



# Seizure Safe School Act



## About the Seizure Safe School Legislation

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Epilepsy is a medical condition that produces seizures affecting a variety of mental and physical functions. It is the 4<sup>th</sup> most common neurological disorder and affects people of all ages. Approximately 1 in 26 people will develop epilepsy at some point in their lifetime. Over 3.4 million Americans are currently living with epilepsy and seizures. Of the 3.4 million, there are 470,000 children living with epilepsy in the U.S. Despite the prevalence, epilepsy is still highly misunderstood by the public and stigmatized. For students living with epilepsy, it is important that schools are well-equipped with the tools necessary to provide a safe and enriching environment.

### **The are 4 key components to the Seizure Safe School legislation:**

- Requiring school personnel to complete a seizure recognition and first-aid response training;
- Mandating that the Seizure Action Plan is made part of the student's file and made available to school personnel and volunteers responsible for the student;
- Ensuring that any FDA-approved medication prescribed by the treating physician is administered to the student living with epilepsy; and
- Educating and training students about epilepsy and first-aid response.

The legislation makes certain that school personnel, including nurses, teachers, and volunteers, are not only prepared but can recognize and respond appropriately and efficiently to the student experiencing a seizure. Even more importantly, the legislation safeguards physician-directed care in the school setting allowing students to access necessary and oftentimes life-saving medication. Lastly, by bringing awareness to the entire educational community, students living with epilepsy or a seizure disorder can feel safe in school, reach their full academic potential, and build meaningful friendships without fear of being stigmatized.

## Seizure Safe School Act Model Bill Language

AN ACT relating to seizure disorders in schools.

### *Section 1:*

“Seizure Action Plan” means a written, individualized health plan designed to acknowledge and prepare for the health care needs of a student diagnosed with a seizure disorder.

### *Section 2:*

(1)(a) Beginning July 1, 2019, the board of each local public school district and the governing body of each private and parochial school or school district shall have at least one (1) school employee at each school who has met the training requirements necessary to administer or assist with the self-administration of:

1. A seizure rescue medication or medication prescribed to treat seizure disorder symptoms as approved by the United States Food and Drug Administration and any successor agency

(b) For those assigned the duties under paragraph (a) of this subsection, the training provided shall include instructions in administering:

2. Seizure medications, as well as the recognition of the signs and symptoms of seizures and the appropriate steps to be taken to respond to these symptoms

(c) Any training programs or guidelines adopted by any state agency for the training of school personnel in the health care needs of students diagnosed with a seizure disorder shall be fully consistent with training programs and guidelines developed by the Epilepsy Foundation of America and any successor organization. Notwithstanding any state agency requirement or other law to the contrary, for the purposes of this training a local school district shall be permitted to use any adequate and appropriate training program or guidelines for training of school personnel in the seizure disorder care tasks covered under this section.

(2)(a) Prior to administering a seizure rescue medication or medication prescribed to treat seizure disorder symptoms, the student’s parent or guardian shall:

1. Provide the school with a written authorization to administer the medication at school;
2. Provide a written statement from the student’s health care practitioner, which shall contain the following information:
  - a. Student’s name;
  - b. The name and purpose of the medication;
  - c. The prescribed dosage;
  - d. The route of administration;

e. The frequency that the medication may be administered; and

f. The circumstances under which the medication may be administered; and

3. Provide the prescribed medication to the school in its unopened, sealed package with the label affixed by the dispensing pharmacy intact.

(b) In addition to the statements required in paragraph (a) of this subsection, the parent or guardian of each student diagnosed with a seizure disorder shall collaborate with school personnel to create a seizure action plan. The **[STATE]** Board of Education shall promulgate administrative regulations establishing procedures for the development and content of seizure action plans.

(3)(a) The statements and seizure action plan required in subsection (2) of this section shall be kept on file in the office of the school nurse or school administrator.

(b) The seizure action plan requirement in paragraph (b) of subsection (2) of this section shall be distributed to any school personnel or volunteers responsible for the supervision or care of the student.

(4) The permission for the administration of any of the medications listed under subsection (1)(a) of this section shall be effective for the school year in which it is granted and shall be renewed each following school year upon fulfilling the requirements of subsection (2) to (4) of this section.

