

# Children's Cancer Center as a Clinical Microsystem: Engagement

Courtney Herr  
Courtney.Herr@lvhn.org

Toni A. Hahn  
Toni.Hahn@lvhn.org

Josephine Steidinger  
Josephine.Steidinger@lvhn.org

J. Nathan Hagstrom MD, MHCM  
Lehigh Valley Health Network, j\_nathan.hagstrom@lvhn.org

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## Published In/Presented At

Herr, C. Hahn, T. Steidinger, J. Hagstrom, J.N. (2019, August). *Children's Cancer Center as a Clinical Microsystem: Engagement*. Poster Presented at: LVHN Research Scholar Program Poster Session, Lehigh Valley Health Network, Allentown, PA.

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# Children's Cancer Center as a Clinical Microsystem: Engagement

Courtney Herr, Toni Hahn, Josephine Steidinger, J. Nathan Hagstrom, MD, MHCM

Department of Pediatrics

Lehigh Valley Health Network, Allentown, Pennsylvania

## Introduction

- A clinical microsystem is the smallest functional unit within the healthcare system and is composed of the patient, a provider, and information.<sup>1</sup>
- The Children's Cancer Center (CCC) outpatient clinic functions as a microsystem within the LVRCH mesosystem and LVHN macrosystem.
- The main purpose of this project was to assess and identify areas for quality improvement in work engagement within the Children's Cancer Center staff.
- Colleague, or work, engagement requires an employee's vigor, dedication and absorption.<sup>2</sup>
- Prioritizing engagement can decrease employee turnover and burnout while increasing well-being, performance, productivity, and patient satisfaction.<sup>3</sup>
- Assessment tools:
  - Staff interviews, including twelve questions about identifying the CCC's purpose, staff morale, effectiveness of communication, etc.
  - Clinical Microsystem Assessment Tool and engagement surveys
  - Daily morning huddle surveys



## Materials and Methods

- The themes found from initial assessment were streamlining communication, increasing morning huddle efficiency, providing continuing education tools, and fostering a supportive atmosphere.
- Countermeasures:
  - Restructure of morning huddle
  - Provided continuing education materials, or "mini projects"
  - Marbles corresponding to the staff's daily stress levels
  - Patient and peer-to-peer encouragement notes

Figure 1: implemented daily huddle checklist.

Figure 2: Colleague Engagement Survey.

## Results

Children's Cancer Center Engagement Survey Results



Figure 3: Initial engagement survey results, divided into themes.

Marbles Countermeasure Results

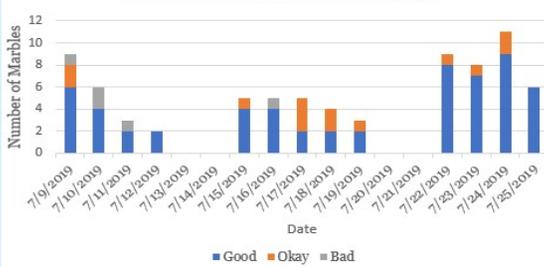


Figure 4: Number of good, okay, and bad marbles found daily.

Statement	Before Countermeasures Average Score	After Countermeasures Average Score
Conflicts are resolved fairly in my unit/department.	3.42	4.00
My organization helps me deal with stress and burnout.	4.54	3.50
We discuss our unique skills with each other, so we know who has relevant specialized skills and knowledge.	3.72	3.75
I am treated with respect every day by everyone in my unit/area.	4.09	4.00
I receive the necessary support from my colleagues in my unit/department to help me succeed in my work.	4.18	4.13

Figure 5: Final engagement survey results, before and after countermeasures.

Statement	Average Score
The new approach to huddle has increased its value.	4.25
The new approach to huddle is helping us be better prepared for the day.	4.38
The marbles help to communicate how stressful the day was.	3.68
The mini projects will help us work together to better understand the work we do and to find ways to standardize it.	4.13
The Cheers for Peers board will allow us to recognize the great work we all do.	4.13
The patient comments being posted will allow us to appreciate the great work we do.	4.38

Figure 6: Final engagement survey results, regarding countermeasure effectiveness.

## Discussion

- Initial assessment:
  - The high level of engagement seen in the CCC could be due to working within a rewarding clinical microsystem with high patient satisfaction and appreciation.
  - The CCC engagement assessment showed opportunities for improvement through better support, including trauma, stewardship, staff training, more organized quality improvement, which includes the involvement of all staff.
- Countermeasures:
  - New huddle structure showed need for improvement in ensuring only pertinent information is reviewed.
  - Marbles as stress indicators showed less stressful shifts over time.
- Final assessment:
  - Repeated staff engagement survey with additional questions showed mixed results, which is likely due to lack of time from shifting culture.
  - Additional survey questions regarding countermeasures were very positive and suggest they will have a positive impact.
  - Responses showed more value in huddle after implementing the new structure.
- Limitations:
  - Some results in quality improvement can only be expressed qualitatively.
  - Results are dependent on multiple variables: patient volume, outcomes, external circumstances, etc.

## Conclusions

- The Children's Cancer Center showed that it is a highly reliable clinical microsystem with overall good engagement.
- Implemented countermeasures have shown some improvements to fostering positivity, productivity, and continuing education.
- Future Directions:
  - Continue with current countermeasures in place and repeat staff interviews.
  - Administer support for staff in the event of negative patient outcomes.
  - Provide more structured training for new hires; add language training to continuing education materials.
  - Design a huddle board with daily staff engagement metrics.

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