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Feature Article

Ethical Principles as a Guide in Implementing Policies for the Management of Food Allergies in Schools

Jason Behrmann, MSc

Food allergy in children is a growing public health problem that carries a significant risk of anaphylaxis such that schools and child care facilities have enacted emergency preparedness policies for anaphylaxis and methods to prevent the inadvertent consumption of allergens. However, studies indicate that many facilities are poorly prepared to handle the advent of anaphylaxis and policies for the prevention of allergen exposure are missing essential components. Furthermore, certain policies are inappropriate because they are blatantly discriminatory. This article aims to provide further guidance for school health officials involved in creating food allergy policies. By structuring policies around ethical principles of confidentiality and anonymity, fairness, avoiding stigmatization, and empowerment, policy makers gain another method to support better policy making. The main ethical principles discussed are adapted from key values in the bioethics and public health ethics literatures and will be framed within the specific context of food allergy policies for schools.

Keywords: food allergy; schools; children; policies; decision making; ethics

INTRODUCTION

The industrialized world is witnessing a growing incidence of allergy (Bousquet et al., 2004; Holgate, 1999; Isolauri, Huurre, Salminen, & Impivaara, 2004). Allergy is a chronic disease wherein the immune system becomes hyper-responsive (also described as hypersensitive) to common substances in the environment, such as allergenic components in pollen, dust, and animal dander. Typical allergic reactions produce watery eyes, nasal congestion, and skin irritations such as hives. However, certain allergic individuals experience severe allergic reactions that carry a significant risk of mortality. Of particular concern are allergic responses that induce asthma or anaphylactic reactions. Anaphylaxis is a systemic allergic reaction resulting in extreme cardiac and respiratory impairment and is typically fatal if medical attention is not sought immediately.

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One major category of allergic disease is food allergy. Food allergies are prevalent in the industrialized world and it is estimated that 8% of children under the age of 3 have a food allergy (Bock, 1987), with approximately 1.5% of the population being allergic to peanuts (Kagan et al., 2003). Studies also indicate that the incidence of food allergic disease is increasing dramatically (Mullins, 2007; Sicherer, Munoz-Furlong, & Sampson, 2003). The most common allergenic foods include peanuts, nuts, egg, milk, soy, and fish; yet, hypersensitivities are also observed for a variety of other food products, including many fruits, vegetables, food coloring agents, and spices (Sicherer, 2002).

Food allergies have certain particularities relative to other forms of allergic disease. Therapeutic interventions of pharmacotherapy and immunotherapy provide treatment for most forms of allergy. These therapeutic options are typically not applicable with food allergy, where the primary means to avoid a food reaction is to eliminate the allergenic substance from one's diet (Sicherer, 2001). Furthermore, the risk of experiencing a severe reaction or anaphylaxis is generally higher with allergic reactions to food (Alves & Sheikh, 2001). Another characteristic of food allergy is that it is particularly prevalent in children and adolescents (Sicherer, 2001).

The widespread incidence of food allergy in children, and thus risk of anaphylaxis, poses a significant challenge to those individuals (i.e., parents, educational, and health professionals) that oversee their well-being. A large amount of responsibility in the management of severe food allergic reactions has fallen on administrators and health professionals of child care settings, such as schools and daycares, locations where reactions to food commonly occur. Eighty-four percent of food allergic children will experience an allergic reaction while at school (Powers, Bergren, & Finnegan, 2007), and one quarter of *initial* allergic reactions to food arise in the school environment (Sicherer, Furlong, DeSimone, & Sampson, 2001). The presence of at least one food allergic student within a child care setting or school appears to be nearly inevitable, with one American study finding that 55% of elementary schools surveyed reported having 10 or more affected students (Rhim & McMorris, 2001). The high number of food allergic students has resulted in numerous

schools implementing policies that aim to prevent allergic reactions and reduce the risk of mortality should an anaphylactic reaction occur.

