

**POPINVITED: ID# 100193**

**Title:**

Development of an Innovative Educational Model for the Tube-Fed Child

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**ACCEPTED**

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**Session Title:**

Maternal-Child Health Nurse Leadership Academy (MCHNLA)

**Slot:**

MCH: Sunday, 17 November 2019: 11:45 AM-12:15 PM

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**Applicable Category:**

Clinical, Leaders

**Keywords:**

G-tube class, Innovative educational model and Maternal Child Health

**References:**

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Majka, A., Zhen, W., Schmitz, K., Niesen, C., Larsen, R., Kinsey, G., Murand, A., Prokop, L., & Murad, H. (2013). Care coordination to enhance management of long-term enteral tube feeding: A systematic review and meta-analysis. *Journal of Parenteral and Enteral Nutrition*, 38(1), 40-52.

Schweitzer, M., Aucoin, J., Docherty, S., Rice, H., Thompson, J., & Sullivan, D. (2014). Evaluation of a discharge education protocol for pediatric patients with gastrostomy tubes. *Journal of Pediatric Health Care*, 28(5), 420-428. doi:10.1016/j.pedhc.2014.01.002

**Abstract Summary:**

In order to provide consistent education with tube fed children, a class was created which offers families the ability to learn through hands on tools in a structured environment. This will increase families' confidence improving their independence in managing their child's tube which result in better outcomes.

**Content Outline:**

Objective	Steps on meeting the objective
Families of children with G-tubes will feel more confident in managing their child's tube.	Survey obtained after class to assess level of confidence.
Less unnecessary clinic visits, EDTC visits, phone calls and readmissions for those that attend the G-tube class	Post data to be collected and compared to those that do not participate in the class.

**Topic Selection:**

Maternal-Child Health Nurse Leadership Academy (MCHNLA) (25199)

**Abstract Text:**

**Background:** Enteral feeding is the provision of nutrition to the gut either orally, through a tube or other device. Management of children who require enteral tube feedings is complex because an interprofessional team of providers share the responsibility of the child’s care with the child and family. The parent-child interaction is an important part of assessment and treatment. Consequently, a key competency is educating families. On average, Children’s Hospital of Wisconsin places 230 durable enteral feeding tubes a year. About 3% of all discharges leave the hospital with a new durable feeding tube. Growth in the patient population and staff turnover makes it challenging to maintain nursing competencies on managing children with feeding tubes. As standards of care were developed for nursing staff, we identified a need for improvement with education: inconsistencies with teaching led to confusion for parents at home. This resulted in unnecessary phone calls, visits to the Emergency Room (ER) and clinics. In reviewing 447 charts of tube-fed patients from 2017 and 2018, 72% had calls related

to concerns, 19% had unexpected clinic visits, 21% had ER visits, and 0.5% were re-admitted related to complications or interventions needed. These are costly for both family and the hospital, considering a visit to the ER is a minimum of \$338. Despite the implementation of a gastrostomy tube (G-tube) Resource Nurse Clinician, written and electronic resources for staff and families in the post-op phase of tube placement, three main educational barriers persisted: (a) variances with how topics are taught to families, (b) the quick turnover of discharges resulted in same-day education (c) the environment in the room is not optimal to learning as the child is recovering from a surgery and often demand the attention of their parent. An innovative educational delivery model was needed. The project is part of the Maternal-Child Health Nurse Leadership Academy (MCHNLA), presented by Sigma Theta Tau International Honor Society of Nursing (Sigma) in partnership with Johnson & Johnson.

**Purpose:** The purpose of this project was to develop a live, interactive educational class for families of children with enteral tube feeds that improved consistency in messaging, increased parent caretaking confidence, decreased unnecessary phone calls to the hospital discharge, and decreased visits to the Emergency Room and clinics.

**Methods:** The G-tube nurse met with key stakeholders in the hospital to include: clinical leadership, clinical staff, Information Technology Department (IT), and nutrition who became part of an activation group that helped design the new educational model for families of children with enteral tube feeds. The class was designed to be: ( a) live and led by a G-tube nurse, (b) interactive with props but in an environment that allowed optimal focus, (c) able to accommodate 1-2 sets of parents, (d) no cost to the families, and (c) delivered pre-op. The class included discussion on what to expect after surgery, how to manage the tube and skin around the tube, troubleshooting issues and resources. During the class, the parents practiced these skills on a doll. The class was encouraged but not mandated. Supplies for the class were covered by the G-tube company and hospital. An educational tab was added in the Electronic Health Record (EHR) to allow all the interprofessional hospital staff involved in the management of the child and family, to view and verify the documented education and competencies taught in the new class. Electronic sign-up and staff referral is also part of the EHR build. The new G-tube class was piloted January –September, 2019 on a pediatric gastroenterology unit where children were expected to be discharged the day after tube placement. A confidence survey was administered at the end of each class to the families. Pre-implementation and post-implementation data on number of phone calls to the hospital post-discharge, visits to the Emergency Room and clinics, and readmissions were collected.

**Results:** All parents who attended the new class stated that it was helpful. Tube management confidence scored 100% from all the parents who took the new class. Pre-implementation and post-implementation data analysis on number of phone calls to the hospital post-discharge, visits to the Emergency Room and clinics, and readmissions is pending.

**Conclusion:** The implementation of an innovative approach to educate families of the tube-fed child receives strong patient satisfaction and reported high confidence levels among families. The next steps for this project is multi-unit implementation and evaluation. Research is needed to understand the effectiveness of this innovative approach long-term with families and the immediate impact on care management prior to discharge.