



Published in final edited form as:

*J Emerg Nurs.* 2009 September ; 35(5): 402–405. doi:10.1016/j.jen.2007.10.018.

## Are Pediatric Emergency Department Nurses Delivering Tobacco Cessation Advice to Parents?

Leslie Deckter<sup>\*</sup>, E. Melinda Mahabee-Gittens, M.D., M.S.<sup>\*\*</sup>, and Judith S. Gordon, Ph.D.<sup>§</sup>

<sup>\*</sup>College of Medicine, University of Cincinnati, Cincinnati, Ohio

<sup>\*\*</sup>Division of Emergency Medicine, Cincinnati Children's Hospital Medical Center, Cincinnati, OH

<sup>§</sup>Oregon Research Institute, Eugene, Oregon

### Abstract

**Introduction**—Due to the adverse health effects of second hand smoke exposure in children, pediatric nurses (RN) have frequent encounters with parents who smoke. RNs have a unique opportunity to provide tobacco cessation counseling to parental smokers during their child's emergency department (ED) or hospital visit. The purpose of the study was to assess pediatric RN's levels of knowledge, attitudes, and behaviors regarding provision of tobacco cessation advice to parents who smoke.

**Methods**—An anonymous electronic self-administered survey of current tobacco cessation practices and attitudes was sent to ED RNs (N=130) at a tertiary care pediatric hospital in Ohio.

**Results**—A total of 87 (67%) of RNs completed the survey. Approximately 22% of respondents indicated that they assess parental smoking status; 14% encouraged parents who smoke to quit; even fewer indicated that they provided specific counseling or assistance to their patient's parents. Perceived barriers to delivering tobacco cessation counseling included parent resistance, parent complaints, parent anger, and lack of parent materials. Over 60% agreed that they should learn new ways to help parents quit and advise tobacco-using parents to quit, and that RNs can be effective in helping parents quit.

**Conclusions**—Pediatric Emergency Department nurses are unlikely to engage in tobacco cessation activities, but express interest in learning new ways to help patients' parents quit smoking. Future education could promote tobacco cessation advice and assistance, thus improving the health of parents and patients in the pediatric setting.

### INTRODUCTION

It is estimated that approximately 43% of children under the age of five, and 22% of infants and toddlers under the age of 18 months are exposed to Environmental Tobacco Smoke (ETS). The health effects of ETS exposure are especially severe in children. ETS exposure results in 150,000–300,000 new cases of bronchitis and pneumonia in children aged less

---

Correspondence: Leslie Deckter, College of Medicine, University of Cincinnati Center; Tel (513) 349-1018; Fax (513) 984-1828; decktela@email.uc.edu.

**Disclosure:** None

than 18 months with 7,500–15,000 annual hospitalizations. ETS is also associated with 8,000–26,000 new pediatric asthma cases annually.<sup>1,2</sup>

When nurses (RNs) are caring for a child with an illness that may have been caused or exacerbated by ETS exposure, they are given the unique opportunity to both educate parents about the health effects of ETS on their child and provide tobacco-using parents with tobacco cessation advice. Given that over 115 million emergency department patients are treated annually in the US and that many of these patients have no regular source of primary care, and up to a 48% prevalence of smokers, the ED may represent an important venue through which tobacco cessation counseling should be provided.<sup>3–7</sup> Emergency department visits and hospitalizations for respiratory related illnesses represent a “teachable moment” when parental smokers can be motivated to quit smoking.<sup>8</sup> There may be higher parental motivation in this setting since the child’s hospitalization may make parents concerned about the effects of their smoking on their child’s health, and there are already a number of messages discouraging smoking in the hospital environment.<sup>9</sup>

Health care practitioners are encouraged to take advantage of clinical opportunities in an effort to meet the tobacco-related objectives of Healthy People 2010.<sup>10</sup> The Clinical Practice Guideline, *Treating Tobacco Use and Dependence* suggests that patients who use tobacco should receive the “5 A’s”: Ask about tobacco use, Advise to quit, Assess willingness to attempt quitting, Assist in quit attempt, and Arrange follow-up.<sup>11</sup>

Studies of RN tobacco cessation activities in the primary care setting have demonstrated that although the majority of nurses feel positively about assisting patients in quitting, few do so on a routine basis.<sup>12–15</sup> In addition, RNs report lack of training and time, limited access to materials, and lack of incentives as perceived barriers to giving tobacco cessation advice.<sup>12,13</sup> The purpose of this study was to survey ED nurses’ attitudes and behaviors regarding delivering parental tobacco cessation advice in a pediatric hospital setting.

