

implementation of strategies to control nosocomial infection, active surveillance of infection rates, and adherence to well-planned antibiotic protocols.

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A Study on Parental Stress in the Neonatal ICU Using Parental Stressor

BACKGROUND: Parents of neonates admitted to the NICU undergo a great deal of stress, making it imperative for health care providers to identify and act on the sources of this stress.

OBJECTIVES: In this prospective study, we determined the level of stress among parents of neonates admitted to the NICU by using the Parental Stressor Scale: Neonatal Intensive Care Unit (PSS: NICU). We also correlated the scores obtained with relevant parental and neonatal factors that could contribute to parental stress. The study setting was a tertiary care NICU in northern India.

METHODS: The study was conducted from November 2009 to April 2011. All parents of neonates admitted to the NICU for at least 48 hours were administered the PSS: NICU. Relevant parental demographic data and relevant neonatal data were collected. Total as well as mean scores and subscores were obtained. Correlation of the scores with other factors was conducted by using SPSS version 12.

RESULTS: A total of 343 parents completed the questionnaire. The total mean PSS: NICU scores ranged from 1.35 to 4.91 (mean: 3.71). The mean score for mothers was 3.78, and the mean score for fathers was 3.65. The mean subscores were highest for infant behavior (mean: 4.25), followed by parental role alteration (mean: 3.64). The mothers scored higher than the fathers in all subscores. Factors such as birth weight and gestational age influenced the stress levels to a significant degree; factors such as gender of the neonate, education and socioeconomic status of the parents, presence of birth asphyxia, ventilation status, and the nature of the infant's illness did not influence stress to any significant levels.

CONCLUSIONS: Parents of neonates admitted to the NICU experience high levels of stress. Parents of neonates with lower birth weights and gestational age experience more stress.

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The Training and Career Paths of Canadian Paediatric Residents, 2004–2010

BACKGROUND: Canadian pediatric residents usually pursue training in general pediatrics or subspecialty pediatrics. Graduates can work in community-based settings, hospital-based settings, or a combination thereof. Furthermore, new graduates may work in large urban or rural/remote centers. To date, no study has profiled the training and career paths of Canadian pediatric residents.

OBJECTIVES: The goal of this study was to profile the training and career paths of pediatric residency program graduates in Canada.

METHODS: A survey of all pediatric residency programs was completed in 2010 and updated in 2011. All residency programs in Canada participated. Data on residents were reported by their core training program (at completion of their third year of postgraduate training).

RESULTS: A total of 699 residents completed their core training in pediatrics in Canada between 2004 and 2010. The annual number of pediatric residents who completed their core training rose from 83 in 2004 to 122 in 2010. Training path data were available for 685 (98%) residents. Overall, 430 (63%) residents completed subspecialty training, whereas 255 (37%) completed general pediatric training only. There was a significant increase in the frequency of subspecialty training from the early graduates (2004–2007) to the later graduates (2008–2010) (Fig 1). Career path data were available for 665 (95%) of all Canadian pediatric residents: 405 (61%) of residents were working as subspecialists or still in training, 245 were working as general pediatricians, and 15 graduates (2%) had other practice types. Of all residents currently in practice, only 36 (8%) were working in rural/remote or underserved areas.

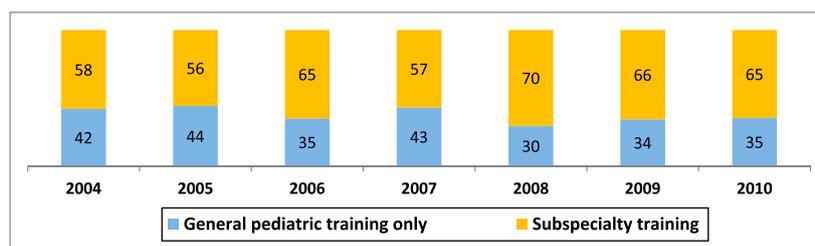


FIGURE 1 Percentage of residents who completed general pediatric training only versus subspecialty training, 2004 to 2010.

