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Oral Health Knowledge and Practices of Pediatric and Family Nurse Practitioners

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ABSTRACT

Introduction: The purpose of the study was to assess the relationship between oral health educational activities of NPs and their current oral health knowledge and practices.

Method: An online survey was distributed to practicing NPs and members of the NAPNAP organization.

Results: The study results from n = 147 NPs indicated an association between oral health CE attendance and knowledge on the age to initiate fluoride toothpaste, age for an initial dental visit, as well as NPs comfort in educating about oral hygiene, diets to reduce caries, bacterial transmission and caries development, in addition to the NPs comfort in performing a risk assessment, oral exam, and identifying decay and other oral pathology compared to NPs that had not attended a CE course.

Discussion: The study findings demonstrate the importance of CE courses for NPs on the latest oral health guidelines and practices beyond their traditional academic education, in order to improve oral health outcomes among children. J Pediatr Health Care. (2017) ■■, ■■-■■.

KEYWORDS

Oral health, nurse practitioner, education, pediatrics

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Conflicts of interest: None to report.

The John A. Burn School of Medicine biostatistics staff were partially supported by Grant U54MD007584 from the National Institutes of Health (NIH). The content is solely the responsibility of the authors and does not necessarily represent the official views of the Centers for Disease Control and Prevention or NIH.

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0891-5245/$36.00

https://doi.org/10.1016/j.pedhc.2017.12.005

INTRODUCTION

Despite a heightened awareness about the importance of dental visits at an early age, many children in the US continue to suffer from dental disease (Dye, Mitnik, Iafolla, & Vargas, 2017; Edelstein & Chinn, 2009). The etiology of dental disease in children is multifactorial and the lack of dental access for children has been repeatedly documented as a significant element that negatively affects children's dental outcomes (Meyer et al., 2017; Shariff & Edelstein, 2016). Dental access can be problematic, particularly for those families living in rural areas and those children living in low-socioeconomic households (Liu, Probst, Martin, Wang, & Salinas, 2007; Shariff & Edelstein, 2016). Regardless of the availability of dental insurance (Medicaid) for low-income children, families continue to struggle to find dentists willing to see young children (i.e., those under the age of 3 years) and/or to provide services to low-income populations (Decker, 2011; Garg et al., 2013).

The consequences of early childhood dental caries are multiple, with varying degrees of severity.

Children with caries may suffer from pain, failure to thrive, poor school performance, and diminished quality of life. Moreover, they are at an increased risk for developing serious and potentially life-threatening systemic diseases requiring hospitalization (Casamassimo, Thikkurissy, Edelstein, & Maiorini, 2009; Pew Center on the States, 2011). Children with caries in their primary teeth are also at risk for the development of caries in secondary (i.e., adult) dentition (Li & Wang, 2002). Furthermore, the current literature has recognized the various effects that adult periodontal disease has on the development of systemic diseases, such as cardiovascular disease, respiratory infections, diabetes, preterm labor, preterm births, and low-birth-weight births (Kuo, Polson, & Kang, 2008; National Institute of Dental and Craniofacial Research [NIDCR], 2002), which are costly to both the individual and the health care system (Casamassimo et al., 2009; Jeffcoat, Jeffcoat, Gladowski, Bramson, & Blum, 2014). Hence, preventing dental disease and its potential long-term effects requires early and repeated preventive services.

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The periodicity guidelines developed by the American Academy of Pediatric Dentistry (AAPD) recommends that dental care should begin within 6 months of the eruption of a child's first tooth and no later than 1 year of age (AAPD, 2013). Oral health promotion, including caries risk assessment, dental examination, oral health education, fluoride supplementation, and fluoride varnish application, has also been recognized by the American Academy of Pediatrics as a priority (Hagan, Shaw, & Duncan, 2017). These oral health preventive activities can be safely and effectively provided to young children by both nurse practitioners (NPs) and physicians in primary care settings, with reimbursement provided for these services by Medicaid in many states. This much-needed shift in the delivery of oral health promotion outside of the traditional dental office is supported by many major medical and nursing organizations. Specifically, these activities are in alignment with current primary care guidelines that recommend including oral health screening and education beginning in early infancy and at each well-child visit (Hagan et al., 2017). Skillman, Doescher, Mouradian, and Brunson (2010) outlined the challenges of delivering oral health services, the need to use existing providers such as primary care providers, and creating and using new types of providers (e.g., dental therapists) to deliver dental care in the rural areas of the US. Recent research results have supported the benefits of oral health promotion in primary care practice and the important role that nurses and NPs can make in reducing the rates of dental caries and helping families access dental services for children at an early age (Achembong, Kranz, & Rozier, 2014; Mattheus, 2014).

Oral health preventive activities can be safely and effectively provided to young children by both NPs and physicians in primary care settings,

Despite the availability of both nursing and medical professional educational activities focusing on oral health, there is limited literature documenting the current knowledge, attitudes, and practice patterns of pediatric nurse practitioners (PNPs) and family nurse practitioners (FNPs) in the US. In addition, there is a lack of documentation about the value and impact of oral health education that occurs in NP advanced degree programs and/or through oral health continuing education (CE) courses focusing on the NP's oral health knowledge and practice patterns (Danielsen, Dillenberg, & Bay, 2006; Wooten, Lee, Jared, Boggess, & Wilder, 2011). The aim of this study was to evaluate the oral health knowledge and practices of PNP and FNP members of the National Association of Pediatric Nurse Practitioners (NAPNAP) in the US.

METHODS

Participants

The participants surveyed for this study were NPs and current members of the NAPNAP organization at the time of the study. The NAPNAP organization consists of approximately 8,000 members. However, not all NAPNAP members actively practice as PNPs or FNPs, with some members identifying as registered nurses (RNs). Therefore, RNs did not meet the inclusion criteria for this study.

The study was submitted to the NAPNAP Research Committee and to the University of Hawai'i at Mānoa Committee on Human Studies. The study was approved by both groups, which included a waiver of documentation of consent based on the nature of the survey, because the study was determined to pose no more than minimal risk to the subjects. The waiver provided the ability to have the study conducted without additional risks of breaches of confidentiality when contacting individuals to participate in and consent to the study.

After review and approval of the study, the investigators were provided access to the list of active NAPNAP members nationally. Subsequently, an e-mail providing details about the study and a link to the study's REDCap survey was sent out by the NAPNAP organization on November 11, 2016. The survey remained