Caring for Kids

Bridging Gaps in Pediatric Emergency Care Through Community Education and Outreach

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KEYWORDS

• Outreach • Pediatric emergency care • Trauma • Education

KEY POINTS

- A dedicated Education and Outreach program was developed to improve emergency care of pediatric patients.
- A Quality Survey Assessment of the Education and Outreach program revealed more than 91% of participants agreed the program was beneficial and provided new knowledge.
- Providing specialty education has had a positive impact on establishing collaborative relationships and communication with local health care providers and will likely contribute to improved patient care and a reduction of cost.

INTRODUCTION

In 1913, the American College of Surgeons (ACS) was founded based on the desire to improve the care received by surgical patients and to provide education to surgeons.[1]

Then in 1922, Charles L. Scudder, MD, FACS, established the ACS Committee on Trauma (ACS-COT) whose purpose is to improve the care of injured patients.[1] They accomplish this by designating Trauma Systems of Care that provide optimal care by using the Trauma Systems' available resources.

Receiving care at a Pediatric Trauma Center (PTC) has been associated with lower mortality rates and improved outcomes for injured children.[2] However, up to 90% of injured children do not receive care at a PTC, and will receive care at a nonchildren's hospital due to limited resources and lack of pediatric surgeons and specialists in a given region. This lack of resources has led to the development of academic-community partnerships in Pediatric Trauma Care. Kelley-Quon and colleagues[2] concluded that these academic-community partnerships have been shown to be a

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feasible alternative that may lead to improved outcomes.[2] Therefore, it is imperative that PTCs partner with the community, adult, and rural hospitals to provide education on optimal pediatric emergency and trauma care.[3,4]

The American Academy of Pediatrics Committee on Pediatric Emergency Medicine reports that young adults and children ages 24 years and younger have been shown to use emergency medical services (EMS) less often than adults, accounting for approximately 10% of prehospital emergency responses and 37% of emergency department visits.[5] Because there are a lower number of pediatric patients seen in the prehospital setting, nonpediatric facilities, and in rural settings, it is difficult for staff at nonpediatric facilities to maintain their skills related to pediatric care. This leads to an increased risk of the pediatric population not receiving the appropriate intervention, such as proper cervical spine immobilization and splinting, because the nonpediatric center might not have equipment solely made for children. Additional challenges include lack of access to higher levels of care for EMS for children, especially in rural areas. Therefore, adult centers frequently transfer pediatric patients to a local children's hospital due to lack of knowledge, and reported anxiety about care for the pediatric patient. When pediatric patients are seen at an adult center and then transferred to a pediatric facility, there is an increase in cost and the use of resources for the patient, the patient's family, and the health care system overall. Therefore, providing education and support to adult facilities is important so they are better able to manage less complex pediatric conditions and avoid having to transfer the infant or child to a specialty pediatric facility. This would help reduce costs and provide a more efficient use of resources.

According to Curran and colleagues,[6] rural physicians play a key role in the initial emergency management of trauma and report a higher need for continuing education on pediatric emergencies and procedures as compared with urban physicians. Because of the lack of resources, rural physicians report the need to perform a wide range of procedural skills, which requires them to maintain competency in a number of advanced clinical areas, such as emergency medicine and pediatrics. Rural physicians report they often do not feel sufficiently prepared to perform these advanced clinical skills and procedures and must work more independently than urban physicians without ready access to the latest medical technology and specialist consultation.[6–8]

As early as 1997, continuing education to rural nurses has also shown to be beneficial.[9,10] One trauma center at Denver Health Medical Center (DHMC) integrated rural nursing education into an existing medical outreach program that provided trauma education. The DHMC rural nursing outreach program combined both didactic and clinical instruction on critical care and trauma courses based on the nurses' identified educational needs. Evaluation by participants of the DHMC outreach program to rural nurses reported that the program improved communication, improved collaboration with other health care workers, and was beneficial to trauma patients across the continuum of care.[11]

Paulson[12] described another rural outreach program for emergency nurses called the Emergency Nurses Partnership Program (ENPP), which was developed by West Virginia University in an effort to address barriers to continuing education for their rural nurses. The West Virginia ENPP combined both didactic and clinical instruction on emergency care and trauma to rural communities. Participants of the ENPP reported that they believed that the combined didactic and interactive precepted sessions made a positive contribution to trauma and emergency care in that geographic area.[12]

The Pediatric Level I Trauma Center at Children's Medical Center Dallas, the flagship of Children's Health, established The Pediatric Emergency Services Network (PESN). PESN was created to serve as a resource to provide leadership in