## METHODS

A 21-item questionnaire designed to assess a variety of aspects of tobacco control practices and attitudes was sent via e-mail to all ED RNs (n=130) at Cincinnati Children’s Hospital Medical Center (CCHMC). CCHMC is an urban-based, tertiary care center with approximately 85,000 annual ED visits and over 25,000 annual admissions. Participants were recruited for a total of 3 months starting in June 2007. The questionnaire items were adapted from similar surveys used in previous studies.<sup>16,17</sup> The questionnaire consisted of eight items assessing current tobacco cessation behaviors (based on the “5 A’s” model), six items regarding attitudes toward providing tobacco cessation services to parents, and 11 items measuring barriers to providing tobacco interventions. A \$5 department store gift certificate was offered upon completion. A total of three e-mail requests were sent.

Categorical variables were analyzed by chi-square tests or Fischer’s Exact tests and continuous variables were analyzed with two-tailed t-tests for correlation. Results were interpreted in a two-tailed manner and were considered statistically significant if p was <0.05.

## RESULTS

### Response Rate and Demographics

Out of a total of 130 RNs, 87(66.9%) responded. The majority of respondents were female (85.1%). The average age (SD) was 34.56 (8.15) years old; 75 (86.2%) were Caucasian, 3 (3.4%) were African American, and 9 (10.4%) were some other race, or race was not specified. The majority of subjects (57%) had been in practice for over 5 years. Forty eight percent reported that they had never smoked, 25% said they had experimented with smoking, 11.5% were former smokers, and only 4.6% reported being regular or occasional smokers. The vast majority, 76 (87.4%) had never used smokeless tobacco.

### Tobacco Cessation Behaviors

Approximately 22% of respondents indicated that they included a question regarding parental smoking status, 17% documented parent tobacco use on the pediatric chart, and 14% reported that they encouraged parents who smoke to quit. Even fewer respondents indicated that they provided specific counseling or assistance to their patient's parents interested in quitting. For example, 85% of respondents reported that they had never helped parents to set a quit date, and 72% reported that they had never given self-help materials to assist in tobacco cessation. Further, no respondent had ever recommended pharmacotherapy (see Table 1).

### Attitudes and Barriers

Seventy-nine percent of respondents indicated that they were somewhat to very interested in learning more effective techniques to help parents quit smoking; 69% reported that RNs should advise parents to quit and; 62% reported that RNs can be effective in helping patients' parents to quit smoking.

Respondents reported that "parent resistance/complaints," "parent anger," and "lack of parent materials" were the three most significant obstacles to providing tobacco cessation interventions to their patients' parents (see Table 2).

### Predictors of Attitudes and Behaviors

No statistical differences were found between age of respondent, number of years in practice, or smoking status to: the frequency of asking if the parent's child is exposed to ETS, asking about tobacco use, interest in learning new ways to help parents quit smoking, or feeling prepared to assist parents in quitting smoking.

## DISCUSSION

The findings from the present study indicate that even though the vast majority of RNs agree that tobacco cessation counseling should be a part of their care plan with parents who smoke, very few consistently provide tobacco cessation advice or assistance. These results were consistent with previous studies conducted with primary care RNs.<sup>12-15</sup> While close to one quarter of respondents ask parents about tobacco use, only 14% always advise parents to quit, and less than 5% always provide assistance in quitting. In contrast to studies with

physicians,<sup>18–20</sup> our sample cited parent resistance, parent anger, and lack of tobacco cessation materials as the most significant barriers to routine provision of tobacco cessation interventions.