To aid schools and child care settings in developing appropriate policy responses, several allergy medical organizations and experts have published guidelines on preventative strategies for food allergen exposure and anaphylaxis (American Academy of Pediatrics Committee on School Health: Guidelines for urgent care in school, 1990; Anaphylaxis in schools and other childcare settings. AAAAI Board of Directors, 1998; Baumgart et al., 2004; Hay, Harper, & Moore, 2006; Sicherer, 2001; The treatment in school of children who have food allergies. Committee report from the Adverse Reactions to Food Committee of the AAAI, 1991; The use of epinephrine in the treatment of anaphylaxis. AAAI Board of Directors, 1994¹—hereon cited as simply, "Guidelines"). These guidelines typically describe factors such as emergency action plans for anaphylactic reactions, provide templates of medical information files for allergic students, and propose guidelines on how to minimize the risk of accidental ingestion of problematic foods. Although such recommendations have been available for many years, studies demonstrate various (often limited) degrees of compliance, much heterogeneity in the application of policies, and a highly variable ability of many school officials to respond appropriately to severe food reactions (Powers et al., 2007; Rankin & Sheikh, 2006; Rhim & McMorris, 2001). Furthermore, certain policies used in schools are arguably unethical and place undue psychosocial stress on food allergic students. For example, some policies inadvertently cause food allergic students to be separated from "normal" students, thus encouraging stigmatization and even discrimination (Marklund, Wilde-Larsson, Ahlstedt, & Nordström, 2007). These are significant problems. If schools and child care settings are to fully address the needs of food allergic students, they must use a more thorough application of guidelines, have better emergency preparedness, and avoid stigmatizing policies.

This article provides further guidance for school nurses to take a lead in the oversight and protection of food allergic children. Many school nurses likely face difficulties when determining which strategies will best address the needs of students. Indeed, depending on factors such as student population, age, variety of food allergy, and availability of food services, food allergy policies will

have to be adapted to meet the specific contexts of educational facilities. How can this be done and how is one to determine whether the resulting policies are most appropriate? Certain ethical principles can aid school nurses in this process. By basing policy decisions on sound ethics, school nurses and administrators gain a valuable tool that can help them in determining which policies are best for their institution. This article will present the ethical principles of confidentiality and anonymity, the fair distribution of benefits and burdens, and empowerment. Key principles in the public health ethics literature will also be presented. These principles are placed within context of common food allergy policies where through ethical reasoning, good policies can be made *better* and the appropriateness of policies can be identified relative to alternatives.² For example, paying attention to the principle of anonymity can help prevent the enactment of stigmatizing policies, while attention to the fair distribution of benefits can guide decision making in determining whether to ban certain food ingredients from a cafeteria menu. Before commencing the discussion on how to integrate ethical principles into food allergy policies, it will be helpful to have an overview of common recommendations and policies and the key problems observed with the implementation of such policies.

COMMON GUIDELINES AND POLICIES FOR THE MANAGEMENT OF FOOD ALLERGIES IN CHILD CARE SETTINGS

Several guidelines and recommendations have been proposed by various experts and committees, including pediatricians specializing in food allergy as well as the American Academy of Allergy, Asthma, and Immunology (as previously cited: Guidelines). Most guidelines provide information on two main issues for food allergic students. One topic pertains to emergency preparedness, which refers to how facilities ready themselves before a severe food reaction occurs in a child and what child care administrators are to do immediately following the onset of an anaphylactic reaction (Emergency Action Plans for food allergy are available online; see Young, Muñoz-Furlong, & Sicherer, 2009, for a recent example). The other main issue is one of prevention, where strategies

are provided on how child care facilities can minimize the risk of accidental consumption and exposure to food allergens.