(5) The requirements of subsections (1) through (5) of this section shall apply only to schools that have a student enrolled who:

a. Has a seizure disorder and has a seizure rescue medication or medication prescribed to treat seizure disorder symptoms approved by the United States Food and Drug Administration and any successor agency prescribed by the student's health care provider.

### *Section 3:*

Every public school shall provide an age-appropriate seizure education program to all students on seizures and seizure disorders. The seizure education program shall be consistent with guidelines published by the Epilepsy Foundation of America and any successor organization. The **[STATE]** Board of Education shall promulgate administrative regulations for the development and implementation of the seizure education program.

### *Section 4:*

In addition to the professional development and collegial planning activities for the professional staff without the presence of students pursuant to **[STATE]** law, a minimum of one (1) hour of self-study review of seizure disorder materials shall be required for all principals, guidance counselors, and teachers each school year.

### *Section 5:*

This Act may be cited as **[Seizure Safe School Act]**, **[Seizure Smart School Act]**, **[TEEN NAME Act]**.  
(choose one)

### **Managing Students with Seizures: The Importance of School Nurses**

Designed to provide the school nurse with information, strategies, and resources to help manage the student with seizures by supporting positive treatment outcomes, maximizing educational and developmental opportunities, and ensuring a safe and supportive environment. This course is free and available online. (CDC Course No. RPWD 2924)

**By completing the course, school nurses will be able to:**

- Identify 2 of the most common seizure types in students with epilepsy, potential triggers, and risk factors for seizures and emergencies;
- Identify 3 ways in which treatment of epilepsy may affect a student's health, safety or learning;
- Apply 2 strategies to alleviate psychosocial challenges relating to epilepsy for students, parents, and school personnel;
- List 3 first aid steps in helping a student during and after a seizure; and
- Create a Seizure Action Plan for a student with epilepsy using safe practices for medication administration and delegation.

**Continuing Education Information:**

The Centers for Disease Control and Prevention is an accredited provider of Continuing Nursing Education (CNE) by the American Nurses Credentialing Center's Commission on Accreditation. This activity provides **2.2 CNE contact hours**. The CDC is authorized by IACET to offer **0.20 CEUs** for this program.

### **Seizure Training for School Personnel**

Provides school personnel with information needed to recognize seizures, respond with appropriate first aid, and understand the impact seizures have on students.

Classroom teachers, special education teachers, librarians, teacher assistants, school bus drivers, aides and other staff members or volunteers in grades K-12 can all benefit and can receive continuing education units.

This course is free and available online. (CDC Course No. RPWD 2903)

**By completing the course, school personnel will be able to:**

- Recognize 4 common seizure types;
- Identify 3 types of impacts that seizures have on students;
- List 3 first aid steps for helping students having a seizure;
- Recognize 3 aspects that make a seizure a medical emergency;
- Define 2 basic aspects of social support for students with seizures; and
- Describe 3 ways to academically support students with seizures.

**Continuing Education Information:**

The Centers for Disease Control and Prevention is authorized by IACET to offer **0.10 CEUs** for this program.

## **Student Training**

**Seizures and You: Take Charge of the Facts** is an epilepsy awareness program for high school students. It provides students with a basic knowledge of seizure types, first aid response, and includes a discussion to help reduce stigma and misperceptions about seizures and epilepsy.

**Seizures and You: Take Charge of the Storm** is an epilepsy awareness program for middle school students ages 11-14. It is part of an effort to educate teens and push for the inclusion of epilepsy education in school health and science classes. This program aims to dispel myths and reduce the perceived stigma associated with epilepsy within the teen population.

**Take Charge of the Storm Jr.** is an epilepsy awareness program targeting elementary school aged children in grades K-5. Students who complete the training will demonstrate a basic understanding of epilepsy as a medical condition, identify and learn about different types of seizures, and know what to do and what not to do when someone is having a seizure.

### **About the training:**

The training is approximately 40 minutes and should take place in class during the school day.

The Epilepsy Foundation can provide a program kit with a facilitator's guide, a CD-ROM containing essential materials, and a DVD that contains a video. The materials are provided free of charge.

