Background

- Medically fragile patients and families often have complex concerns that would benefit from additional coordination of care, education, and resources in order to increase positive outcomes.
- Nurses are integral in the delivery of high-quality, evidence-based care.
- However, it is uncommon for registered nurses or licensed practice nurses to be active participants in patient office visits.
- Increased nurse engagement with medical office visits may lead to higher quality and evidence-based practice, enhanced patient experience, as well as a healthy work environment.

Purpose

- To improve patient care and nurse satisfaction by getting nurses back to the patient bedside. A more proactive approach to patient care by nurses may improve the patient experience while also improving the quality of care delivered and nurse satisfaction.

Methods

- A committee comprised of nurses from each of the 5 pediatric divisions of the NeuroDevelopmental Science Center (NDSC), was established to outline a plan for nurses to get back to the bedside.
- The NDSC divisions include: Developmental Behavioral Pediatrics, Neurology, Neurosurgery, NeuroBehavioral Health, and Physiatry.
- A screening tool was developed to identify patients at-risk for poor medical outcomes.
- NeuroDevelopmental Science Center Care Coordination Complexity Index Tool: The purpose of this index is to identify the level of complexity/intensity involved in NeuroDevelopmental Science Center (NDSC) care coordination.
- The tool originated from The Rocking Horse Community Health Center in Springfield, Ohio. It was modified by John Duby, MD and the nurse group. The final revised tool was named the NDSC Care Coordination Complexity Index Tool (CCCI Tool).

An evidence-based practice, enhanced patient experience, as well as a healthy work environment.

Implementation

- 22 nurses screened patients from December 2016 to July 2017. Nurses re-administered the screening tool 6 months later to evaluate possible changes in complexity scores.
- Nurses also responded to a quarterly survey asking the question, "Am I satisfied with the amount of face-to-face interaction I have with patients and families?"

Outcomes

- 132 patients were identified as at-risk based on overall complexity score and received nurse-guided interventions.
- Statistical significant change was demonstrated in 2 domains, extra care and social concerns.
- Findings suggest that the need for extra care decreased over time, as well as documentation of family, school, or social concerns.
- Contrary to our expectations, nurse satisfaction remained stable throughout the project.

Nurse reviewed patient charts for a 6 month period in the following domains:

- Hospitalizations and Specialty Clinic Visits
- Appointments
- Telephone and MyChart Messages
- Diagnoses List
- Services and Referrals
- Social Concerns
- Nurses gathered information from each category and kept tallies of each occurrence to calculate a total score for each domain. The 6 categories were then totaled for a final complexity score.
- Patients were identified as high risk with a complexity score of 7 or more.
- High risk patients were targeted to receive nurse-led interventions including medication education, treatment plan, and care coordination during an office visit.
- Interventions were tailored to individual patient needs. Face-to-face interactions were the goal, however, if not possible nurses completed outbound telephone calls, MyChart message, or sent the family information via mail.
- To assess the impact of this initiative on work environment, nurse satisfaction was also assessed pre- and post-implementation.

Exclusions: Patients that are active patients of Palliative Care or Clinics in our Center were supporting children and families with neurodevelopmental problems in our Center.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Pre-Implementation</th>
<th>Post-Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitalizations</td>
<td>0.72</td>
<td>0.51</td>
</tr>
<tr>
<td>Specialty Clinic Visits</td>
<td>0.51</td>
<td>0.65</td>
</tr>
<tr>
<td>Appointments</td>
<td>0.66</td>
<td>0.83</td>
</tr>
<tr>
<td>Telephone and MyChart Messages</td>
<td>0.82</td>
<td>0.79</td>
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<tr>
<td>Diagnoses List</td>
<td>0.47</td>
<td>0.83</td>
</tr>
<tr>
<td>Services and Referrals</td>
<td>1.21</td>
<td>0.76</td>
</tr>
<tr>
<td>Social Concerns</td>
<td>0.83</td>
<td>0.79</td>
</tr>
</tbody>
</table>

Time to Complete Tool:

- 0.72
- 0.51
- 0.65
- 0.83
- 0.47
- 0.83
- 1.21
- 0.76
- 0.83
- 0.79

Follow-up group means

- 0.66
- 0.83
- 0.79

Future Directions

- Increase nurse collaboration with providers to identify and meet patient and family needs.
- Start with one nurse division to focus on as model.
- Continue quality improvement initiative and trial several different processes to determine best practices.
- Eventually each nurse division will develop their own process/work flow utilizing the model group findings.
- Assess staffing in each division and plan adequate nurse coverage for phone calls and bedside responsibilities.
- Utilize RNs until adequate staffing established.
- Gather feedback from nurses, providers, patients, and families.
- Make adjustments as needed.
- Nurses proactively complete forms.
- Teach patients and families on medications and healthy lifestyle habits, provide written information on diagnoses, care coordination inside and outside of the facility, accessing community resources, reinforce the plan of care.
- Develop nurse, patient, and family relationships.
- Prepare referral requests at office visit.
- Follow up with outbound phone calls to patients and families.
- Identify nursing certifications to be pursued to enhance knowledge of coordination of care.

Implications

- Although implementing a screening tool demonstrated some positive changes, the complexity of a multi-disciplinary center and lack of nurse buy-in, decreased the success of this project.
- Next steps will include developing relationships not only among nurses but with providers and staff to provide more comprehensive care of patients.

Outcomes from Nursing Intervention

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