A Quality Improvement Project to Enhance Pediatric Primary Care Family History Collection

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Background

- Family health history (FHH) review and assessment is a foundational component of the patient’s history and is a useful guide for diagnosis, genetic testing and referral.
- Literature suggests FHH-taking absent or inadequate in pediatric practice.
- A quality improvement (QI) collaborative revealed increased adherence to FHH creation and maintenance following QI efforts (e.g., learning sessions, access to genetics resources).

Purpose & Aims

The purpose of this QI project is to determine whether implementing an educational intervention about pediatric FHH collection will improve pediatric residents’ adherence to FHH documentation.

Aim 1: Increase pediatric residents’ completion rate of FHH collection of newborns by 1-month well-visit.
Aim 2: Increase pediatric residents’ knowledge and awareness of FHH and its importance.

Methods

Design: Pre- and post-intervention study design over 12-week period
Setting: Pediatric outpatient clinic in a large academic teaching hospital
Sample: 2 convenience samples
- Pediatric residents at project site
- Newborns seen at project site

Intervention

- Self-paced Physician Education and Assessment Center (PEAC) module on pediatric FHH was delivered electronically to all pediatric residents 1 week prior to live in-service. Module material was based on a toolkit developed by Rinke et al. (2016) and results from a preliminary survey sent to residents about current FHH gathering practices.

Module objectives:
1. Review American Academy of Pediatrics guidelines
2. List components of FHH
3. Understand broad value of FHH
4. Know when to use tailored vs. targeted FHH
5. Recognized red flags in FHH
6. Know when to refer to genetics
7. Family health history (FHH) review and assessment is a foundational component of the patient’s history and is a useful guide for diagnosis, genetic testing and referral.

Results

50 pediatric residents received the PEAC module and 32 of the residents participated in the in-service trainings.
80 newborn charts were reviewed for baseline data and 50 at post-intervention.
Rate of FHH documentation showed improvement comparing baseline to intervention.
9 identical 15-minute resident in-service sessions highlighted key points from PEAC module and reviewed the clinic’s electronic health record FHH documentation procedure.
Upon verbal feedback from residents, a card was created and adhered to workstation computers as a reminder to document FHH (Figure 1).

Figure 1. Sample of card with “SCREEN” mnemonic and reminder to document family history

Figure 2. Graph of FHH documentation at pre- and post-intervention

Summary & Conclusion

- This QI project determined that an educational intervention on pediatric FHH collection improved adherence to FHH documentation by pediatric residents at the project site.
- There was statistically significant improvement in FHH documentation by the 1-month well-visit. Success of this project suggests FHH education may contribute to resident behavior change.
- Results are consistent with need for genetic education beyond the classroom.
- Future projects may consider including nurse practitioner and physician assistant students for interdisciplinary approach.

Dissemination

- Intervention presented at the Johns Hopkins University, School of Nursing, Pediatric faculty Interest Group (10/08/2019)
- Abstract accepted at 2020 NAPNAP Maryland-Chesapeake Chapter Conference
- Integrative review manuscript on pediatric FHH has been submitted to Clinical Pediatrics journal for review
- Poster virtually displayed at the Johns Hopkins University, School of Nursing, Improving Health Outcomes through Translational Scholarship Symposium (05/17/2020)

References


Table 1. Post-training evaluation results, n = 30

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<tr>
<th>Statement</th>
<th>Confident (%)</th>
<th>Somewhat confident (%)</th>
<th>Beginning confidence (%)</th>
<th>Not confident (%)</th>
<th>Mean rating</th>
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<td>1. List necessary components of a comprehensive FH</td>
<td>5 (16.7)</td>
<td>19 (63.3)</td>
<td>3 (10)</td>
<td>3 (10)</td>
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<td>2. Articulate the value and importance of FH</td>
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<td>17 (56.7)</td>
<td>1 (3.3)</td>
<td>-</td>
<td>4.37</td>
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<td>3. Recognize when to take a targeted or tailored FH</td>
<td>9 (30)</td>
<td>16 (53.3)</td>
<td>5 (16.7)</td>
<td>-</td>
<td>4.13</td>
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<td>4. Recognize red flags in FH</td>
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<td>16 (53.3)</td>
<td>2 (6.7)</td>
<td>2 (6.7)</td>
<td>4.13</td>
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<td>5. Identify where to document family history on Epic</td>
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<td>6 (20.0)</td>
<td>4 (13.3)</td>
<td>1 (3.3)</td>
<td>4.43</td>
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FH = family history