

# The Student's Perspective of Simulation and Clinical Placement

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# Who are we?

## Brendan O'Brien

- Cytotechnologist with Eastern Health in St. John's, NL
- Attended Dalhousie University School of Health Sciences - Bachelor of Health Sciences, Diagnostic Cytology
- Completed clinical placements with QEII Health Sciences Centre in Halifax, NS and University Health Network in Toronto, ON
- Certified MLT since 2015

## Judy Tran

- Third-year medical laboratory science student at The Michener Institute of Education at UHN in Toronto, ON
- Recently completed her clinical placement at Mount Sinai Hospital in Toronto, ON
- Wrote the CSMLS General MLT certification exam in February 2017

# What are the goals of a technical program?

- Prepare students for national certification exam
- Provide competency based theory and experience
  - Lectures, assignments, tests, problem-based learning, etc.
  - Practice and simulation
  - Clinical placements
- Ensure students make connections between theory and practice in clinical setting
- Ensure entry-level competence; ready to work in their respective fields
- Important to do so in a student-centered way




# What is a “student-centered” approach?

- Concept of student centeredness is relatively new
  - Seen in healthcare as patient-centered care
- Ensures students are the central focus in education delivery
- Incorporates student perspectives and voices
- Looks at ways to support students and new graduates
  - Student resource centres in universities/colleges
  - Mental health initiatives (e.g., CSMLS Mental Health Tool Kit)
  - Mentorship programs
  - Teleconference series and national forums
- Incorporates the work of several adult education theorists
  - When you engage the learner and give them autonomy, motivation and success increase (Lea, 2016)



# How do students feel about their clinical placement experiences?


- CSMLS Recent Graduate's Clinical Placement Experience and Graduate Panel
    - Majority of recent graduates report positive clinical experiences
    - However there are several experiences from which we can learn
  - Common themes in report:
    - Workplace burnout among staff
    - Lack of instruction from preceptors
    - Feeling of being “free labour”
    - Lack of soft skills (communication, professionalism)
    - Safety concerns from cutting corners
  - A large portion of students' education comes from clinical placements
  - Successful clinical relies mainly on:
    - Access to resources and experiences
    - Effective preceptors
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# Preceptors

- “The formal relationship between an experienced health care professional and learner. Designed to assist the learner in acquiring the knowledge, skills, and attitudes required for their health care role.” (Billay & Myrick, 2008)
- May also be referred to as clinical educators/coordinators
- Based on apprenticeship model
  - Well accepted; however, criticized for being exploitive for apprentices (free, cheap labour)
- Health professional schools moved to three partner model for clinical education
  - Student
  - Preceptor
  - School faculty



# Benefits of Preceptorship

- Enhance and shape clinical experience for student
    - Clinical placement is often the first exposure that students have to the clinical setting
  - Serve as the first “real life” exposure to a student’s future profession
    - Can shape students’ professional pride and help students define themselves professionally
  - Opportunity to experience social integration to lab
  - Increased competence, confidence, and professionalism for both preceptor and student
  - Familiarity with the clinical environment if/when student is hired
  - Increased motivation for preceptors to maintain and upgrade knowledge and skills
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# Challenges of Preceptorship

- Balancing clinical workload while focusing on students' learning and practice
- Need for training of preceptors
- Complex evaluation process
- Managing sources of friction in preceptor-student relationship due to differences in expectations and communication styles (Billay & Myrick, 2008)
- Unexpected challenges and barriers
  - Shortage of staff, scheduling problems





# How do we address these challenges?

- Preceptor education from health professional schools
  - Preceptors perform better in their role if they have received formal educational preparation
- Institutions can offer continuing education credits, certificates, and incentives
- Important to find preceptors that show interest and desire to guide students
- Burnout among preceptors is high! Employers must recognize the added workload and adjust accordingly
- Recognize, appreciate, and acknowledge their hard work - it's a tough job!
- Evaluation of preceptor with input from key stakeholders
  - Preceptors, students, programs, health care agencies, etc. (Burns & Northcutt, 2009)



# Examples of Strategies for Preceptors

- Orient students to the clinical laboratory environment
- Clearly communicate expectations and schedule with students
- The best clinical experiences are when *all* members of the laboratory are actively engaged and invested in the student's learning
  - Ensures a positive learning experience for the student even when preceptor is not present
  - Present interesting cases or tests to a student even when that student is not scheduled to be on that particular bench
- Encourage students to think critically about the subject matter
  - Present hypothetical or real situations to students and ask them what the next best course of action would be to take



# Examples of Strategies for Preceptors

- Ensure that learning is as hands-on and interactive as possible
- Enrich the student learning experience by providing students with opportunities that they would not normally be exposed to in the classroom
  - Provide opportunities to spend time in specialized disciplines (virology, mycology, special chemistry, etc.)
- Make time to discuss any material/questions students have
  - Ensures a student centered experience even if there is a heavy workload
  - Allows preceptors to cover material students should know even if students have not been exposed to this material throughout their clinical placement
- Compile relevant and current resources for students
  - Books, cases, or slides for students to review



# Examples of Strategies for Preceptors

- Address workload so that adequate time is spent with students
  - Can be difficult based on staffing availability
  - Identify a minimum baseline requirement of time spent with students if one does not exist
- Schedule time for students to read Standard Operating Procedures (SOPs)
  - Can allow preceptors to focus on workload
- Be open to and seek feedback
- Encourage students to take advantage of learning opportunities
  - Lunch and learns, conferences, teleconferences, etc.
  - Serve as good role models and demonstrate a positive attitude towards learning




