Assessment of Clinical Learning Environment on a General Inpatient Pediatric Team

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BACKGROUND

On general inpatient pediatric teams, there are often a variety of learners, and the number of learners can vary greatly across different hospitals. Little is known about the number and composition of learners that best facilitates resident education. However, studies which assess team structure and size with regards to problem solving, often demonstrate negative correlations between team size and efficiency.

As pediatric hospital medicine (PHM) fellowships have continued to develop, fellows are also playing a larger role in resident education. Multiple studies have demonstrated negative surgical residents’ perceptions towards fellows. Studies also demonstrated discrepancies between faculty and resident perception of surgical fellows. Little is known about non-surgical fellowships’ impact on residency training.

Key Aspects of Residency Training

Patient Care, Education, Autonomy, Supervision

Balancing Team Size

Larger Team, Smaller Team

Team structure plays a large role in implementing these components of resident training.

We hypothesize that there are more benefits to having a smaller rather than larger team.

OBJECTIVES

• To identify the optimal number and composition of learners on PHM teams
• To assess resident and faculty perceptions of the impact of a PHM fellow on resident learning

METHODS

Creation

We designed resident and faculty targeted surveys assessing several factors that contribute to clinical learning environment on PHM, including current team size/composition, resident satisfaction, presence and impact of a PHM fellow, as well as perceived optimal team size/composition.

Distribution

These surveys were distributed through resident and PHM faculty email lists, and were both optional and anonymous. A total of 53 residents and 79 PHM faculty completed the online survey between September and October 2018.

Analysis

Linear regression was used to compare average satisfaction score with team size. A paired t-test was used to determine if there was a difference between resident and faculty perceptions regarding fellows, as well as whether there was a difference between current and optimal team sizes in PHM.

RESULTS

Graph 1: Study participants predominantly identified as female.

Graph 2: Study participants represented a varied distribution of level of training (residents) and years out of residency (attending).  

Graph 3: There was a significant difference between resident and attending perspective on fellows’ impact.  

Graph 4: There was a significant difference between resident and attending desire to work with a fellow again.

Graph 5: For residents as well as attendings, there was a significant difference in scores for current team size (M_{current}=7.0, M_{optimal}=6.3) and optimal team size (M_{current}=5.2, M_{optimal}=4.8).  

Graph 6: Residents’ average satisfaction associated with the reported team size.

CONCLUSIONS

PERCEPTION OF FELLOWS

Residents perceive PHM fellows impact on learning as less positive than faculty (Graph 3), and are less likely to want to work with a fellow again (Graph 4).

FUTURE DIRECTIONS

• Limited by sample size and reporting bias in an optional survey
• Cannot predict effect of intentionally decreasing team size, and barriers to implementation exist
• National distribution to other comparable institutions to compare and contrast resident experiences and perspectives with TCH
• Qualitative data collection to identify factors driving these trends

REFERENCES

• Odor-Dodds S, Gospic K, Moser S. Exploring the Impact of Group Size on Medical Students’ Perceptions of Learning and Professional Development During Clinical Rotations. Kansas J Medicine, 2016;11(3):70-75.