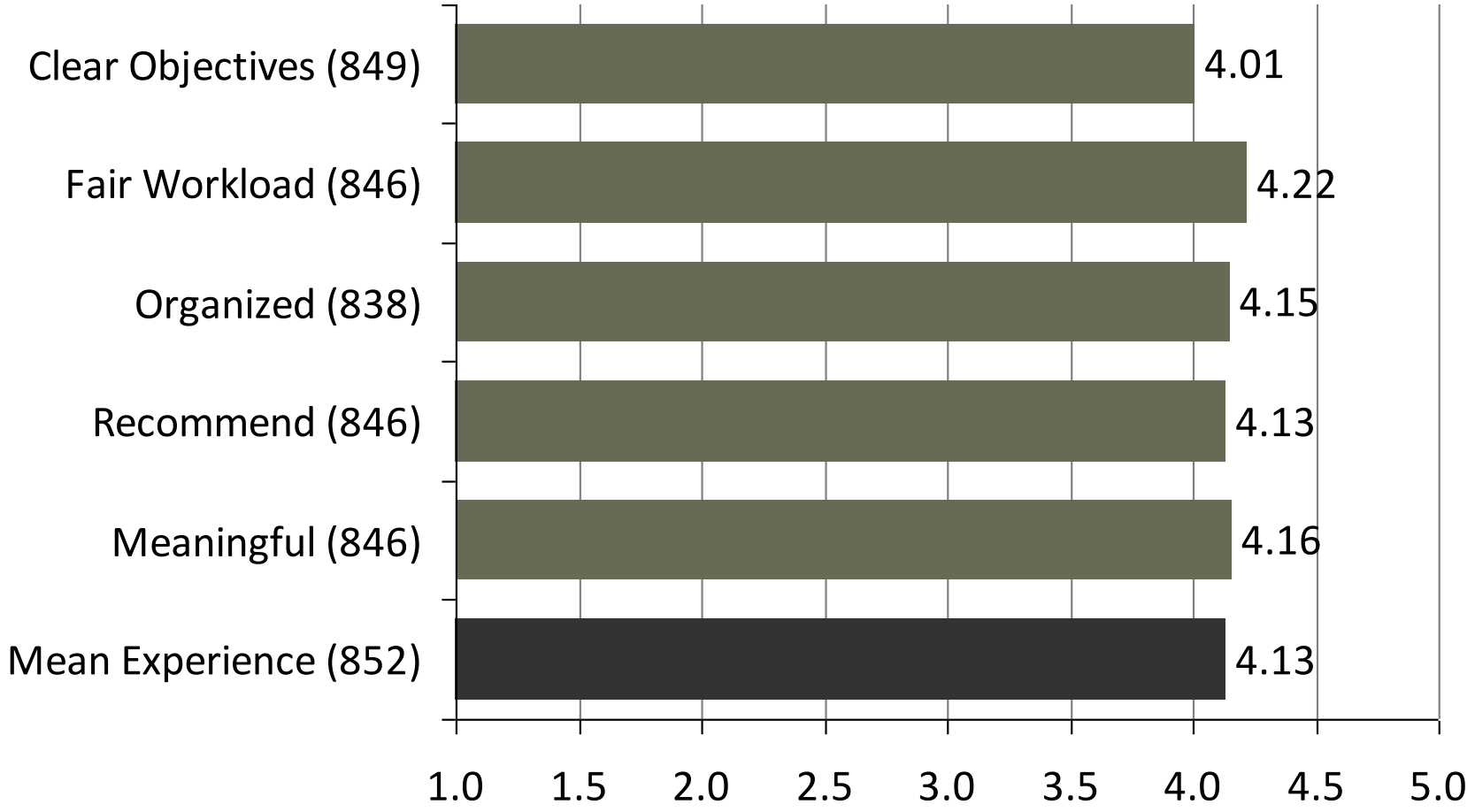
Students' Program of Study



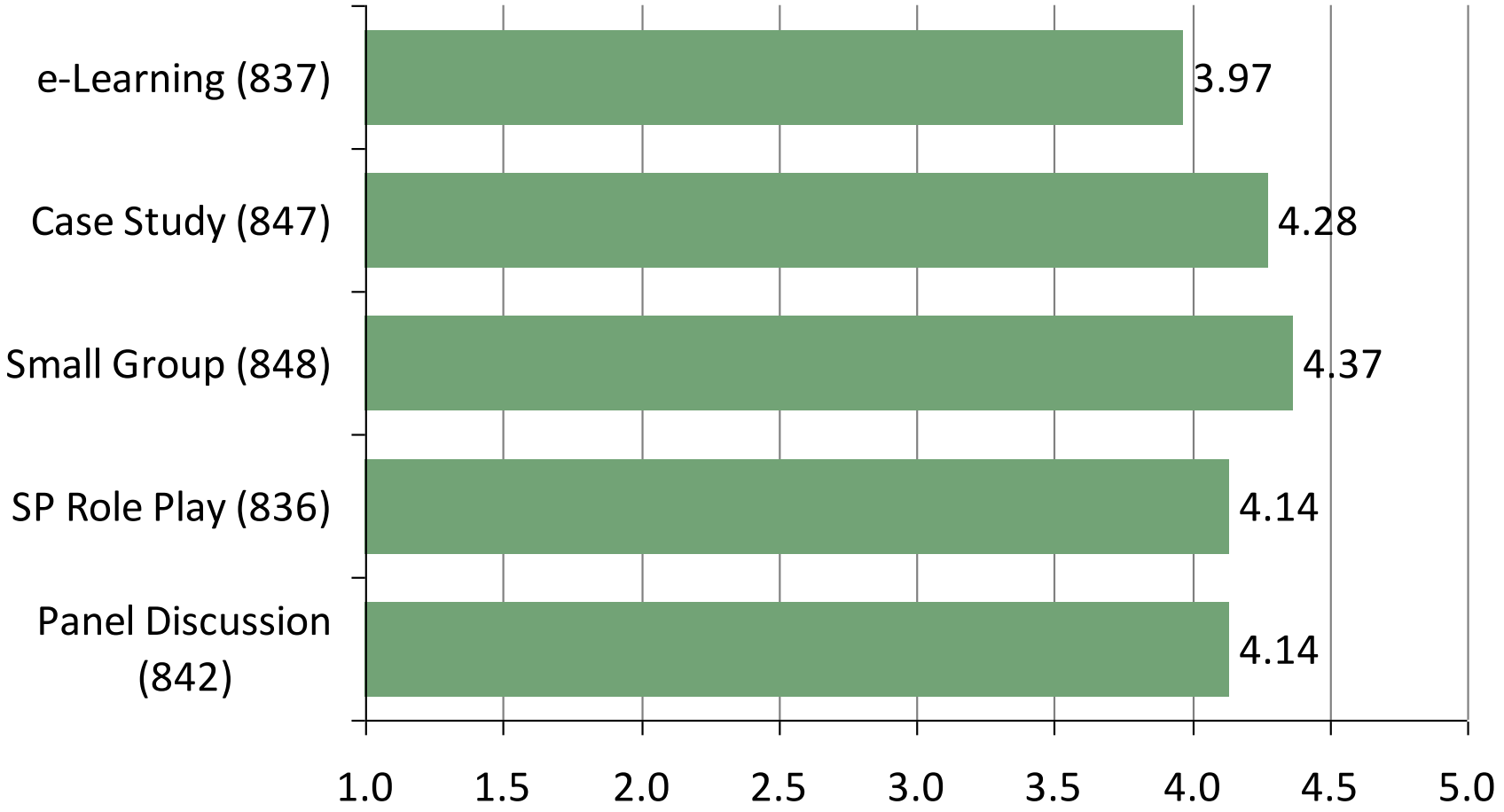
Reaction: *Learning Objectives*



Reaction: *Module Experience*

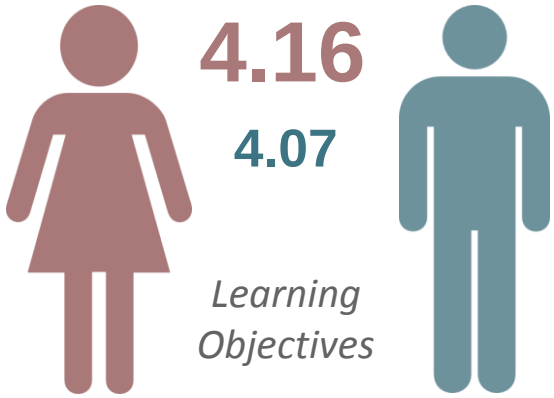


Reaction: *Curriculum Format*



Reaction: *Demographics*

Gender

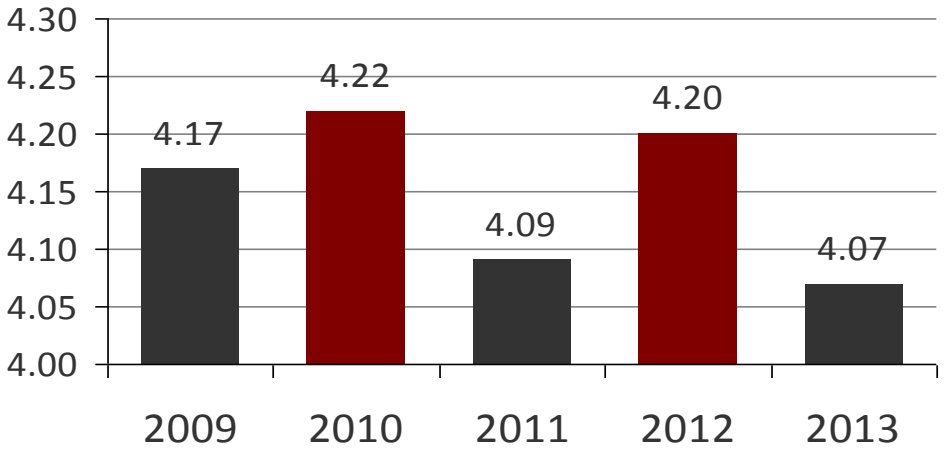


4.16

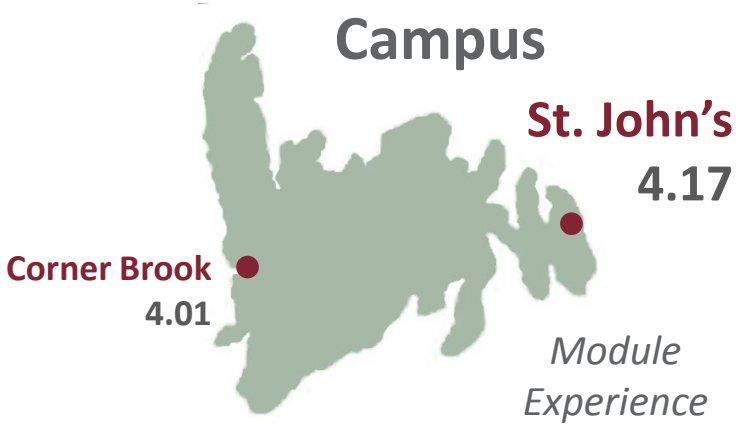
4.07

Learning Objectives

Module Year



Campus



Module Experience

Program

Module Experience

Pharmacy 4.28

Nursing 4.12

Medicine 4.14

Student Reaction

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Students *Liked...*

- Interaction with and exposure to other professionals
- Adverse event / Occurrence disclosure content
- Small group format and discussion

"I really enjoyed learning about some of the roles and safety measures undertaken by other health care professionals. The small group discussion was a great way to come together as a team and engage in a conversation about safety."

Student Reaction

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Students *Would Improve…*

- Technical difficulties and videoconferencing
- Increase small group discussion component
- Address experience discrepancies between professions

"Louder mics for actors, hard to hear in the back. Pair up students in the same years of their programs."