Our study has several potential limitations. Our study population was a convenience sample of RNs collected in an urban, Midwest ED setting. In addition, the enrollment rate in our study was 65% of all potentially eligible subjects, thus the views expressed may not be representative of all pediatric ED RNs.

In conclusion, most RNs in our study expressed positive attitudes about the power of health professionals to help parents with the cessation quitting process. Many wish to incorporate these activities into practice, but few adequately do so. Given the perceived barriers of parent response to providing counseling, educational programs that include effective counseling techniques need to be developed and tested. Training modules, including information on Motivational Interviewing, may help RN's feel more confident in their ability to bring up tobacco cessation and get positive responses from parents.<sup>21,22</sup> This type of education could promote tobacco cessation advice and assistance, thus improving the health of parents and patients in the pediatric setting.

## References

1. U.S. Department of Health and Human Services. The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2006. p. 257-420. Available from <http://www.surgeongeneral.gov/library/secondhandsmoke/report/chapter6.pdf>
2. United States Environmental Protection Agency. Respiratory Health Effects of Passive Smoking: Lung Cancer and Other Disorders. Office of Research and Development; Washington, D.C: Dec. 1992 EPA/600/6-90/006F[cited 2006 Sep 27]. Available from [http://oaspub.epa.gov/eims/eimscomm.getfile?p\\_download\\_id=36793](http://oaspub.epa.gov/eims/eimscomm.getfile?p_download_id=36793)
3. McCaig, L.; Ly, N. National Hospital Ambulatory Medical Care Survey: 2000 Emergency Department Summary: Advance Data from Vital and Health Statistics: No. 326. Hyattsville, MD: National Center for Health Statistics; 2002.
4. Lowenstein SR, Koziol-McLain J, Thompson M. Behavioral risk factors in emergency department patients: a multisite survey. *Acad Emerg Med.* 1998; 5:781–7. [PubMed: 9715239]
5. Mahabee-Gittens M. Smoking in parents of children with asthma and bronchiolitis in a pediatric emergency department. *Pediatr Emerg Care.* 2002; 18:4–7. [PubMed: 11862128]
6. O'Brien GM, Stein MD, Zierler S, Shapiro M, O'Sullivan P, Woolard R. Use of the ED as a regular source of care: associated factors beyond lack of health insurance. *Ann Emerg Med.* 1997; 30:286–91. [PubMed: 9287889]
7. Baker DW, Stevens CD, Brook RH. Regular source of ambulatory care and medical care utilization by patients presenting to a public hospital emergency department. *JAMA.* 1994; 271:1909–12. [PubMed: 8201734]
8. Stevens VJ, Hollis JF. Preventing smoking relapse, using an individually tailored skills-training technique. *J Consult Clin Psychol.* 1989; 57(3):420–424. [PubMed: 2738215]
9. Winickoff JP, Hillis VJ, Palfrey JS, Perrin JM, Rigotti NA. A smoking cessation intervention for parents of children who are hospitalized for respiratory illness: the stop tobacco outreach program. *Pediatrics.* 2003; 111(1):140–5. [PubMed: 12509567]

