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Shared Medical Appointments for Pediatric Asthma

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Shared Medical Appointments for Pediatric Asthma

Introduction

Asthma is a common chronic condition diagnosed in childhood, and is recognized as a growing public health concern. The effects of asthma include missed school, disruption of sleep and daily activities, urgent medical visits for asthma exacerbations, and even death. Currently this disease affects 7.1 million children in the United States. ("American Lung Association," 2014) The estimated cost of caring for children with asthma is over \$10 billion. (Werner, 2014) These numbers illustrate the high burden of asthma. The American Heart, Lung and Blood Institutes (NHLBI2007) recommend that asthma control focuses on reducing impairment and reducing risk. NHLBI also recommends that achieving and maintaining asthma control requires: providing appropriate medication, addressing environmental triggers, helping patients learn self-management skills, and monitor over the long term to assess control

Evidence suggests that only one-third of children diagnosed with asthma have an asthma action plan, and most did not receive education on triggers and treatment for exacerbation (Werner, 2014) Current asthma care can be inconsistent due to providers' variable approaches to asthma diagnosis and management guidelines, as well as limited availability of patient-centered education This variability is often a result of time and cost constraints (Wall-Haas, Kulbok, Kirchgessner, & Rovnyak, 2012). An approach to overcoming these constraints and increasing adherence to guidelines is the shared medical appointment (SMA).

The SMA is a medical appointment carried out with a group of consenting patients and their caregivers by a provider and other health professionals. SMAs are typically designed as 90-minute medical appointments in which 4 to 9 patients and their caregivers are seen in a group

setting. (Noffsinger, 2009). This type of appointment allows both the provider and the patient to bridge a gap between individual appointments, which frequently lack the time needed for detailed education. In addition, the SMA allows for patients to share experiences and discuss common issues with others who have the same medical diagnosis. The SMA for pediatric patients with asthma provides an opportunity for in depth education related to the diagnosis and management of asthma. This format allows patients and caregivers to participate in open group discussion with the health care team and each other. In addition, a focused medical examination is conducted. Multiple studies have demonstrated that patients felt that attending SMAs improved their knowledge base. (Lock et al., 2012)(Rijswijk, Zantinge, Seesing, Raats, & Van Dulman, 2010)(Wall-Haas et al., 2012). In addition patients surveyed in the aforementioned studies demonstrated that the social support of other patients with similar medical conditions improved not only knowledge but positively impacted quality of life (Lock et al., 2012)(Rijswijk et al., 2010)(Wall-Haas et al., 2012).

Practice Change

The practice change involved developing and implementing a primary care based SMA for children diagnosed with asthma and their primary caregivers in a large pediatric practice in Southern California. The process began by meeting with key stakeholders to discuss organizational goals, which included increasing adherence to asthma guidelines in a primary care setting. Based upon these goals a clinic specific policy for the SMA was developed. and clinic staff were educated on the format and implementation of the SMA. Patients diagnosed with asthma, who would benefit from the SMA, were identified by providers during routine primary care visits. Patients who were interested in participating in the SMA self- scheduled for a date

and time that worked with their schedule. Four SMA Sessions for children with asthma and their caregivers were held between October, 2015 and January, 2016.

Education

Staff members were educated about the benefits of group appointments, and their roles to specific the implementation of the SMA. Training on administering PFTs was completed by the ancillary staff. Educational resources were compiled and placed in a folder for patients and their caregivers related to asthma diagnosis.

The SMA

The SMA team consisted of five members: the provider, who was a nurse practitioner, the facilitator who was a registered nurse, and three ancillary staff members. (See figure 1) All members of the team were employees of the pediatric clinic who volunteered to participate in the SMA.

Figure 1

Role	Responsibility
<p>1 Facilitator (RN, NP, MD)</p>	<ul style="list-style-type: none"> • Welcomes group • Reviews informed consent with participants • Provides group teaching appropriate for asthma care • Facilitates group discussion
<p>1 Provider (NP, MD)</p>	<ul style="list-style-type: none"> • Reviews patient charts prior to appointment • Completes physical examination • Refills medications • Adjust management if needed • Participates in group discussion • Completes Asthma Action Plan
<p>3 Support Staff (MA, LPN)</p>	<ul style="list-style-type: none"> • Obtains vital signs • Administers PFTs • Administers Flu vaccine as indicated • Assists in documentation