CONCLUSIONS: More than 60% of all Canadian pediatric residents pursue subspecialty careers. There was a significant increase in the frequency of subspecialty training among later-year graduates. Few graduates are practicing in rural/remote or underserved areas. Canadian pediatric residency programs may not be producing the right mix of graduates to meet societal needs.

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Features in Septic Children With or Without Severe Acute Malnutrition and the Risk Factors of Mortality

BACKGROUND AND OBJECTIVE: Immunity is heavily impaired in children experiencing severe acute malnutrition (SAM), often resulting in sepsis and death. Knowledge of biochemical derangements during the early stage of sepsis among these children with SAM would help in their treatment and reduce fatality. The goal of this study was to describe and compare the features of sepsis in children with SAM and those without SAM, and the risks and associated factors of death in septic children.

METHODS: Children aged 6 to 59 months with SAM (weight-for-height z score ≤ 3) or bipedal edema and non-SAM admitted with diarrhea plus sepsis at the icddr,^b hospital from April 2010 to December 2011 were studied prospectively.

RESULTS: A total of 126 children (48 with SAM and 78 without SAM) were studied; all had diarrhea and sepsis. Their mean \pm SD age was 19.1 ± 14.2 months; 52% were female; capillary refill time, neutrophil and band %, serum urea nitrogen, pH, hemoglobin, platelet, serum total CO₂, phosphate, calcium, C-reactive protein, creatinine, and creatine kinase were similar between SAM and non-SAM children ($P > .05$). However, serum sodium and albumin levels were lower and leukocyte count, hypoglycemia, septic shock, and mortality rates were higher in SAM than in non-SAM children ($P < .05$). Logistic regression showed that septic children with SAM were 13 times more likely to have fever or hypothermia than septic children without SAM. Among these 126 children, 25 (19.8%) died. Weight-for-height z score (-3.0 ± 2.1 vs -2.7 ± 1.5), % band cell (5.2 ± 6.4 vs 2.6 ± 5.5), sodium (154 ± 29 vs 142 ± 21), serum urea nitrogen (25.7 ± 21.5 vs 17.8 ± 16.1), and septic shock (92% vs 9%) findings were significantly higher, and hemoglobin (9.2 ± 1.6 vs 10.3 ± 2.0) and

albumin (2.9 ± 1.1 vs 3.4 ± 0.8) levels were significantly lower, among those who died than in the children who survived, respectively. Children who died were 4 times more likely to be severely wasted and 3 times more likely to have had moderate anemia.

CONCLUSIONS: The case fatality rate is significantly high in sepsis, particularly in septic shock and children with SAM. These features may assist in the better management of septic children with or without SAM and thus reduce fatality.

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Effect of Guided Imagery Relaxation Session and Story-Telling on the Intensity of Nausea and Vomiting Among Children Undergoing Chemotherapy

The aims of this study were to develop, implement, and evaluate the effect of a guided imagery relaxation session and telling stories on reducing the intensity of nausea and vomiting, as well as make comparisons between the 2 methods. The study used a quasi-experimental design and was conducted at the Pediatric Oncology Department in Tanta University Hospital, the Pediatric Oncology Department in the Tanta Oncology Center, and the Pediatric Oncology Department in the Specialized Pediatric Hospital in Benha University. The study included a convenience sample of 90 children aged between 4 and 18 years receiving chemotherapy. They were classified randomly into 3 groups; the guided imagery relaxation sessions were the first group, story-telling was the second group, and the third group was the control group. The first and second groups were assessed at the first and second months of intervention.

Tools of this study included the Morrow Assessment of Nausea and Emesis Questionnaire, the Rhodes Index of Nausea and Vomiting Likert scale, the Katz Index of Independence in Activities of Daily Living checklist, and a self-rating scale.

The results showed that approximately all children in the relaxation and story-telling groups did not have nausea and vomiting compared with the control group after the first and second months of relaxation and story-telling.

The study concluded that children exposed to guided imagery relaxation sessions and story-telling experienced a lower intensity of nausea and vomiting compared with children in the control group. This study therefore recommends that guided imagery relaxation sessions and story-telling should be integrated into routine nursing care along with pharmacologic

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