## Clinical Research Report

# Impact of Training Program on School Nurses' Confidence Levels in Managing and Supporting Students With Epilepsy and Seizures

Joan K. Austin, DNS, RN, FAAN, Jody R. M. Kakacek, MA, and Deborah Carr, MEd

This article presents a quantitative assessment of the impact of an epilepsy-focused training program on school nurses. The Epilepsy Foundation and the National Association of School Nurses (NASN) created a training program titled "Managing Students with Seizures" to educate school nurses on strategies and resources that they can use to handle emergency situations effectively and to create a safe and supportive school environment for children with epilepsy and seizures. Before and after the training sessions, nurses answered questionnaires that measured their confidence levels in providing care for students with epilepsy and seizures; these questionnaires showed an improvement in nurses' confidence levels across all measures. Analysis was also carried out to identify program components and nurse subgroups associated with statistically significant improvements. An evaluation of satisfaction indicated overall satisfaction with the program. This article presents results from 1,080 complete surveys associated with the training in 2007.

**Keywords:** school nurse education; school nurse knowledge/perceptions/self-efficacy; program development/evaluation; quantitative research; epilepsy; seizures; seizure disorders

### INTRODUCTION

Epilepsy, which refers to recurrent seizures, is prevalent in the United States and can confer a substantial clinical and social burden. Over three million Americans currently have epilepsy, with approximately 200,000 new cases being diagnosed each year. Seizures often go untreated, in large part because patients have a hard time recognizing them and health care providers may have trouble diagnosing the disorder (Benbadis, 2010; Epilepsy Foundation, n.d.). When most people think of a seizure, they picture a tonic-clonic or convulsion lasting 1–3 min, which is characterized by jerking of the body, loss of consciousness, and noises that resemble crying and groaning. The highly visible symptoms that accompany generalized tonic-clonic seizures allow relatively easy

diagnosis. In contrast, other kinds of seizures such as absence seizures and partial seizures are much harder to identify and may lead to serious misconceptions about epilepsy (Hootman & National Association of School Nurses, 2002; Types of Seizures, n.d.).

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JOSN, Vol. 26 No. 6, December 2010 420-429

DOI: 10.1177/1059840510380206

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Approximately 326,000 children 14 years of age and younger in the United States have epilepsy (Epilepsy Foundation, n.d.). These children must contend with the physical manifestations of the disorder and the associated stigma. Children with epilepsy often have trouble handling the pressure of their condition and can develop a negative self-image, partially as a result of having little control over their seizures (Hoie et al., 2006; Marin, 2005). Anxiety and depression symptoms are common in children and adolescents with epilepsy (Hoie et al., 2006; Marin, 2005).

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School nurses play an important role in managing and supporting students with epilepsy at school. Therefore, it is important that school nurses be knowledgeable about epilepsy and about how to help children with epilepsy at school. Nevertheless, in 2005, only 60% of school nurses reported that they felt confident in their ability to manage students with seizures (Olympia, Wan, & Avner, 2005). To address this deficiency and to meet the other needs of the school nurses and the students with epilepsy under their care, the Epilepsy Foundation, in conjunction with the National Association of School Nurses (NASN) and the U.S. Centers for Disease Control and Prevention (CDC), created a unique training program entitled "Managing Students with Seizures." This program educates school nurses on the strategies and resources they can use to handle emergency situations effectively and to create an overall safe and supportive environment in their schools for children with epilepsy. In addition to training for the nurses, the program provides them with materials to train other school personnel such as teachers and administrative staff. This program is especially vital because teachers usually do not have sufficient knowledge about epilepsy and its impact on the educational setting (Lee, Lee, Chung, Yun, & Choi-Kwon, 2010).

## METHOD

### Overview of Training Sessions and Survey Administration

The "Managing Students with Seizures" training sessions took place across the United States from the spring of 2005 to the summer of 2007. Educators presented topics to the school nurses through videos, PowerPoint presentations, case studies, and interactive discussions. The nurses often received take-home materials at the end of their sessions to complement their training and to serve as resources in their school environments.