The first step recommended for emergency preparedness is for facilities to maintain medical information files on allergic students that are readily accessible to school health professionals. The American-based Food Allergy and Anaphylaxis Network provided a template medical file that is endorsed by several experts (Muñoz-Furlong, 2003; Powers et al., 2007; Sicherer, 2001). The template—which is to be completed in conjunction with the child's primary care provider—contains sections that allow for listing of the child's allergic triggers and the medication to be administer depending on the degree of allergic reaction. Also present are emergency contacts for the child and diagrams on how to administer epinephrine (adrenaline) if an anaphylactic reaction should occur. To clarify, the administration of epinephrine is the first line of defense in countering anaphylaxis prior to seeking medical attention at a health care facility. The general function of health records is to give health professionals at educational facilities the opportunity to assess periodically the particular needs of food allergic students. These documents also provide a resource that school nurses and administrators can turn to in the advent of an allergic reaction. The availability of epinephrine in child care facilities and educational settings is essential in strategies aimed at reducing the risk of fatalities from severe allergic reactions. Recommendations of multiple professional organizations (as previously cited: Guidelines) state that epinephrine should be easily accessible and stored in a known location. Staff members that commonly work with food allergic students should be trained in identifying an allergic reaction and know how to administer epinephrine when necessary. Therefore, emergency preparedness for severe food reactions can be viewed as a three-component initiative: (a) accessible medical information files on allergic children, (b) availability of epinephrine in the advent of an anaphylactic reaction, and (c) training of staff in the appropriate administration of epinephrine.

The underlying cause of severe food reactions is the inadvertent consumption by individuals of food not known to contain a problematic allergen. Policies that have as their goals the prevention of food allergy reactions focus on preventing children from consuming food that is unfamiliar to them.

One common method is to enforce strict “no food sharing” policies that prohibit the sharing (or trading) among students of food, utensils, and food containers (Baumgart et al., 2004; Hu, Kerridge, & Kemp, 2004). When food services, namely cafeterias, are available at a school, efforts are to be made to ensure the safety of the food provided and that allergen-free alternatives are available. To this end, it is recommended that food service staff be educated in methods to avoid the cross-contamination of prepared meals through the proper washing of surfaces and utensils (Baumgart et al., 2004). Food service staff should also be educated in the reading of food labels in order to identify the presence of allergens (Rhim & McMorris, 2001). Other common strategies in preventing the inadvertent consumption of allergen-containing food are for facilities to restrict the consumption of certain foods to specific areas or to ban the presence of some foods altogether. Such methods can include having a designated “allergen-free” table in the cafeteria where products that contain common allergens, like peanuts, are not to be consumed. It should be noted that “allergen-free” does not imply a dining area that is only of use for food allergic children. Rather, the area should be available to all children that choose not to consume common allergens within that space. Many experts note that administrators of schools and child care facilities must be vigilant to ensure that the presence of a food allergy does not result in the segregation of the food allergic child from other children (as previously cited: Guidelines). Although children with food allergy have a serious medical condition, their allergy should not result in their exclusion from events, such as field trips, or in their isolation during meal times.

With regard to food bans, most experts do not endorse such policies (Baumgart et al., 2004; Hu & Kemp, 2005). Many argue that broad food bans are largely ineffective, provide a false sense of security, and are burdensome on families that do not have food allergic children (Sicherer, 2001). Some studies have demonstrated that peanut bans in schools do decrease substantially the presence of peanuts in school lunches (Banerjee et al., 2007). The complete elimination of peanuts, however, appears to be next to impossible. Despite criticisms, policies for the banning of certain foods from schools are relatively widespread (Weiss, Muñoz-Furlong, Furlong, & Arbit, 2004). In settings with particularly young children that are

incapable of objectively selecting the food they eat, such as preschools, food bans are recommended for major allergens (Baumgart et al., 2004). The general principle in preventing severe food reactions is to prevent the inadvertent consumption of the allergen.

It should also be noted that additional policies not related to eating habits have been developed to prevent severe food reactions. Anaphylactic reactions have been induced in children due to arts and crafts activities and science projects (Sicherer et al., 2001). In these situations, allergenic components were part of the project (e.g., the use of peanut butter in the making of birdfeeders). It is recommended that schools and child care facilities avoid the use of common allergenic compounds during such learning activities.