Scheduling Staff

- Schedules appointment
- Calls patients to remind them of the appointment

Each group visit was conducted in a large meeting room in the clinic and lasted 90 minutes. The visit was inclusive of spirometry, development of an asthma action plan, and an individual physical examination. After checking in, the patient and caregiver had vital signs obtained, and PFTs completed by support staff. While waiting for the entire group to assemble, the caregivers completed asthma knowledge pre-test utilizing the modified New Castle Asthma Questionnaire, as well as an Asthma Control Test. When the group was assembled the facilitator introduced the staff and explained the purpose of the group and discussed confidentiality. All caregivers then signed a HIPPA confidentiality agreement, demonstrating that their participation in the SMA, and sharing of individual health information was voluntary. Parents were then asked to write down any specific questions they had regarding asthma, these were then collected by the behaviorist and answered during the SMA. The NP reviewed the asthma control test and asked about recent health history, and medications. Then a focused physical exam was conducted on each child while the facilitator provided information regarding asthma care and management to the group. During the exam the physical findings were dictated to the group and recorded in the patient's chart by an ancillary staff member. The NP updated individual asthma action plans to reflect their current asthma status. During this time the facilitator continued to address questions and discuss asthma related care such as correct use of an inhaler and spacer. This process continued until all children had been examined. The parents were encouraged to ask questions throughout the SMA. Children were given small prizes and coloring books for participating. After the examination and discussion period concluded, new medications were added to the

management plan as appropriate, prescriptions were refilled and children received the flu vaccine as needed. At the conclusion of the SMA caregivers completed the asthma knowledge post-test using the same modified New Castle Asthma Knowledge Questionnaire, as well as a patient satisfaction survey.

Results

There were four SMAs with a total of 21 children in attendance inclusive of all 4 groups. The number of participants ranged from 3- 7 parent child dyads, with a mean attendance of 5. The ages of the children ranged from 3-13 years, fairly equally split by gender with 11 females, and 10 males. In total, 20 mothers and 3 fathers attended the SMA. There was one set of siblings, both who had a diagnosis of asthma.

The Asthma Control Test was completed by all participants with the exception of one child who was under the age of 4 years, who completed a TRACK score. The ACT scores ranged from 12-25. The mean score was 19.75; a score of 19 or less indicates asthma that the child's asthma is not well controlled. Across all of the SMAs 50% of children demonstrated a score of 19 or lower and required a change in their asthma management.

The Pre Test knowledge scores ranged from 55%-95% with a mean score of 79.6%. The post test scores ranged from 65%-100% with a mean score of 86.3%. These scores indicate a modest improvement in knowledge.

The SMA provided a forum in which spirometry could be performed and asthma action plans updated. Prior to the SMA none of the participants had spirometry, this increased to 100 % as all of the eligible children had completed spirometry as part of the SMA. Prior to the SMA, 57% of children had completed asthma action plans; all participants received updated asthma action plans during the SMA, increasing this to 100%.

Figure 1

Role	Responsibility
1 Facilitator (RN, NP, MD)	<ul style="list-style-type: none"> • Welcomes group • Reviews informed consent with participants • Provides group teaching appropriate for asthma care • Facilitates group discussion
1 Provider (NP, MD)	<ul style="list-style-type: none"> • Reviews patient charts prior to appointment • Completes physical examination • Refills medications • Adjust management if needed • Participates in group discussion • Completes Asthma Action Plan
3 Support Staff (MA, LPN)	<ul style="list-style-type: none"> • Obtains vital signs • Administers PFTs • Administers Flu vaccine as indicated • Assists in documentation
Scheduling Staff	<ul style="list-style-type: none"> • Schedules appointment • Calls patients to remind them of the appointment