# Examples of Strategies for Preceptors

- Consider preceptor education certification
- Engage with education programs to ensure they are providing experience on key competencies
- Acknowledge and accept limitations in your knowledge and skills
  - Ensure that effective communication is the foundation of students' clinical experiences
  - Being willing to have discussions about these limitations can be positive teaching moments for both students and preceptors



# Brendan's Experience

- I was lucky!
    - Access to several clinical placement sites
    - Noticed less burnout
    - Preceptors who were engaged and interested in having students in their lab
    - Resources were not as limited in my learning compared to others students
  - Other students
    - Liaising with students and faculty
    - Brought concerns from students to educators, clinical coordinators, etc.
    - Sentiment of “being thrown to the wolves”
    - Some students noted lack of resources for education, unprofessionalism in the workplace
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# Gaps in Clinical Education


- Hearing from students in my own program, across Canada at the CSMLS panel (April 2016), and in the recent graduate report, it is clear that there are gaps in education
  - Employee burnout
  - Safety concerns
  - Lack of instruction
  - Lack of experiential resources, etc.
- Creative ways to address these gaps and challenges
  - Simulation!



# What is simulation?

Based on group discussions at the CSMLS Simulation and Clinical Placement National Forum (April 2016), the following definition was derived:

“Simulation is an **educational technique** used to imitate real life scenarios (in part or whole), which enables participants to **demonstrate** and **receive feedback** on **knowledge, skills, abilities and/or judgement**. This can include but is not limited to communication, problem solving, critical thinking and the ability to collaborate and work effectively within a health care team.





# What is simulation?


Simulation can reflect simple to complex situations or processes and can be accomplished in any of the following examples:

- through interactive written case-based scenarios,
- computerized laboratory information system gaming,
- inter- or intra-professional role playing,
- standardized patients,
- task trainers such as rubber arms for phlebotomy,
- virtual simulation for specimen identification,
- haptic simulation,
- high fidelity simulation, or
- hybrids of any of these examples.



# What is simulation?

Similar to healthcare simulation, academic student simulation encompasses a range of activities with a broad common purpose of **improving the effectiveness and efficiency of services** and ultimately, **enhancing competency acquisition** by students in a **safe and secure environment** that **reduces potential harm** to patients, students, and the laboratory and general healthcare systems.”



# Why is simulation important?

- An opportunity to practice a skill or perform a task in a safe, risk-free environment
  - Less risk to both the patient and the student
- Academic programs with a simulation component help prepare students for their clinical placements
  - Develop student confidence in their technical skills and abilities to handle difficult situations
- Enhances student education and the clinical placement experience
- A potential answer to the limited clinical placements available for students
  - Can potentially reduce the time spent in clinical placement



# Limitations of Simulation Education

- High cost of start up and funding to keep up pace with the advances in technology
- Cannot completely replace clinical placement experience
- Can be difficult for students to treat seriously
- Can be difficult to integrate into traditional education programs (McLaughlin et al., 2006)

*These limitations are not always evident to students.*




# Simulation Education at The Michener Institute


- In 2006, The Michener Institute reduced 36 weeks of clinical placement to 20 weeks, with a summer simulation semester immediately prior to students attending clinical placement
- Summer simulation contains:
  - 2-week rotations in each of the five general disciplines (histotechnology, clinical chemistry, hematology, microbiology, transfusion science); and
  - 1-week each of *Working with Seniors* and *Quality Improvement*
- There are no lectures, new material, or graded evaluations during simulation; assessment is based on competencies



# Myths about Simulation Education

- **Myth: Simulation is always expensive.**
    - Can reorganize benches to reflect a realistic model of a clinical laboratory
    - Can create daily/weekly/monthly laboratory maintenance logs
      - Shift in thinking from the classroom to a clinical environment
    - Can involve students in the process (e.g., by creating ideas, writing case studies, etc.)
  - **Myth: Simulation is always time-consuming and complicated.**
    - Can be as simple as providing students with a worklist or asking them to continue the work of a peer from a previous shift/day
    - Give students the opportunity to practice telephoning critical values or rejected specimens to health care providers → interprofessional communication
      - Prepares students to face difficult or unexpected situations in a clinical environment
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# Strategies for Effective Simulation Education

- Create and maintain relationships and partnerships with relevant stakeholders
    - Creates learning opportunities for students
    - Help to obtain true patient samples for simulation
  - Focus on shifting student thinking from the classroom/laboratory to the clinical environment
    - Emphasize topics such as work flow, patient care, and privacy
  - Ensure simulation is adaptable and scalable
  - Allow students to make mistakes in a safe, risk-free environment
    - Anticipate and account for potential losses (e.g., instrument repair)
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# Strategies for Effective Simulation Education

- Create opportunities for students to draw from their cumulative knowledge and experiences
  - Mimic a clinical environment where a variety of different sample types are received
  - Force students to think critically and draw from cumulative knowledge in a discipline rather than focus on a specific topic
  - Encourage students to apply their knowledge and thinking across multiple disciplines
- De-brief and provide feedback
  - Give students an opportunity to reflect and learn from each other's experiences





Thank you for listening!

Questions?



# References

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