A curious fact concerning food allergic children is that their medical condition can make them the target of bullying and harassment. There have been documented incidents of fellow students, perhaps not understanding the seriousness of food allergies, forcing allergic students to consume allergen-containing food, with dire consequences (Muñoz-Furlong, 2003). Because of this threat, some experts recommend the promotion of anti-bullying policies as an essential component in the prevention of accidental allergen exposure (Baumgart et al., 2004; Weiss et al., 2004). Furthermore, most relevant guidelines strongly endorse the need for the education of staff and *all* students on the issue of food allergy (Baumgart et al., 2004). Only once administrators, teachers, and students fully understand the severity of food allergy, and the best methods for the prevention of severe reactions, can precautionary policies be enforced, appreciated, and thus effective.

“There have been documented incidents of fellow students, perhaps not understanding the seriousness of food allergies, forcing allergic students to consume allergen-containing food, with dire consequences.”

To summarize, efforts to prevent severe food reactions must go beyond discussions about eating habits to also include broad education initiatives concerning food allergy, the promotion of

respect for food allergic children (e.g., by preventing bullying and harassment), and the avoidance of allergenic compounds in school activities.

WEAKNESSES OBSERVED IN POLICIES FOR THE MANAGEMENT OF FOOD ALLERGIES IN CHILD CARE SETTINGS

Although the availability of guidelines for managing food allergy have provided valuable resources for administrators and school nurses, many challenges are observed when food allergy policies are executed in real-world settings. Studies conducted in the United States have shown that many schools are inconsistent in their application of guidelines and that policies vary widely among facilities (Powers et al., 2007; Rhim & McMorris, 2001; Weiss et al., 2004). Heterogeneity in policy application is not problematic per se—depending on the specificity of a given educational facility (e.g., size, variety of food allergies, the availability of food services), some policies will not apply or will need to be adapted to fit the particular needs of a given facility.

This heterogeneity becomes problematic, however, when the inconsistent application of guideline recommendations compromises an educational facility's ability to manage appropriately the risks of childhood food allergy. For example, Rhim and McMorris (2001) observed that some schools do not keep medical information files on food allergic students, thus compromising the ability of school health professionals to address the health and safety needs of these students. Furthermore, the authors noted that some schools did not keep emergency epinephrine (2% of schools surveyed), while a significant proportion (10% of schools surveyed) did not have staff trained in the administration of this life-saving drug. These observations demonstrate important gaps in emergency preparedness strategies within certain educational facilities. Similar observations have been made by Powers et al. (2007), who found that numerous schools did not have written food allergy emergency plans, and many school personnel felt unsure with regard to how and when to administer epinephrine.

The presence of gaps is also observed in policies aimed at preventing the inadvertent consumption

of food allergens. Rhim and McMorris (2001) found that while many schools offered food substitution and meal replacements in cafeterias, most did not educate food service staff on the reading of food labels to identify the presence of hidden allergens. Another problem that has been voiced by children concerning policies for the management of food allergy is that certain measures are blatantly discriminatory. In some facilities, food allergic students are required to leave the general queue to collect their meal from another location, thus branding them as distinct and different from other students (Marklund et al., 2007). Furthermore, students have complained about the poor quality of meal replacements and allergen-free alternatives provided in school (Marklund et al., 2007). The poor quality of these meals was attributed to a lack of knowledge and interest on the part of cafeteria personnel in preparing tasty allergen-free meals.

The above observations indicate that many educational facilities need to review the current strengths and weaknesses within their policies for the management of food allergy. Particular vigilance is needed to eliminate gaps in emergency preparedness and allergen avoidance policies. It also appears that a degree of poor judgment can be present during the formulation of certain policies, such as those that inadvertently promote discrimination. Ethical principles can be used to both help school nurses in their role to support administrators in decision making and provide guidance on how to make acceptable policies *better* by having them meet minimum ethical standards.