At the beginning and end of each training session, nurses completed questionnaires in which they rated their confidence levels about various aspects of epilepsy and seizures. Participants indicated levels of confidence on items using 5-point Likert-type scales, in which (1) represented *disagree strongly* and (5) represented *agree strongly*. The nine aspects of epilepsy management and support included in the questionnaire were the following:

- Recognizing partial seizures in students
- Recognizing generalized seizures in students
- Knowing when emergency help should be contacted for a student having a seizure
- Identifying the essential components of a seizure action plan
- Knowing the kinds of medical support that a student with epilepsy may need
- Knowing the kinds of social support that a student with epilepsy may need
- Creating a safe and supportive environment for students with epilepsy
- Providing appropriate seizure training to teachers and other school personnel
- Having the skills to effectively manage students with epilepsy

The pretraining questionnaire also posed demographic questions (i.e., gender, ethnicity, years of nursing experience, highest educational degree, most advanced licensure status, nurse educator experience, experience treating students with epilepsy or seizures, and personal familiarity with people who have epilepsy or seizures). Following the entire training program, nurses completed an evaluation designed to assess their overall satisfaction with the training. This survey also assessed the applicability of content to the participants'



needs and allowed for feedback on both training content and presentation style.

### Statistical Analysis

Boston Healthcare Associates (BHA) conducted a statistical analysis on all completed pre- and posttraining questionnaires using SPSS Version 13.0. A Student's two-tailed *t* test determined statistical significance for all comparisons. Multivariate statistical analyses were performed using analysis of variance (ANOVA) to identify statistically significant response differences by participant characteristics. A *p* value of .05 was used as the threshold for statistical significance.

### Survey

The CDC developed and validated the survey used with the training sessions in 2005. Following that pilot program, BHA revised and validated the survey tools used with the 2006 and 2007 versions of the program in conjunction with the Epilepsy Foundation and the CDC. Content experts provided an evaluation of the survey and changes were made. These changes in wording prevent the comparison of data from 2005 to data from later training sessions.

To ensure accuracy in data entry from the paper surveys, all numerical data were entered using a double key method to minimize data entry errors. BHA then used SPSS to identify and remove any identical participant records that may have resulted when affiliates sent in multiple copies of the same survey.

## RESULTS

### Demographic Characteristics

The 1,080 completed surveys included in the 2007 analysis of the "Managing Students with Seizures" training sessions were representative of 33 affiliates throughout the United States. These surveys included demographic, pretraining, posttraining, and general evaluation questionnaires. BHA excluded 163 surveys from the analysis because they were either not in the 2007 survey format or were incomplete (e.g., missing unique

identifiers, demographic data, or one or more of the three surveys).

