

A Patient- and ED Provider-Focused Qualitative Needs Assessment Regarding Pediatric Sports-related Concussion Care at the Lehigh Valley Health Network.

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Published In/Presented At

Ferry, B. (2017, March). *A Patient- and ED Provider-Focused Qualitative Needs Assessment Regarding Pediatric Sports-related Concussion Care at the Lehigh Valley Health Network*. Poster Presented at: 2017 SELECT Capstone Posters and Presentations Day. Kasych Family Pavilion, Lehigh Valley Health Network, Allentown, PA.

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A Patient- and ED Provider-Focused Qualitative Needs Assessment Regarding Pediatric Sports-related Concussion Care at Lehigh Valley Health Network

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Background

- Annually there are up to 1.9 million pediatric sports-related concussions in the U.S.^{1,4}
- Average length of recovery for patients treated at a concussion clinic is 17 days.⁶
 - Over ¼ of patients experience symptoms for over a month
- 2015 Harris Poll: ¾ of U.S. adults don't recognize concussions as treatable.³
- In 2015, consensus expert opinion emphasized the importance of viewing concussions as a treatable injury with specific symptom-based interventions.²
- Initially project was intended to focus on patient adherence to care recommendations; however, further understanding of current treatment patterns and needs at the Lehigh Valley Health Network (LVHN) was required first.

Problem Statement

Identify the greatest perceived needs regarding treatment of athletics-related pediatric concussions through patient- and provider-focused qualitative needs assessments at the LVHN Pediatric Emergency Department and the LVHN Concussion Clinic.

Methods

- Patient inclusion criteria: all patients 18 years of age or less who had suffered an athletics-related concussion presenting to LVHN Concussion Clinic for new patient visit
- A needs assessment survey was designed and piloted with three patients
- From August to October 2016, the survey was administered with pre-visit intake forms
- Face-to-face interviews were conducted with LVHN Pediatric Emergency Department staff from November to December 2016.
- Qualitative content analysis with inductive category development was performed on both the survey and interview responses.⁵

Results

- 8 interviews were conducted at the LVHN Pediatric Emergency Department (Fig. 1)
 - Most common provider-identified patient questions: head imaging (62.5%), return to sports (50%) and symptom resolution (50%).
- 50% of the staff members identified understanding the role of the Concussion Clinic as their primary need in management of concussions. (Fig. 1)
- 19 total patient surveys were completed
 - 47% of patients reported no perceived concerns (Fig. 2)

Figure 1. Pediatric ED Staff Survey Responses

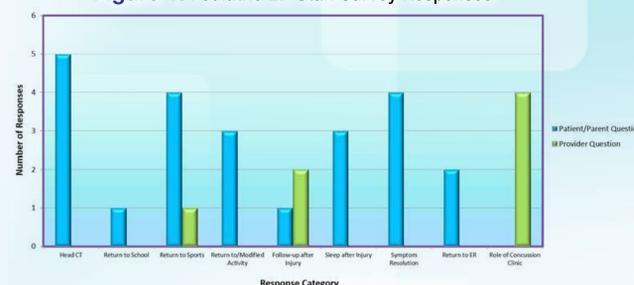
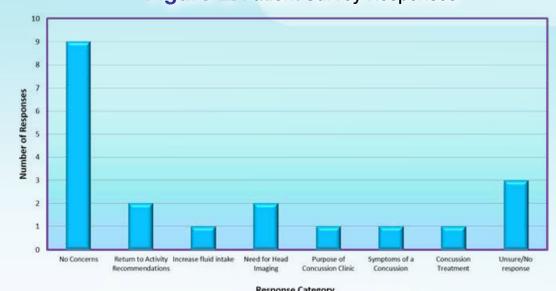


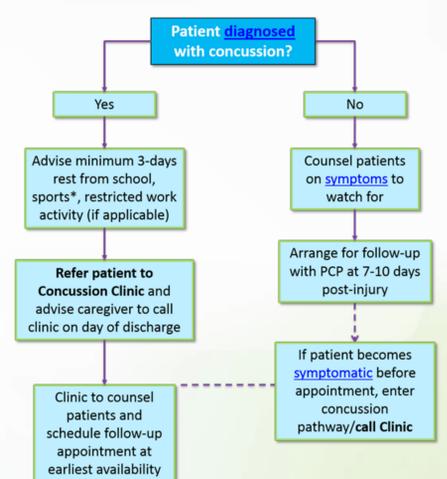
Figure 2. Patient Survey Responses



Discussion

- The most commonly identified need in staff interview responses was a lack of understanding about the role of the LVHN Concussion Clinic in patient care.
- Based on this finding, a flowchart (Fig. 3) was designed to guide patient referrals to the Concussion Clinic from the pediatric emergency department.
 - The flowchart is currently in the process of being implemented as an addition to the pediatric head injury flowchart currently in use.
 - Further follow-up on the efficacy of the flowchart is needed.
- Deficits in patient knowledge regarding diagnosis of concussions, symptoms of the injury, and prognosis for return-to-sport were also identified.
- Further intervention targeted at improving patient knowledge in those areas is also warranted based on information gathered from staff interviews.
 - Proposed interventions include adding a "Concussion Basics" insert into to the existing Concussion Clinic brochure given to patients and potentially assessing how the staff communicates information about concussions.
- The project addressed the SELECT principle of health systems by seeking to better understand and address barriers to optimal care and follow-up of concussed pediatric patients.

Figure 3. Pathway for Follow-up of Patients Evaluated for Concussion in the Pediatric ED



*Return-to-play only after cleared by medical provider

Conclusion

- Lack of understanding of the role of the concussion clinic was identified as the greatest pediatric ED staff need. A flowchart to address this need is in the process of implementation.
- Patient and parent understanding of concussion care was not self-identified in patient surveys but was identified by ED staff as a need. Further knowledge assessment and possible intervention is needed.

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