ETHICAL PRINCIPLES AS A GUIDE IN DEVELOPING FOOD ALLERGY POLICIES

Preventing severe food reactions in children is a matter of public health, and numerous resources are available that can aid officials in implementing effective public health initiatives. One resource is the 2002 publication of a code of ethics for public health (Thomas, Sage, Dillenberg, & Guillory, 2002). The first clause of this code of ethics is particularly pertinent to beginning an ethical dialogue on food allergy policies: "*Public health should address principally the fundamental causes of disease and requirements for health, aiming to prevent adverse health outcomes*" (p. 1058). This clause is

important, because in the context of schooling and child care, it means that facilities cannot permit the partial enactment of guidelines or allow for gaps in efforts to prevent anaphylaxis. If school nurses are to prevent the adverse health outcomes of food-induced anaphylaxis, they must ensure the policies are sound, robust, and follow the standards set forth by experts, even if these recommendations are not enforced through legislation. For example, school nurses must ensure that their emergency preparedness plans are complete: having epinephrine available is not sufficient if staff are not trained on how this potentially life-saving medication is to be administered; having medical information files readily available is not sufficient unless all students with food allergy are included in this registry. This first principle of public health ethics affirms that the goal of proper management of food allergy is the prevention of anaphylaxis, and thus, the complete enactment of emergency preparedness plans and avoidance policies is essential.

Another general principle that can aid school nurses and administrators in policy decisions is to pay attention to their professional and fiduciary responsibilities, that is, the trust or care relationship they have with food allergic children requiring assistance. To expand, many feminist scholars argue that our relationships with others are not impartial because they are linked to responsibilities of care for others that play a role in our daily lives (Roberts & Reich, 2002). Decision makers in public health—including school health—should thus imagine themselves as “caring parents” for members of society under their responsibility, and they should ask themselves the following question: “*what resources and level of protection would you expect if it were your food allergic child?*” The answer to this question can prove valuable in informing choices about which policies to enact within a given school or child care facility.

Confidentiality and Anonymity

Respect for confidentiality and protection of privacy are core ethical principles in health care, as well as prominent core values upheld in many social democratic societies, especially in North America and Europe. Individuals afflicted with a given ailment—something that may have a significant impact on their personal lives—have the right

to keep this fact private if they so choose. The right for individuals to choose to keep their medical needs confidential stems from both a respect for their autonomy as individuals and recognition of the very real risks that the inappropriate disclosure of health information may entail. These risks may include, among others, unjust discrimination in employment, the loss of health or life insurance coverage, and stigmatization on the basis of a particular medical condition (Deapen, 2006). Thus, it is important that sensitive health or medical information be dealt with carefully, treated as confidential, and be disclosed only to those professionals that need such personal information to protect the health of the individual. Any documentation, such as personal medical files, that are formulated during interactions with medical professionals should be secured to ensure these documents remain confidential.

The principle of confidentiality is particularly relevant for food allergic children. Interviews with children with food allergies confirm that, occasionally, their food allergy results in discrimination and stigmatization by other students, and this produces significant psychosocial stress (Marklund et al., 2007). Furthermore, being labeled as “food allergic” carries an increased risk to a child’s well-being because this can make them the target of bullying and harassment and has, already been mentioned, resulted in instances of children being force-fed food to which they were allergic (Muñoz-Furlong, 2003). Therefore, when school nurses and administrators are formulating policies for food allergy, *they must be vigilant that policies do not cause food allergic children to become identified as different from other children*. For example, having allergic children line up in a different line order to collect their meal alternatives is unacceptable. Similarly, guidelines that recommend the provision of an “allergen-free” eating area, such as peanut and milk-free cafeteria table, can be problematic. This policy would only be appropriate if food allergic students do not exclusively occupy this table. To prevent exclusion and assure anonymity of the allergic condition, policies ought to include efforts that encourage friends of the allergic student to also bring in allergen-free lunches, thus allowing for inclusion of all students. Of course, it is recommended that use of allergen-free areas not be mandatory for food allergic children (Muñoz-Furlong, 2003).