10. U.S. Department of Health and Human Services. With Understanding and Improving Health and Objectives for Improving Health. 2. Vol. 2. Washington, D.C: U.S. Government Printing Office; Nov. 2000 Healthy People 2010.
11. Fiore, MC.; Bailey, WC.; Cohen, SJ.; Dorfman, SF.; Goldstein, MG.; Gritz, ER., et al. Treating Tobacco Use and Dependence. Clinical Practice Guideline. Rockville, MD: US Department of Health and Human Services, Public Health Service; 2000.
12. Chan SS, Sarna L, Wong DC, Lam TH. Nurses' tobacco-related knowledge, attitudes, and practice in four major cities in China. *J Nurs Scholarsh*. 2007; 39(1):46–53. [PubMed: 17393965]
13. Nagle A, Schofield M, Redman S. Australian nurses' smoking behaviour, knowledge and attitude towards providing smoking cessation care to their patients. *Health Promot Int*. 1999; 14(2):133–144.
14. Sarna L, Brown JK, Lillington L, Wewers ME, Brecht ML. Tobacco-control attitudes, advocacy, and smoking behaviors of oncology nurses. *Oncol Nurs Forum*. 2000; 27(10):1519–28. [PubMed: 11103372]
15. Braun BL, Fowles JB, Solberg LI, Kind EA, Lando H, Pine D. Smoking-related attitudes and clinical practices of medical personnel in Minnesota. *Am J Prev Med*. 2004 Nov; 27(4):316–322. [PubMed: 15488362]
16. Gordon JS, Andrews JA, Lichtenstein E, Severson HH, Akers L, Williams C. Ophthalmologists' and optometrists' attitudes and behaviors regarding tobacco cessation intervention. *Tobacco Control*. 2002; 11(1):84–85. [PubMed: 11891378]
17. Albert DA, Severson HH, Gordon JS, Ward A, Andrews JA, Sadowsky D. Tobacco Attitudes, Practices, and Behaviors: A Survey of Dentists Participating in Managed Care. *Nicotine Tob Res*. 2005 Apr; 7(Supp 1):S9–S18. [PubMed: 16036273]
18. Abdullah AS, Rahman AS, Suen CW, Wing LS, Ling LW, Mei LY, et al. Investigation of Hong Kong Doctors' Current Knowledge, Beliefs, Attitudes, Confidence and Practices: Implications for the Treatment of Tobacco Dependency. *J Chin Med Assoc*. 2006; 69(10):461–471. [PubMed: 17098670]
19. Soto Mas FG, Papenfuss RL, Jacobson HE, Hsu CE, Urrutia-Rojas X, Kane WM. Hispanic physicians' tobacco intervention practices: a cross-sectional survey study. *BMC Public Health*. 2005; 5:120. [PubMed: 16287500]
20. Physician Behavior and Practice Patterns Related to Smoking Cessation conducted by the Center for Workforce Studies at the Association of American Medical Colleges on behalf of the American Legacy Foundation®. 2007-08-18
21. Miller, WR.; Rollnick, S. Motivational interviewing: preparing people for change. 2. New York: Guilford Press; 2002.
22. Resnicow K, DiIorio C, Soet JE, Borrelli B, Hecht J, Ernst D. Motivational interviewing in health promotion: it sounds like something is changing. *Health Psychology*. 2002; 21(5):444–451. [PubMed: 12211511]

**Table 1**

Tobacco Cessation Behaviors of RNs based on 3 of the 5As

Behavior		N	Mean <sup>I</sup>	SD
<b>Ask</b>	Identify	85	2.65	1.11
	Flag	85	2.31	1.19
<b>Advise</b>	To Quit	81	2.19	1.11
<b>Assist</b>	Discuss Pharmacotherapy	87	0	N/A
	Encourage Parents to call Quitline	81	1.23	0.60
	Fax consent to Quitline	81	1.04	0.25
	Encourage Parents to set a Quit Date	81	1.11	0.39
	Give Self-Help Materials about Quitting to Parents	81	1.27	0.55

<sup>I</sup>Scale of 1 (never done) to 5 (always done).

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

**Table 2**

## Barriers to Providing Tobacco Cessation Activities

<b>Barrier</b>	<b>N</b>	<b>Mean<sup>I</sup></b>	<b>SD</b>
<b>Patient resistance/complaints</b>	79	4.05	1.21
<b>Parent anger</b>	79	3.91	1.20
<b>Lack of parent materials</b>	79	3.72	1.12
<b>Lack of referral resources</b>	73	3.67	1.07
<b>Lack of training in tobacco cessation</b>	78	3.60	1.12
<b>Patient disinterest</b>	79	3.49	1.09
<b>Amount of time required</b>	79	3.49	1.09
<b>Concerns about effectiveness</b>	79	3.23	1.25
<b>Fear that this will change my relationship with the parent</b>	79	2.89	1.43
<b>Resistance by MDs</b>	78	1.95	1.08

<sup>I</sup> Scale of 1 (not a large barrier) to 5 (a large barrier).