Implementation of a Stage-Specific Resident Bootcamp: How to Hit the Ground Running

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Conflicts of interest

None to declare
Outline

• Background
• Methods
• Lessons Learnt
• Conclusion/Next steps
What are Bootcamps?

“Focused courses designed to enhance learning, orientation, and preparation for learners entering a new clinical role.”

Blackmore, 2014
Why a Bootcamp in our Pediatrics Program?

Goal: Optimally prepare residents to new roles and responsibilities at key transition periods of training.

- Ward Senior
- Nightfloat Senior
- Incoming Junior Resident
METHODS
Framework: Kern’s 6 Steps for Curriculum Development

1. Problem identification and general needs assessment
2. Needs assessment for targeted learners
3. Goals and objectives
4. Educational strategy
5. Implementation
6. Assessment or evaluation
### General Needs Assessment

**Curriculum**

- Most often:
  - Surgical / Procedural
  - Target entry level
  - Not stage-specific

<table>
<thead>
<tr>
<th>Curriculum</th>
<th>Outcomes</th>
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<tr>
<td>Surgical / Procedural</td>
<td>Focus on simulation-based sessions</td>
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<tr>
<td>Target entry level</td>
<td>Studies looked at improvement in:</td>
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<td>Not stage-specific</td>
<td>- clinical skills</td>
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<tr>
<td></td>
<td>- knowledge acquisition</td>
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<td>- perceived confidence</td>
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*Blackmore (2014)*
Targeted Needs Assessment

- Key transition periods
- “Must know” topics
- Knowledge gap
- Sources of “transition stress”
- “Wish list”
Goal: Optimally prepare residents to new roles and responsibilities at key transition periods of training.

Identification of key transition periods

Clinical activities

Session-specific Objectives

Curricular Alignment
### Educational strategies: Final curriculum content

#### PGY-1 Bootcamp  
"Incoming junior resident"
- Handover, Patient Safety
- V-Sign
- Documentation
- Communication
- CXR, ECG
- Newborn Exam
- PALS-like Cases
- Technical Skills (LP, airway, wounds, lines)

#### PGY-2 Bootcamp  
"Nightfloat senior"
- Overview Nightfloat Senior
- Morning Handover
- Hematology-Oncology
- Difficult Psychosocial Situations
- PICU cases
- End of Life Care
- Patients with Medical Complexities
- Challenging Conversations

#### PGY-3 Bootcamp  
"Ward senior"
- Overview Ward Senior
- Multi-Disciplinary Meetings
- Bedside Rounds
- Discharges
- End of Life Care
- Patients with Medical Complexities
- Challenging Conversations
Educational Strategies: Novel Aspects

1. Incorporation of **Mastery Learning** principles

   Clear standards (checklists)

   Deliberate Practice

   Assessment Component

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**Introduction**

**Background**

**Methods**

**Discussion**

**Conclusion**

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Educational Strategies: Novel Aspects

2. Residents as Coaches
Educational Strategies: Novel Aspects

3. Multi-Disciplinary Teaching
Implementation

Impact on Clinical Service

Logistical Support

Teaching Manpower
Introduction

Background

Methods

Discussion

Conclusion

Program Evaluation

Immediately post-Bootcamp

- Self-administered survey
- Bootcamp Committee debrief

6 months post-Bootcamp

- Self-administered survey
- Informal focus Groups
- Bootcamp Committee debrief

- Problem identification and general needs assessment
- Needs assessment for targeted learners
- Goals and objectives
- Educational strategy
- Assessment or evaluation
Program Evaluation: Conclusions

Overall well received by residents

- **Most** sessions rated >6.0 out of 7
- Residents reported feeling better **prepared** and **improved** self-efficacy before vs. after

![Bar chart showing improvements in Knowledge, Confidence, and Preparedness](chart.png)
Program Evaluation: Conclusions

**STRENGTHS**
- General satisfaction
- Increase in self-efficacy

**AREAS TO IMPROVE**
- Content recommendations
- Resources

**Lessons learnt**
- More Deliberate Practice
- More Residents as Teachers

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Introduction  |  Background  |  Methods  |  Discussion  |  Conclusion

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Team-Building: Enhancing the Learning Environment

Introduction

Background

Methods

Discussion

Conclusion
Conclusions

• A stage-specific bootcamp is a highly **relevant** and **educationally-congruent** strategy that can facilitate transitions to new clinical responsibilities.

• Our experience could help postgraduate programs enhance their curricular alignment with CBD and CBME.
Future Steps: Bootcamp 2019-2020

**Teachers**
- Formalized presence of residents as teachers
- Enhance Multi-Disciplinary aspect

**Teaching Strategies**
- Increase opportunities for Deliberate Practice
- Enhance integration of Mastery Learning principles
- Target sessions towards Royal College EPAs

**Assessment**
- Formalize the assessment of performance in clinical practice
A Special Thank You to:

- All those who contributed to the brainstorming, content creation, session development and delivery of the Bootcamp
- All the trainees who attended the Bootcamp
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- Department of Pediatrics – Dr. Michael Shevell
- Division of General Pediatrics – Dr. Geoffrey Dougherty
- The Bootcamp Committee – Dr. Elisa Ruano, Kimberley Kaspy, Amna Al Khuzaei
QUESTIONS?

THANK YOU FOR LISTENING!
Key References


Additional Slides
• Consultation with local experts
  – Medical Education
  – Patient Safety
  – Simulation
  – Quality Improvement

Content:
* Communication
* Systems-based practice
* High-Yield Clinical Skills
* Procedural/Technical Skills
* Physical Exam Skills
Key Transition Periods

- **PGY-1**
  - Incoming junior resident

- **PGY-2**
  - Nightfloat senior- inpatient ward

- **PGY-3**
  - Senior in-patient wards
6. Program Evaluation: Surveys

1. Components
   - Learning environment
   - Objectives
   - Content
   - Organization
   - Instructors (preparation, communication, etc.)
   - Overall session
   - Baseline knowledge prior / after
   - Sense of preparation prior / after
   - Confidence prior / after

2. Suggestions & Comments

   5-point Likert scale

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