The principle of confidentiality is pertinent to food allergy policies in relation to emergency

preparedness. An essential component of emergency preparedness is the ready availability of medical information files so that school health professionals have easily at hand the information necessary to help a child should they experience an allergic reaction. However, this policy ought to be used alongside efforts that ensure these files remain confidential. Any additional staff members (e.g., secretarial or computer maintenance staff) that might view such files must also be informed that these files contain medical information and thus must be treated as confidential. After viewing a child's file, school health professionals must inform staff members that they are not to provide information found in that file to anyone else.

At times, keeping an absolute stance on anonymity may prove impractical. For example, if school administrators choose to impose a food ban, they need to inform parents of the food to be banned and the reasons for the policy. A dilemma surfaces in determining how much specific information should be divulged when informing others (parents), while maintaining confidentiality and anonymity of the affected children. Thompson and colleagues address this issue with an ethical value concerning privacy: "*Disclose only private information that is relevant to achieve legitimate and necessary public health goals*" (Thompson, Faith, Gibson, & Upshur, 2006, p. 6). By applying this principle, school nurses can help administrators inform others of food allergy and their efforts in preventing anaphylaxis without violating the privacy of food allergic children. For example, it is appropriate to inform others that an educational facility has several students with severe food allergies that carry a significant risk of anaphylaxis. Additional information, like identifying characteristics and the medical requirements of food allergic students, are irrelevant and ought not to be divulged.

Additional challenges may arise when communicating the health needs of allergic students to other children. Imagine the situation where a child unknowingly sits at an "allergen-free" table with a meal that may possibly contain allergens. Rather than inform the child that they are not permitted at the table because of the needs of a specific, identified student, the school nurse should inform school officials to explain that the student's nutritious meal might be harmful to other students *and staff* (emphasis added) at that given

table. School health professionals should then communicate to the parents or guardian of that child to consider preparing allergen-free meals as a means to ensure their child's safe inclusion at any table within the school setting.

Fair Distribution of Benefits and Burdens

Another core ethical principle is justice or fairness; that is, all individuals have equal access to resources that ensure their happiness and well-being. From a public health perspective, this implies that policy initiatives will be of broad health benefit to all applicable members of society. Fairness also implies that if policies require a certain degree of restrictions on behavior or liberties, these burdens ought not to be discriminatory and ought to be applied evenly throughout society.

The value of fairness is applicable to food allergy policies on several levels. For one, when formulating policies, administrators ought to ensure that *policies will be of benefit to all and not for only certain food allergic students*. For example, administrators should ensure that policies do not focus on a given allergen, to the exclusion of others. Peanuts are commonly scrutinized during discussions on food allergy as peanut allergy is notoriously associated with anaphylaxis (Sicherer et al., 2001). Therefore, it is common for policies to focus on peanuts and implement peanut food bans or peanut-free classrooms. However, other allergens, like milk, are also common inducers of anaphylaxis (Macdougall, Cant, & Clover, 2002). Therefore, for policies to be of equal benefit for all food allergic students, policies such as "no food sharing" ought to be favored over specific bans of one particular allergen. Furthermore, it is generally agreed that food allergy policies should be age appropriate, so that as children mature, they can and should acquire a greater responsibility in managing their allergy (Baumgart et al., 2004). However, this does not imply that food allergy policies should focus exclusively on the needs of young children while leaving those of adolescents unaddressed. Indeed, it is known that the majority of severe food reactions occur in children over the age of 5 and are especially prevalent in food allergic adolescents (Marklund et al., 2007; Muñoz-Furlong, 2003). So in applying the principle of fairness, policies ought not to benefit only young

children or assume that the needs of more mature students can be met by their own efforts. For example, school health officials should not assume that more mature, adolescent students would consistently carry emergency epinephrine and thus only provide emergency epinephrine in settings for the care of young children that are understandably less capable of upholding such a responsibility.

