A National Needs Assessment of Pediatric Residency Program Directors and Chief Residents on Physical Diagnosis Skills Education

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Background
- Pediatric physical exam is not a formal part of most medical school curricula
- It is unclear if this fundamental skill is taught during residency training or whether this education requires more emphasis

Objectives
- Describe how pediatric physical diagnosis skills are taught at pediatric residency programs
- Gauge resident competence in performing fundamental exam skills as assessed by pediatric program directors and chief residents
- Outline recommendations for teaching pediatric physical diagnosis skills

Methods
- Parallel, online, IRB-exempt surveys were pilot-tested, approved by the APPD Research and Scholarship Task Force, and then distributed via APPD listservs in September-October 2016
- Descriptive statistics were used to evaluate data from numeric attitudinal and competence questions
- Qualitative data were analyzed using conventional content analysis

Outcomes

How do limited physical exam skills impact patient care?
- "During residency, RSV positive patient with tachypnea and wheezing. Treated as bronchiolitis, but really had a fatal myocarditis. We figured it out within a few hours as the tachypnea worsened, but I wish we would have picked it up on our initial exam."  
  
- "As an attending, I had a 1 year old child come in with ‘peritonsillar abscess’. It took a really thorough oral exam on a fighting child to reveal that it was not the tonsils that were affected, but the child was a victim of intentional oropharyngeal trauma. This was a good lesson to demonstrate that you need to do a (thorough) exam yourself, even in an uncooperative child, to get the full picture.”

What are challenges to teaching the pediatric physical exam?
- Lack of time  
  "Faculty time is more limited due to increased clinical responsibilities and higher volumes of patients to see.”  
  "Time is always a challenge given the busy clinical environment.”

- Uncooperative patients  
  "It’s difficult to get patients to agree to multiple exams…”

- Rare physical findings  
  "…we are often looking for the very rare.”  
  "…variability of pediatric development makes physical findings complex…”

- Lack of ‘gold standard’  
  "Lack of good standard, ‘best practices,’ to use.”  
  "Differences in faculty styles on how to teach procedures.”

- Faculty discomfort  
  "…there are a few areas I am weaker in.”  
  "In some cases, my own sense of lack of physical exam skills…”

What are ways to improve physical exam curricula?
- Teach foundational skills in medical school  
  "Formalized national curricula [are] needed in undergraduate medical education.”  
  "…a lot of times, we just assume that these skills are sufficient which may not always be the case.”

- Protected time  
  "Build it into the curriculum as protected time.”

- Bedside teaching with direct observation  
  "Bedside exams with attendings are likely to be the most impactful.”

Acknowledgements
Thank you to the Association of Pediatric Program Directors (APPD) and the APPD Research and Scholarship Task Force for their support.

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Conclusions and Lessons Learned
- Despite the limitation of our response rate, these data reveal the current lack of standardized curricula to teach pediatric physical diagnosis skills during pediatric residency
- Though a formal curriculum is felt to be important by both program directors and chief residents, PDs are concerned about adding physical exam training as another ACGME requirement and instead suggest that these skills should be taught during medical school and refined during pediatric residency
- Both groups identified negative consequences to poor or inadequate pediatric physical exam
- Further research of innovative curricula focused on utilizing bedside teaching and expert clinicians could optimize learning for busy residents and faculty