



Utilization of a *Healthcare Matrix* Using Aims for Improvement & Core Competencies To Augment Resident Case Presentations & Assessment of Patient Care

Ayesha Mirza M.D.

Department of Pediatrics, University of Florida College of Medicine, Jacksonville, FL

ABSTRACT

Background: In 1999, the ACGME adopted six core competencies that physicians-in-training must master if they are to provide quality care. They include patient care, medical knowledge, interpersonal and communication skills, professionalism, system based practice and practice based learning and improvement. There is little research on how many residents and fellows-in-training are actually aware of the required competencies and how they integrate in to their training.

Objectives: Use a health care matrix to combine ACGME and IOM goals to help residents evaluate cases they were involved in, with the intention of integrating competency based learning with routine patient care and decision making. The idea was to assess knowledge (residents) as well as usefulness of tool (healthcare matrix) used to prepare cases. Secondary objective was to assess utility of the tool for use in all future case conferences.

Methods: Pre and post survey of residents' knowledge of core competencies before and after evaluating a case for presentation. The survey employed a 5 point *Likert* scale to record residents' responses.

Results: 8/11 residents and 2/2 fellows participated in the preliminary survey. 7/11 residents responded to the follow-up survey. Systems based practice and communication were the competencies the participants identified as areas where they felt their practice would improve as a result of participation in this exercise.

Conclusions: While the number of participants chosen was small, even fewer participated in both surveys. Whether this is due to over all "survey fatigue" or just lack of interest is hard to determine.. Utilization of competency based self assessment tools during case presentations might be a good approach as we teach residents to understand the common link between their education, practice and patient care outcomes. Utilization of these tools might be more effective if residents and faculty use them collectively during conferences, at least in the initial period.

INTRODUCTION

- The Accreditation Council for Graduate Medical Education (ACGME) requires content of graduate medical education to be aligned with the needs of the health care system.
- Training programs must use outcome assessment methods for achievement of educational outcomes.
- The core competencies developed by the ACGME to achieve this goal are *medical knowledge, patient care, systems based practice, practice based learning & improvement, professionalism and communication*.
- Integrating these competencies with the Institute of Medicines (IOM) six goals for improvement in health care (*safe, timely, effective, efficient, equitable, patient centered*) would allow patient care decisions to be guided by the best evidence available
- It would also enable the quality of health care to be directly related to the quality of medical education.

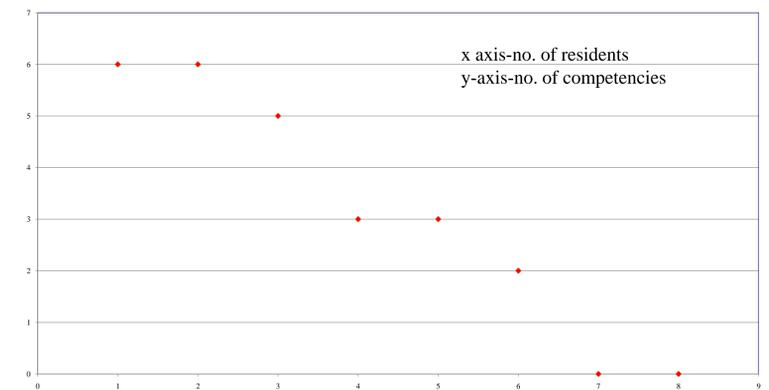
METHODS

- Pre and post survey of residents' knowledge of core competencies before and after evaluating a case for presentation.
- The survey employed a 5 point *Likert* scale to record residents' responses
- Third year pediatric residents as well as pediatric infectious disease fellows were recruited for the survey.
- Following the preliminary survey all participants were instructed in the use of the healthcare matrix and asked to utilize it to evaluate the care given in at least 2 cases they had been actively involved in.
- The follow-up survey was given at the end of January. The residents were given six months between the preliminary and follow-up surveys to allow ample time to select cases.
- Multiple reminders were sent to the participants both electronically as well as in person.
- The surveys were also available on *Survey Monkey* to further facilitate participation by the residents.
- IRB approval was obtained prior to initiating the project.

RESULTS

- 8/11 residents and 2/2 fellows participated in the preliminary survey.
- Only one resident acknowledged complete understanding of the ACGME competencies.
- Two of the residents were able to list all six competencies, the rest had variable responses (figure).
- When asked if they understood how the competencies related to their training the majority answered "somewhat"
- Four of the respondents felt that their current training was preparing them for their future practice based on the ACGME competencies although only one had acknowledged that they understood the competencies.
- When asked to explain what they understood about systems based practice and practice based learning, the majority were able to answer the second question correctly however the responses to the first question were varied and some were inaccurate.
- 7/11 residents responded to the follow-up survey.
- Residents were asked why they selected the particular case, almost all answered that the case was interesting and they were personally involved in the care of the patient.
- When asked if the matrix helped them prepare the case the answers were 'a little' or 'somewhat'.
- Only one resident thought the matrix would be useful for residents to use for future case conferences, the other responses were 'a little' or 'somewhat'.
- When asked if the matrix allowed them to think more carefully about the care that was provided, 4 responded yes, 2 said somewhat and one did not find the matrix useful at all.
- Systems based practice and communication were the competencies the participants identified as areas where they felt their practice would improve as a result of participation in this exercise.

Figure: Knowledge of Competencies Among Surveyed Senior Pediatric Residents: Preliminary Survey



CONCLUSIONS

- It is difficult to draw any definite conclusions based on the extremely small numbers of residents who participated in the survey.
- Whether poor participation was due to over all "survey fatigue" or just lack of interest is hard to determine.
- Senior level residents were recruited since it was felt that they would have a better understanding of the way their training is structured i.e. competency based.
- However, from the small sample it seems that all senior level pediatric residents do not have a clear understanding of the competencies or how they relate to their training and future practice.
- While utilizing the health care matrix did not seem to offer any further benefit in terms of evaluating the care that was provided or help with case conference presentations, the residents did seem to feel that focus on systems based practice and communication skills would help improve their practice in the future.

REFERENCES

1. Using a Healthcare Matrix to assess patient care in terms of aims for improvement and core competencies. Bingham JW, Quinn DC, Richardson MG, et al. *Journal on Quality and Patient Safety* 2005; 31 (2): 98-105
2. Resident identification of learning objectives after performing self-assessment based upon the ACGME core competencies. Caverzagie KJ, Shea JA, Kogan JR. *J Gen Intern Med* 2008; 23(7): 1024-1027