Additionally, when formulating food allergy policies, school nurses ought to ensure that *food allergic students have access to the same opportunities and resources as other students*. For example, it is recommended that common allergens not be included in science or art projects, therefore, permitting the participation of all students. However, this policy ought to be extended so that food products are not used as rewards for academic performance or during classroom celebrations (Muñoz-Furlong, 2003). Rather, to allow all students to participate, these items ought to be replaced with nonedible items like sports cards or colorful school materials (pens, pencils; Muñoz-Furlong, 2003). Another example pertains to allergen-elimination meals provided at school cafeterias. Food allergic students note that these meals can be of lower quality and less palatable than regular meals. Food preparation staff should be supported to ensure they are knowledgeable in preparing allergen elimination-diet meals that are of the same quality as regular meals served at the educational facility. Additionally, the meals ought not to be provided at extra costs to the allergic child (Hay et al., 2006). To avoid possibilities for stigmatization, the meals could be demarcated subtly with a small sticker or pen mark placed on the cellophane wrapping or at the edge of a serving plate.

Another issue of fairness pertains to the fair distribution of burdens that may arise from certain food allergy policies. In general, school nurses and administrators must ensure that policies *do not unduly burden the eating habits of certain children*. For example, food bans ought to be avoided for they can significantly compromise the daily eating habits of many children not affected by food allergy. Take the example of a broad food ban on soy, a common allergen. Such a ban will unduly burden the eating habits of children that are vegetarian or members of certain ethnic communities, where soy is a common protein replacement or staple food. However, under certain circumstances,

policies may be justified in restricting the eating habits of certain children. For example, specific food bans can be deemed appropriate in facilities with very young children that are incapable of objectively deciding which food they can consume (Baumgart et al., 2004). Determining whether restricting specific eating habits is appropriate can be resolved by applying Thompson and colleague's ethical values on restricting liberties. They state that restricting liberties is appropriate if "*the restriction is proportional to the risk of public harm and is necessary and relevant to protecting the public good*" (Thompson et al., 2006, p. 6). Thus, by applying this principle, it would be appropriate that school nurses inform administrators to apply food bans in the preschool setting where the risk for the accidental consumption of allergens is high. However, such bans might not be appropriate in a cafeteria where policies such as allergen-free dining tables and the provision of allergen-free meal alternatives are appropriate measures that do not involve restricting a child's liberties.

Empowerment

There are two ways to orient initiatives for securing the health and well-being of a community. One method, which may be overly or unreasonably paternalistic, involves the imposition of policies and regulatory efforts on others without providing alternatives or explanations as to why such rules are important. The other, arguably more ethical approach (i.e., less coercive), involves empowering people in the control of their health and well-being. Examples of empowerment include educating the public on sound health choices and the provision of resources so that people are more able to protect their well-being. The notion of empowerment is integral to the code of ethics for public health proposed by Thomas and colleagues; the fourth clause states that "*Public health should advocate for, or work for the empowerment of, disenfranchised community members, ensuring that the basic resources and conditions necessary for health are accessible to all people in the community*" (Thomas et al., 2002, p. 1058). But how do notions of empowerment apply to food allergy?

Munoz-Furlong states that empowerment of food allergic children is essential because

TABLE 1. Key Ethical Principles to Aid in Implementing Policies for Food Allergic Children

<i>Ethical Principles</i>	<i>Policy Response or Areas of Particular Vigilance</i>	<i>Examples</i>
Underlying principles	• Policies should address the fundamental causes of disease and requirements for health, aiming to prevent adverse health outcomes. • Imagine if the food allergic child was your own. What level of protection would you expect for your child?	• Enact appropriate, and complete, emergency preparedness and allergen avoidance policies
Confidentiality and anonymity	• Do policies cause a food allergic child to become distinct from others? • Are medical files confidential and do staff respect confidentiality? • Only disclose private information that is necessary for protecting health	• Do not make allergic children form a separate queue when collecting their meals • Do not disclose identifying characteristics of allergic children or their specific medical needs
Equal benefits and burdens	• Avoid unduly burdening the eating habits of certain children • Enact policies that will be of benefit to all food allergic students • Ensure food allergic students have access to the same opportunities and resources as others	• Provide allergen-free meals that are of the same quality as regular meals • Focus policies on all allergens (no food sharing), not one allergen (e.g., peanuts)
Empowerment	• Ensure the education of staff and students on allergic reactions to food • Provide resources so that food allergic children can gain further control over their health	• Take threats of bullying seriously • Encourage allergic children to carry epinephrine