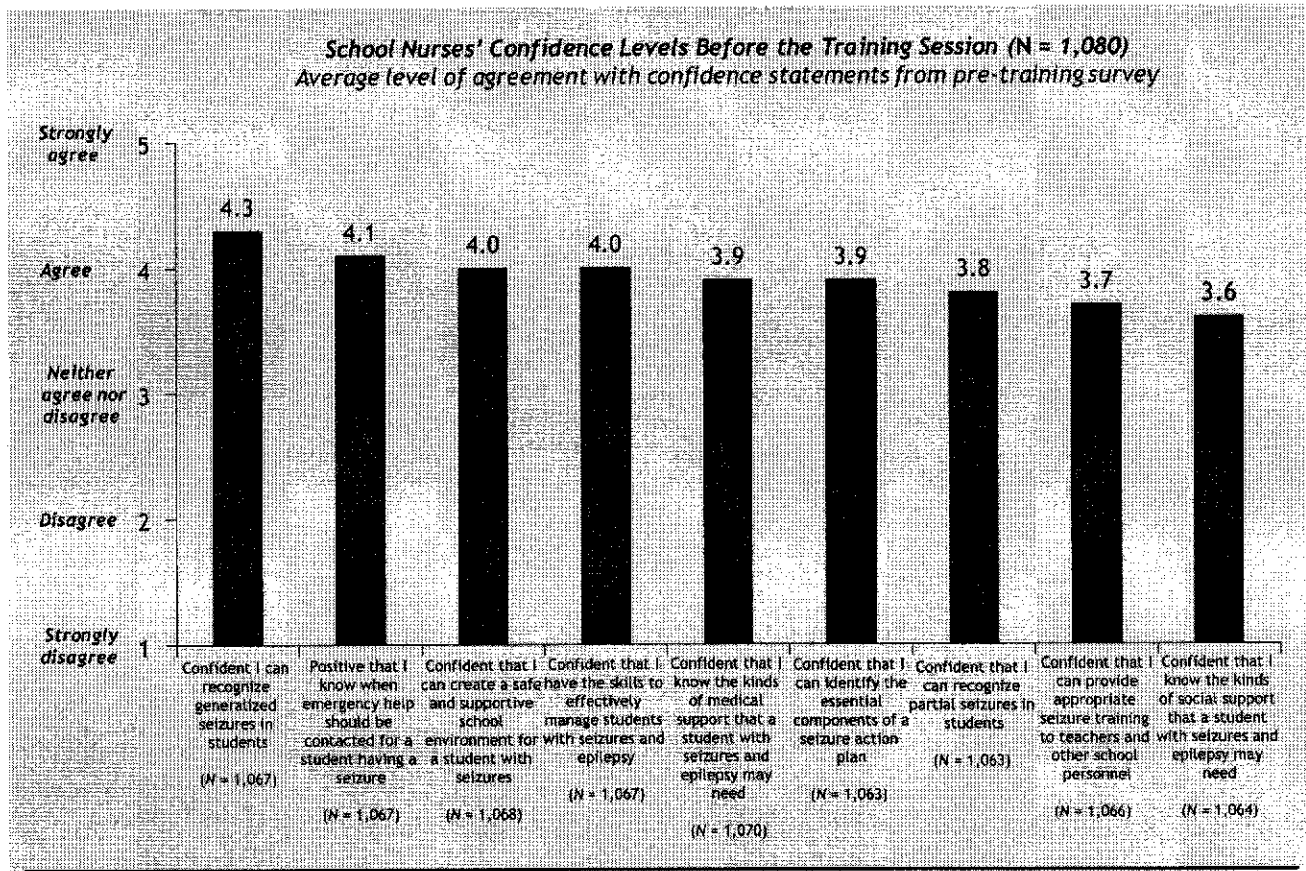
The 1,080 individuals analyzed had the following characteristics:

- *Gender*: 99% of respondents were female and 1% was male
- *Ethnicity*: 85% of respondents identified themselves as White/Caucasian, 7% as Black/African American, 5% as Hispanic, 1% as Asian, 1% as Native American, and 1% as Other
- *Professional experience*: 3% of respondents had more than 40 years of nursing experience, 23% had 31–40 years of experience, 35% had 21–30 years of experience, 26% had 11–20 years of nursing experience, and 13% had less than 11 years of nursing experience
- *Highest degree obtained*: 20% of respondents had master's degree, 52% had bachelor's degrees, 16% had associate's degrees, and 12% had other degrees (including high school diploma)
- *Most advanced licensure status*: 1% of respondents were clinical nurse specialists, 4% were nurse practitioners, 85% were registered nurses, 2% were licensed vocational nurses, 4% were licensed practical nurses, and 4% had other licensures

### 2007 Aggregate Findings on Pretraining and Posttraining Surveys

The aggregate results from the pretraining surveys showed that prior to participating in the "Managing Students with Seizures" program, nurses had a moderate level of confidence in working with students with seizures in terms of these nine measures. Average ratings on the 5-point Likert-type scale ranged from 3.6 to 4.3 across the 9 aspects of epilepsy management and support (Figure 1). Nurses were most confident in their ability to recognize generalized seizures and least confident in their knowledge of the types of social support that a student with epilepsy might need.

Results from the posttraining surveys demonstrated a significant improvement in confidence across each of the nine measures. Following the training, nurses were most confident in knowing when emergency help should be contacted for a student having a seizure (average rating of 4.7) and least confident in recognizing partial seizures in students, with an average rating of 4.5 (Figure 2). Nurses showed the largest improvement in confidence (from 3.6 to 4.6) in their knowledge of the kinds of social support that a student with seizures and epilepsy might need (Figure 3).



