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## Background

Community PedsCare was established in 2000 by Community Hospice of Northeast Florida through the collaboration of healthcare organizations throughout Northeast Florida to address the need for holistic care coordinated services for children with life-limiting and life-threatening conditions. The primary approach of the Community PedsCare palliative care program is a multiple disciplinary approach that involves psychosocial, nursing, bereavement support, spiritual counseling and volunteer interventions for children under age 21 with life-limiting illnesses.

Study Question 1: Will a pediatric palliative care intervention impact hospital costs and utilization?

Study Question 2: Will a pediatric palliative care intervention impact family caregivers' perceptions of health related quality of life?

The purpose of this poster is to present the results of an outcome evaluation of a pediatric palliative care intervention on healthcare costs and utilization and health related quality of life.

*Community PedsCare enhances the quality of life for children with life-limiting and life-threatening conditions and their families.*



Photo by Ingrid Damiani

*The Community PedsCare team customized its care plan according to the needs and the abilities of the child.*



Photo by Ingrid Damiani

## Methodology

### Design

The outcome evaluation consisted of three components: 1) a retrospective study of the cost and utilization of services pre- and post enrollment of children into the program; 2) comparison of the utilization and cost for Community PedsCare clients with other children with similar ICD 9 coded conditions; and 3) a retrospective study to assess the perceived health related quality of life (HRQOL) of family caregivers of Community PedsCare clients.

### Sampling

Cost and Utilization Study: Baptist Hospital's and Community Hospice's Electronic Databases were used to identify the intervention group and the control group. The intervention group consisted of Community PedsCare clients who received Community PedsCare Palliative care services from 2000-2006. The control group was purposefully selected identifying pediatric clients of similar age and ICD9 diagnostic codes who were not Community PedsCare Clients.

HRQOL Study: Purposeful sample of 2007 Caregivers of Pediatric clients

### Analysis

Cost and Utilization Study: A matching criterion was established at a 1:2 ratio to increase statistical power through SAS programming. Datasets were linked and stripped of personal identifiers through SPSS during analysis. Statistical tests were used to assess statically significant differences at the .05 level and .10 level (marginal significance) between the control and intervention group.

HRQOL Study: Frequency and percentages of survey responses were calculated. Additional analyses were conducted through a one-way Analysis of Variance followed by a bivariate linear regression to assess the effects of clients' length of enrollment in Community PedsCare on the HRQOL categorical responses. Due to a small sample size, these statistical tests were assessed at both the .05 level and .20 levels (marginal significance).

## Results

**Cost and Utilization Study:** From 2000-2006, statistically significant reductions occurred in hospital utilization per quarter ( $p=.03$ ) among Community PedsCare clients (see Table 1). Meaningful reductions in hospital charges per quarter were observed, but these reductions were not statistically significant due to small sample size. The comparison study did not reveal a statistically significant difference between Community PedsCare clients and a control group. **HRQOL Study:** Family caregivers tended to score high on the HRQOL scales, averaging from 4.5 to 5 on all categorical constructs (1 to 5 scale). Significant ( $p \leq .05$ ) relationships to clients' length of enrollment in the Community PedsCare occurred for reported days of impaired emotional health due to fear ( $p=.02$ ) and reported days of activity limitation due to emotional problems ( $p=.02$ ) [see figures 1 and 2].

## Conclusions

The outcome evaluation of a pediatric palliative care has important implications for improving hospital costs and utilization and quality of life of families with children with chronic conditions. These results are preliminary due to: 1) a small overall sample size; and 2) methodological challenges encountered in using ICD 9 codes to identify comparable Community PedsCare and non-Community PedsCare groups (types and severity of conditions) of children for the impact study.

## Public Health Implications

The results demonstrate lower costs, lower utilization of hospital services and improved perception of quality of life. Further study is warranted with longitudinal and multi-site investigations using the tools and approaches piloted in this study to strengthen sample size and generalizability.

*Community PedsCare is designed to provide care, comfort and support to children, their parents, caregivers and families.*



Photo by Ingrid Damiani



## Tables and Figures

**Table 1. Hospital Utilization and Costs: Before and After Community Pediatric Palliative Care, Community PedsCare**

PedsCare Pediatric Client	Before Pediatric Palliative Care N=40		After Pediatric Palliative Care N=40		P-value*
	Mean	Standard Error	Mean	Standard Error	
<b>Cost and Utilization Findings</b>					
Length of Stay (Days/Quarter)	2.92	.94	1.22	.39	<b>0.03*</b>
Total Diagnostic Charges/Quarter	\$2,125.30	918.44	\$1,078.28	430.11	0.13
Total Charges/Quarter	\$7,866.59	2,347.31	\$6,663.52	2,785.22	0.34

\*P-value < .05