“[e]mpowering a child to participate in food allergy management strategies will yield a confident child who is less likely to make mistakes or take unnecessary risks and who can rebound after an allergic reaction” (Muñoz-Furlong, 2003, p. 1654). Thus, when school health professionals are formulating policies for food allergy, an essential component should be the empowerment of all students and staff. Primary methods to achieve empowerment include the broad education of all students and faculty on food allergy, anaphylaxis, and methods to avoid food reactions (Banerjee et al., 2007; Baumgart et al., 2004; Hay et al., 2006). Other means to empower food allergic children include encouraging them to carry, and be knowledgeable in the administration of, emergency epinephrine. Of course, this will only be appropriate with older children and it does not absolve educational facilities of the responsibility for keeping their own supplies of epinephrine available. Additionally, administrators should take threats to the safety and well-being of food allergic children seriously, as would be the case with bullying and harassment. Overall, school nurses and administrators should strive to ensure that their efforts in the management of food allergy include elements of empowerment by providing children and staff with resources that will enable them to gain better control of the children’s health and well-being.

“Overall, school nurses and administrators should strive to ensure that their efforts in the management of food allergy include elements of empowerment by providing children and staff with resources that will enable them to gain better control of the children’s health and well-being.”

CONCLUSION

The industrialized world is witnessing a growing incidence of allergic disease and food allergy in children and this poses a significant challenge to public health. The main concern with food allergy is the possibility for the inducement of life-threatening anaphylactic reactions due to the inadvertent consumption of a food allergen. To address this concern, most schools have enacted policies to prepare for the sudden onset of anaphylaxis in food allergic children. Such efforts include the provision of emergency epinephrine and the training of staff in its administration. Additionally, schools and child care facilities commonly use policies that aim to prevent food allergic children from mistakenly consuming allergen-containing foods. Such efforts include

using “no food sharing” policies or the provision of “allergen-free” tables in dining areas.

Despite these efforts, numerous studies have demonstrated that many schools are ill prepared to effectively prevent severe food-induced allergic reactions. This is due to incomplete emergency preparedness plans and gaps in methods for the avoidance of food allergens. Furthermore, some policies require reform because they allow (or even encourage) the discrimination and stigmatization of food allergic children. Thus, many educational facilities need to review and reformulate their policies concerning food allergy. When doing so, school health officials and administrators should follow some basic ethical principles to guide decision making and policy development. The ethical principles of confidentiality and anonymity, the fair distribution of benefits and burdens, and empowerment can guide policy decisions for food allergy (summarized in Table 1). By using these principles, school nurses can aid administrators in policy making and gain another means to ensure that food safety policies are complete and ethical, while avoiding problems seen with discriminatory policies that place undue psychosocial stress on food allergic children. With a greater concerted effort and the endorsement of effective and ethical policies, the threat of fatalities from severe food reactions in child care settings can be made virtually nonexistent.

NOTES

1. Several of these guidelines and mission statements date from the 1990s and represent foundational policy documents on food allergy in relation to child care settings. Although they may appear dated, these documents remain relevant within current food allergy policy developments.

2. Within the United States, several national and regional laws and regulations mandate certain practice parameters and policies concerning food allergic children within the school environment (e.g., national regulations include statutes within section 504 of the Rehabilitation Act, Americans with Disabilities Act [ADA], and the Family Educational Rights Privacy Act [FERPA]). This article will not focus discussion toward such legislation, which will likely be already familiar to school nurses and administrators. Rather, this discussion aims to advance knowledge on food allergy policy developments and thus focuses on ethical frameworks, exclusively—ethics being a subject that is currently absent within the academic literature concerning food allergy.

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