

LETTER TO THE EDITOR

Asthma camps for childrenLaura A. Nabors, PhD¹, Meredith Mason, MSW¹, and Jonathan A. Bernstein, MD²

¹Health Education and Promotion Program, School of Human Services, College of Education, Criminal Justice, and Human Services, University of Cincinnati, Cincinnati, OH, USA and ²Division of Allergy and Immunology, Department of Internal Medicine, College of Medicine, University of Cincinnati, Cincinnati, OH, USA

Asthma is a chronic health condition that can have a negative impact on children's quality of life, social and emotional functioning and health [1–3]. Children with asthma may feel conspicuous or isolated in school and in other community settings when they need to administer inhalers to control asthma symptoms [4]. If children are not around peers with asthma they may experience feelings of isolation related to feeling different from other children in their classroom or neighborhood [5]. Some also may experience low self-esteem related to feelings of isolation and sadness due to coping with asthma. Therefore, asthma camps are an excellent venue for addressing feelings of isolation and anxiety experienced by children with asthma through education and support programs designed to improve asthma self-management, reduce feelings of illness-related anxiety and enhance coping skills.

The recent article by Elliott et al. [6] published in the Journal of Asthma addresses the important issue of using sports camps to identify children with asthma. Once asthma is identified, children can then benefit from education and other support programs provided at the camps. We agree that these settings as well as summer camps in general are ideal for identifying ways to improve medication use and overall asthma management [2,3].

Participating in educational and peer sessions at camp has the potential to improve children's self-confidence in their abilities to manage their asthma. Alaniz and Nordstrand examined an educational program for adolescents attending a camp [7]. Their intervention was a 6-h educational program, aimed at improving knowledge about asthma. Adolescents reported increased efficacy for asthma management in several situations at the end of camp. Specifically, they reported better asthma self-management skills if they felt angry or afraid or were experiencing problems while exercising or visiting the doctor's office.

Nicholas and colleagues found that children and adolescents (ages 7–15 years) indicated improved coping with their asthma after camp [8]. In this study, camp members who

received asthma education included children with and without asthma. Interestingly, children with asthma reported they received improved support from their peers without asthma who had developed a greater understanding of asthma by the end of camp. Other researchers have reported that children with asthma experienced greater peer support after attending summer camps with other children who also have asthma [9,10]. Thus, cultivating a positive atmosphere where there is ample opportunity for peer contact is an excellent avenue for children with asthma to gain support from peers at camp regardless of whether or not they also have asthma [9]. Berry and Rabian [11] assessed the impact of asthma camps on children with asthma, where there were educational groups on disease management, and found that these children reported lower anxiety levels after attending camp. These findings are consistent with other studies that reported reduced feelings of worry related to having asthma after participating in asthma camps [8,10].

In addition to providing support for youth, medical education sessions at camps may be a good forum for collecting information on children's ideas about ways to improve their asthma management. Penza-Clyve, Mansell and McQuaid assessed children's (ages 9–15) views about barriers to adhering to their medical regimen and ideas for improving their asthma management during focus groups conducted at a camp [12]. Children reported several barriers to asthma management including being embarrassed when using inhalers around friends and limited accessibility to their medications during the school day. Children also generated ideas for improving their asthma management, such as using reminder notes (e.g. sticky notes), keeping their inhalers with them at all times, and having a "just do it" attitude to realize that asthma management was a critical component of their daily activities. Medical staff could then utilize this information to develop interventions to improve medical education to directly address children's needs and build upon successful strategies that were currently being implemented to optimize their asthma management. Through observation and practice, the physician can also gain important knowledge on how to improve the child's medication adherence over the course of camp. Sharing this information with the child's primary care physician can potentially yield long-term health benefits for the child.

Correspondence: Laura Nabors, Mail Location 0068, Health Education and Promotion Program, School of Human Services, College of Education, Criminal Justice, and Human Services, University of Cincinnati, Cincinnati, OH 45221-0068, USA. E-mail: naborsla@ucmail.uc.edu

A resource for physicians and parents interested in learning about camp experiences is the Consortium of Children's Asthma Camps [see <http://asthmacamps.org>]. This group assists in coordination of asthma camps across the country, with goals to provide children with asthma summer camp experiences which allow them to socialize with other asthmatic children and whenever possible participate in educational sessions to promote improved asthma management. Well-designed studies that implement interventions at summer camps to improve asthma self-management skills will further enhance the existing scientific literature. However, the current evidence supports using the summer camp venue to improve educational interventions that can maximally benefit children in terms of knowledge gained, improving emotional functioning and feelings of support from others, and improving self-confidence for managing their asthma.

Declaration of interest

Jonathan A. Bernstein is Editor in Chief of the Journal of Asthma, an investigator or sub-investigator for asthma studies (BI, GSK, Merck, Forest, AZ, Teva, Medimmune, Genentech, Novartis), co-Editor of the book *Clinical Asthma: Theory and Practice* and speaker for Teva. He is a member of the AAAAI board of directors. The other authors have no interests to declare.

References

1. McPherson AC, Redsell SA. Factors affecting children's involvement in asthma consultations: a questionnaire survey of general

practitioners and primary care nurses. *Prim Care Respir J* 2009;18: 15–20.

2. DuPlessis-Erickson C, Spett PL, Stoltzfus-Mullett S, Jensen C, Bisson-Belseth S. The healthy learner model for student chronic condition management – Part II: the asthma initiative. *J Sch Nurs* 2006;22:319–329.
3. García-Walker V. Factors related to emotional responses in school-aged children who have asthma. *Iss Ment Health Nurs* 2012;33: 406–429.
4. Stewart M, Letourneau N, Masuda JR, Anderson S, Cicutto L, McGhan S, Watt S. Support needs and preferences of young adolescents with asthma and allergies: 'Just no one really seems to understand'. *J Pediatr Nurs* 2012;27:479–490.
5. Letourneau N, Stewart M, Masuda JR, Anderson S, Cicutto L, McGhan S, Watt S. Impact of online support for youth with asthma and allergies: Pilot study. *J Pediatr Nurs* 2012;27:65–73.
6. Elliott JP, Marcotullio N, Skoner DP, Lunney P, Gentile DA. An asthma sports camp series to identify children with possible asthma and cardiovascular risk factors. *J Asthma* 2013 [Epub ahead of print].
7. Alaniz KL, Nordstrand J. Camp superteens: an asthma education program for adolescents. *Am J Matern/Child Nurs* 1999;24: 133–137.
8. Nicholas DB, Williams M, MacLusky IB. Evaluating group work intervention for children and adolescents with asthma. *Soc Work With Groups* 2009;32:209–221.
9. Rhee H, McQuillan BE, Belyea MJ. Evaluation of a peer-led asthma self-management program and benefits of the program for adolescents and peer leaders. *Respir Care* 2012;57:2082–2089.
10. Nesvold JH, Fena PG, Herman J. Consortium on Children's Asthma Camps Board of Directors. Assessing the value of children's asthma camps. *J Asthma* 2006;43:273–274.
11. Briery BG, Rabian B. Psychosocial changes associated with participation in a pediatric summer camp. *J Pediatr Psychol* 1999; 24:183–190.
12. Penza-Clyve SM, Mansell C, McQuaid EL. Why don't children take their asthma medications? A qualitative analysis of children's perspectives on adherence. *J Asthma* 2004;41:189–197.