Junior Residents’ Perspective of Learning in an Otolaryngology Boot Camp

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ABSTRACT

Outcome Objectives
- To determine what residents experience in an otolaryngology boot camp (OBC)
- To understand how the individual resident’s background influences learning.

Methods
Using a qualitative phenomenological approach, investigators interviewed 36 junior otolaryngology residents who had participated in a one-day simulation-based OBC. The residents attended camps in Washington, DC (July 2012) or in London, Ontario (September 2012). A semi-structured interview of each resident was recorded and transcribed. Using Moustakas’ analysis, the interviews were broken up into codes and clusters to create a codebook. To ensure trustworthiness of the qualitative data, investigators used upfront debriefing, investigator triangulation, epoch, reciprocal coding of transcripts, member checks, and thick, rich description.

Results
Five learning themes emerged:
- Residents aim to gain knowledge and experience to positively affect their performance and patient outcomes.
- Prior clinical experience and OBC’s realistic scenarios influence resident learning.
- The residents valued their development of leadership and teamwork.
- Residents actively learn by synthesis and application of their knowledge.
- The faculty plays a critical role in the boot camp.

Conclusion
The ACGME has specific core requirements to improve resident performance and competency. To address this, innovative otolaryngology faculty has developed specialty specific boot camps, and quantitative research has documented the learners’ performance gains. Using the residents’ own words, this qualitative research study shows how residents learn and why residents benefit from attending a simulation-based otolaryngology boot camp. This research will help us better understand our learners and how we can improve their learning experience in future activities.

REFERENCES

INTRODUCTION

Given the mandatory duty hour limits and the economic pressure to have service-oriented rotations, otolaryngology residency programs need to develop techniques to assure and maintain optimum learning in the reality of time-constraints. Current and evolving effective teaching techniques are learner-centered, and these techniques revolve around the theory of adult learning. Prior to developing an effective learning experience, program directors and attendings must determine their residents’ learning needs and the attitudes behind these needs. Based on this, programs need to optimize the otolaryngology residency learning experience in order to efficiently train competent and confident otolaryngologists.

This qualitative study1 highlights the learning themes and the prerequisite framework of otolaryngology junior residents as they participate in an otolaryngology boot camp. This research hopes to provide insight into how otolaryngology residents learn and how these residents determine their needs.

METHODS AND MATERIALS

Thirty-five junior residents attended the one-day otolaryngology boot camp in Washington, DC on July 7, 2012, and thirty junior residents attended the boot camp in Ontario, Canada on September 29, 2012. Both camps had similar content and objectives, and residents were either PGY1 or PGY2.

Participation in the research portion of the boot camp was voluntary and consisted of two phone interviews conducted after informed consent. The first interview was conducted within a month of the boot camp and the second interview was conducted halfway through the academic year. This project is based on the first round of interviews.

The interview questions were developed to capture the experience and essence of learning in the boot camp. A standardized interview guide was utilized; the interviewers had the freedom to ask additional questions as appropriate during the interview. These interviews were recorded and transcribed. Analysis of the interviews was performed as described by Moustakas.2

DISCUSSION

Training and educating residents is an evolving field. Due to the mandatory duty hour limitations and the recognition of adult learning, the education of residents has changed over the years. It has already been shown that boot camps are effective tools in educating residents.1 This particular study shows that junior residents employ educational factors to help facilitate their learning. As adult learning suggests, this confirms that residents are self-directed learners and internally motivated. This was a driving force for their acquisition of their fund of knowledge. The realism of the boot camp is important as it helps replicate real life scenarios and this positively impacts the residents learning. While the boot camp did not primarily stress the development of teamwork and leadership, this was indeed a byproduct of their participation. It is apparent that residents need an opportunity to reflect and apply their knowledge to current and new situations. An integral component of the boot camp framework is the faculty. The faculty were mentioned in the other themes and without them, resident learning would have not been as effective.

RESULTS

A single 20 minute semi-structured interview was conducted each participant. After informed consent, a total of 36 residents were interviewed. The interviews were recorded and transcribed verbatim creating a total of 137 pages and approximately 22,000 words. The interviewers immediately reviewed the transcripts and recordings to ensure accuracy. After analysis based on Moustakas’ method was performed, five major themes emerged.

Table 1. The 5 major themes with textual examples of the residents’ thoughts.

<table>
<thead>
<tr>
<th>Theme</th>
<th>Textual Example</th>
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<tr>
<td>Fund of knowledge</td>
<td>“to assess emergency situations and have the competency to take care of the patients in a timely manner”</td>
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<tr>
<td>Experience and Realism</td>
<td>“I was most pleasantly surprised that we were able to handle instruments that are very common in ENT - like endoscopes. We just don’t get too much experience with them until you are thrown into an operating room and are expected to know how to use them. I found just the assembly part very helpful.”</td>
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<tr>
<td>Teamwork and Leadership</td>
<td>“It was actually fun to get to know each other and (to) solve situations and tasks with each other.”</td>
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<tr>
<td>Synthesis and Application</td>
<td>“I went over some of the things that I had learned. . . Then I would talk with some of my colleagues and see what they would usually do. I would compare what we did in the boot camp and what I thought was the best technique in whatever I was presented with.”</td>
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<td>The Faculty</td>
<td>“(The) boot camp helped with my approach to situations. Figuring out the next step and thinking ahead is the next thing (I need) to work on.”</td>
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CONCLUSIONS

The ACGME has specific core requirements to improve resident performance and competency. To address this, innovative otolaryngology faculty has developed specialty specific boot camps. Quantitative research has documented the learners’ performance gains. Using the residents’ own words, this qualitative research study shows how residents learn and why residents benefit from attending a simulation-based otolaryngology boot camp. This research will help us better understand our learners and how we can improve their learning experience.