Figure 2

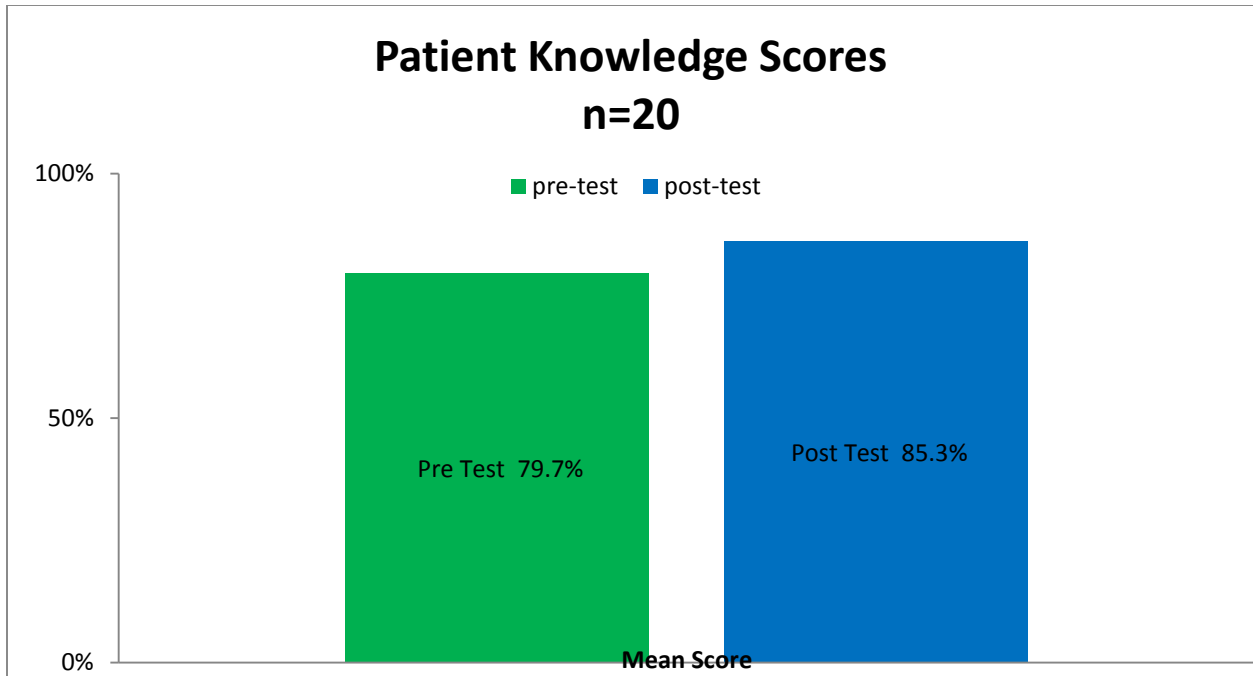
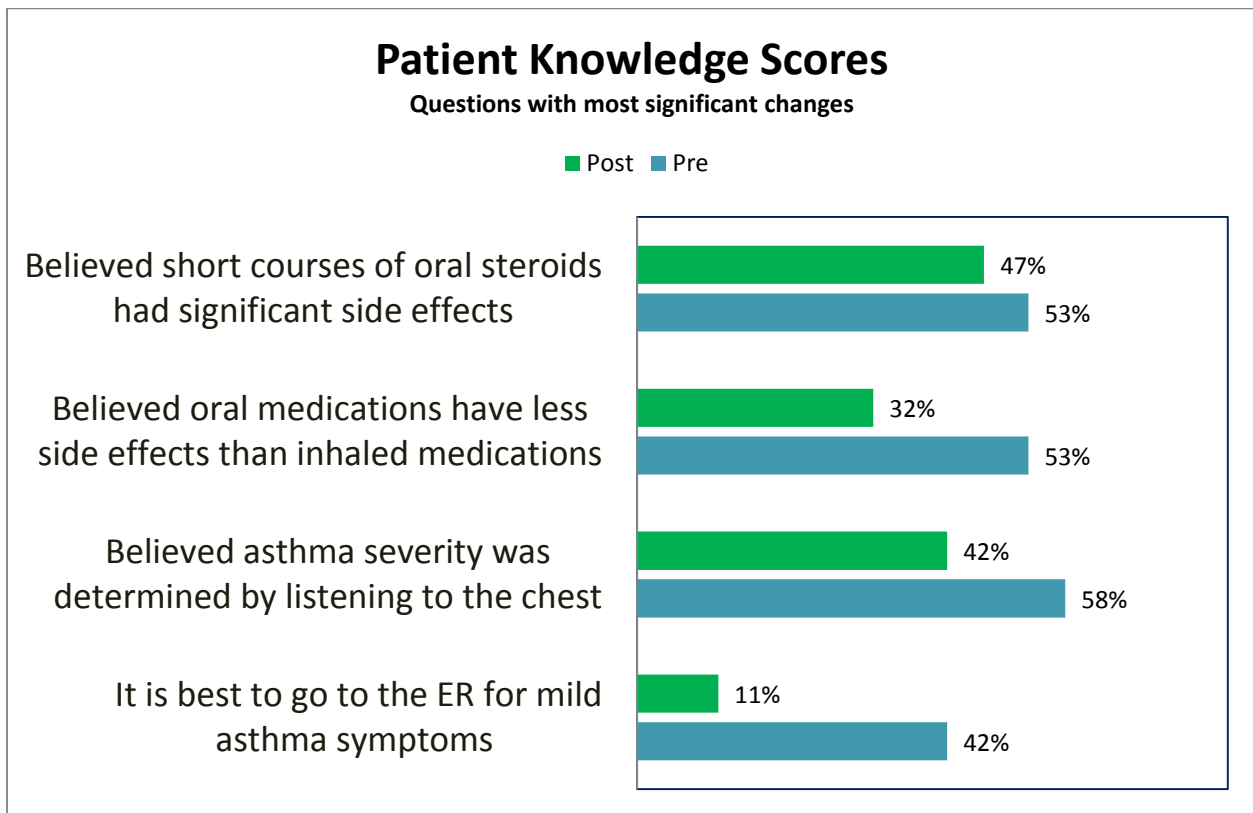
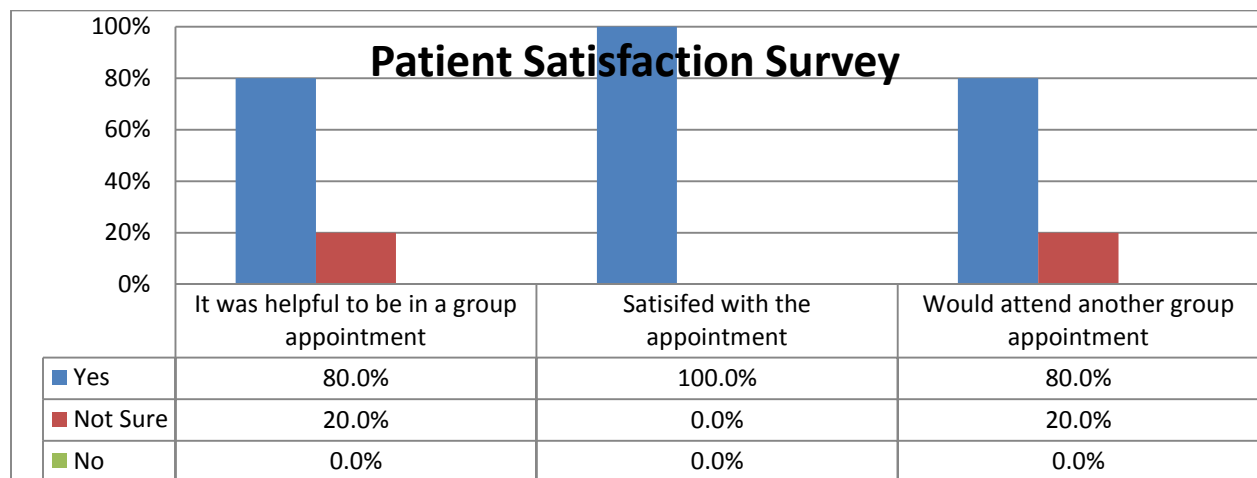


Figure 3



Satisfaction surveys were completed by all participants. The surveys consisted of five questions, with yes, no, or not sure as an option, and also provided an opportunity for participants to write comments. One hundred percent of the participants were satisfied with the appointment. Specific comments related to the group format made by participants acknowledged the value of interacting with other families. Comments included: “I liked being able to hear from other parents and voice concerns without being rushed through an appointment” “I liked hearing other parent’s experiences.” “I liked learning about useful things to do at home to help prevent asthma attacks.”

Figure 4



Conclusions

Managing chronic illness such as asthma can be a challenging process requiring significant education and management which can be difficult to accomplish in a routine primary care visit.(Wall-Haas, 2012) The SMA is an effective way to deliver improved asthma care by providing a comprehensive assessment, diagnostics, and physical exam in conjunction with education in a longer appointment time. The SMA also allows for shared learning and support of other families, as well as the development of the skills and knowledge for self-management of

asthma. The NP is in a unique position to assume the role as a facilitator and provider of the SMAs, leading to positive outcomes for children diagnosed with asthma.

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