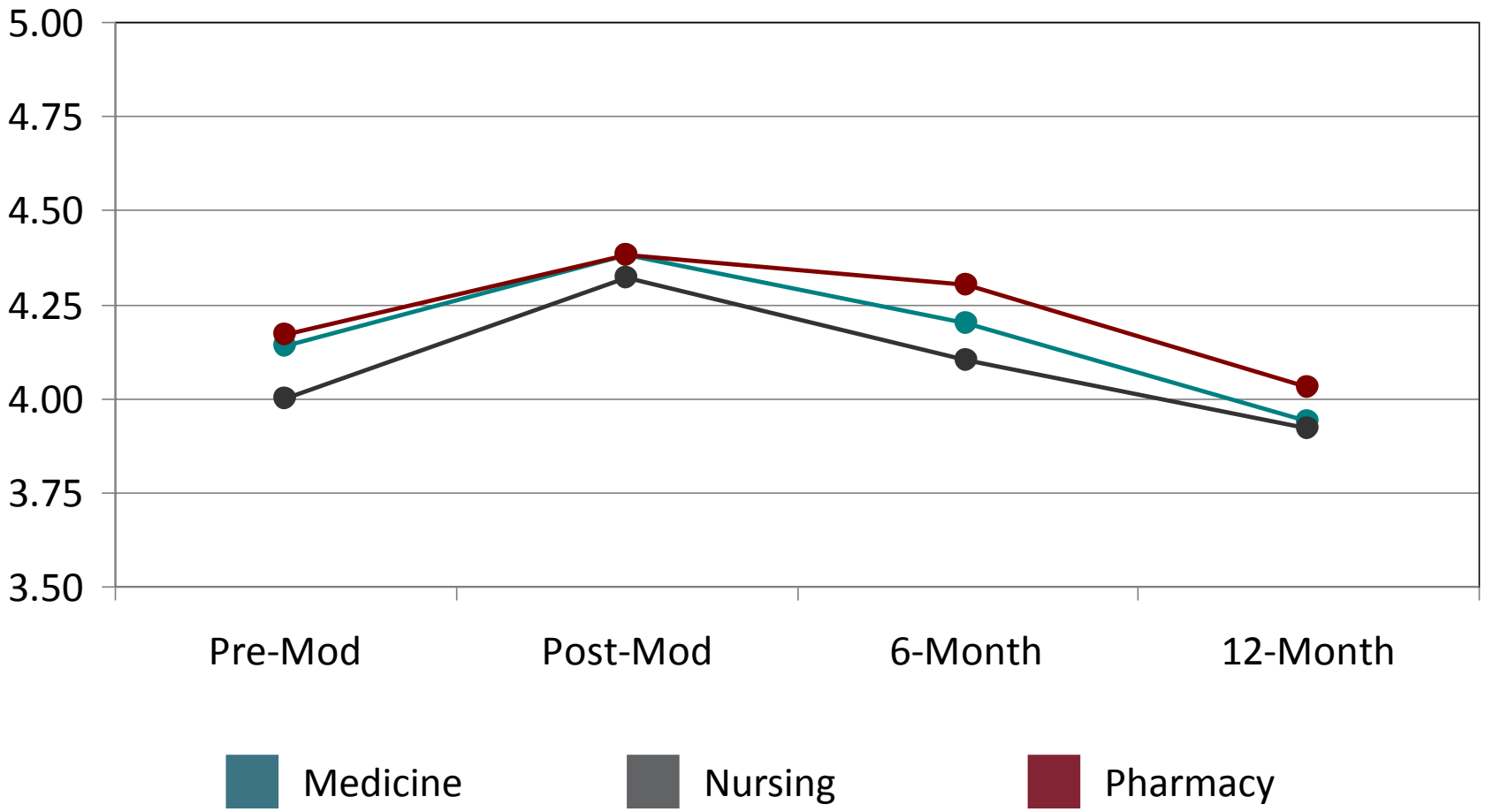
"More time for small group work, less for larger discussions."

Mean AOD Scores

In each cohort of students, Attitudes toward Occurrence Disclosure [5] mean scores increased significantly post-module, with evidence of a decay or decline at follow-up intervals.

Cohort	Pre	Post	6 months	12 months	P-value
2009	4.05	4.30	4.15		<0.001
2010	4.10	4.37	4.21	4.01	<0.001
2011	4.09	4.29	4.11	3.91	<0.001
2012	4.08	4.30		3.88	<0.001
2013	4.07	4.25			<0.001

AOD Scores by Program



Student Reaction

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Students *Learned…*

- Communication and collaboration improve patient outcomes
- Occurrences – systemic causes and disclosure process
- Patient safety is a shared responsibility

"I learned that it is very important for health care professionals to openly communicate and work together and all take responsibility for the safety of the patient and not place blame but take collective responsibility when adverse events occur in order to learn from and prevent them."

Key Messages

- Positive student reaction to Patient Safety Module varied based on demographics
- Strong mixed-methods evidence of learning objective achievement
- Evidence of a positive impact on knowledge, attitudes and skill levels
- AOD scores increased after module but decayed over the follow-up period

Implications for Future IPE

- Given observed patterns of decay, Patient safety learning objectives now embedded horizontally across two years of Interprofessional skills training sessions at Memorial
- Consistent student teams allow students to *experience* team functioning processes
- Teams actively address patient safety issues in case studies and team assignments

Curriculum Development Team

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Centre for Collaborative Health Professional Education

- Olga Heath (Lead)
- Adam Reid
- Brenda Kirby

School of Pharmacy

- Carla Dillon

Schools of Nursing

- Glenda Cunning
- Lynn Cooze
- Mary Bursey

Faculty of Medicine

- Maria Goodridge
- Tanis Adey

Funding: Canadian Patient Safety Institute

References

1. Task Force on Adverse Health Events. (2008). *Report of the Task Force on Adverse Health Events.* St. John's, NL: Government of Newfoundland and Labrador.
2. Davies, J., Hebert, P. & Hoffman, C. (2003). *Canadian Patient Safety Dictionary.* Royal College of Physicians and Surgeons of Canada. p. 56.
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