**Figure 1.** Aggregate School Nurses' Confidence Levels Before Epilepsy Foundation Training Program.

**Trends by Years of Professional Experience**

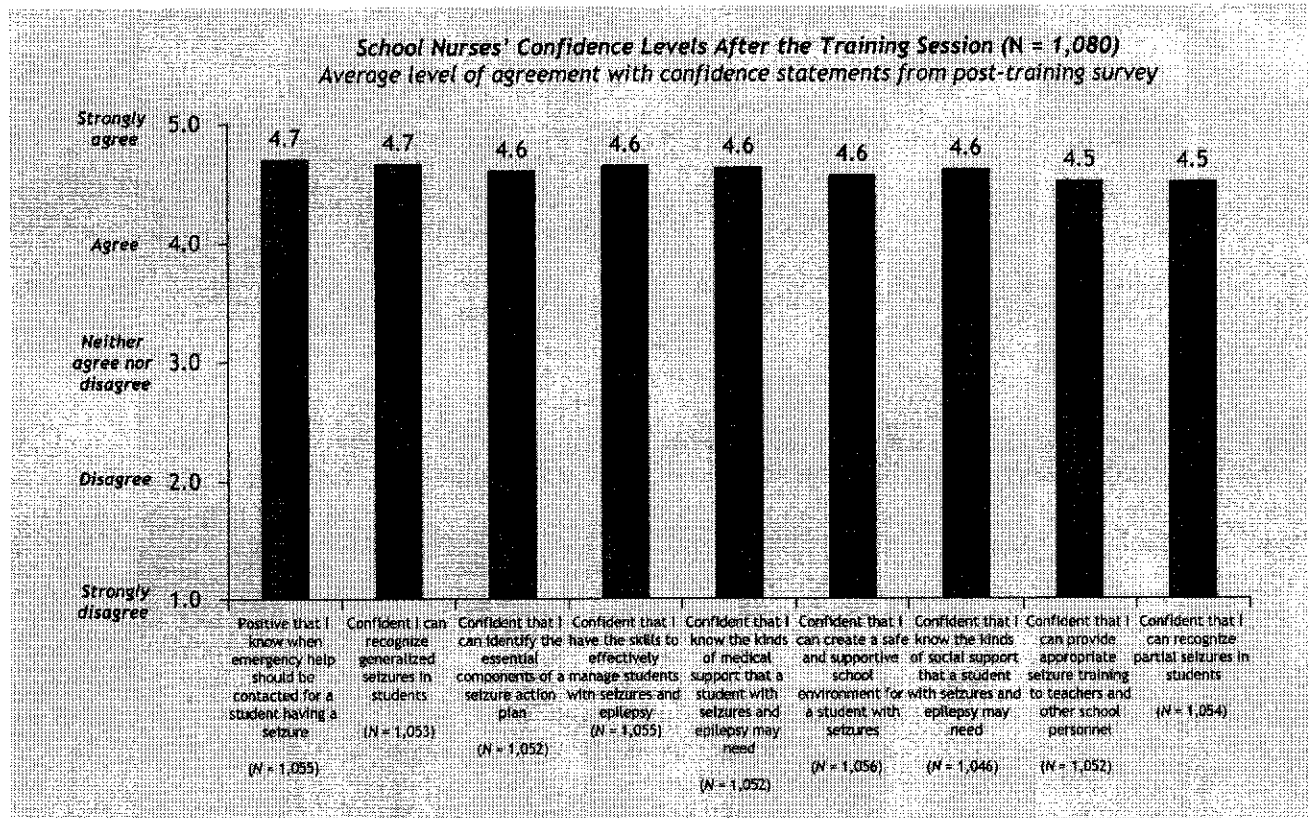
In a few cases, additional years of nursing experience corresponded to greater confidence in the ability to recognize, manage, and support students with seizures and epilepsy. Following the "Managing Students with Seizures" training, nurses with 0–10 years of experience felt significantly more confident in their ability to recognize generalized seizures in students (+0.54,  $p < .001$ ) and to know when emergency help should be contacted for a student having a seizure (+0.76,  $p < .01$ ). Conversely, nurses with 31–40 years of experience reported a significantly lower improvement in confidence in recognizing generalized seizures in students compared to all nurses (+0.27,  $p < .01$ ).

**Trends by Highest Degree Received**

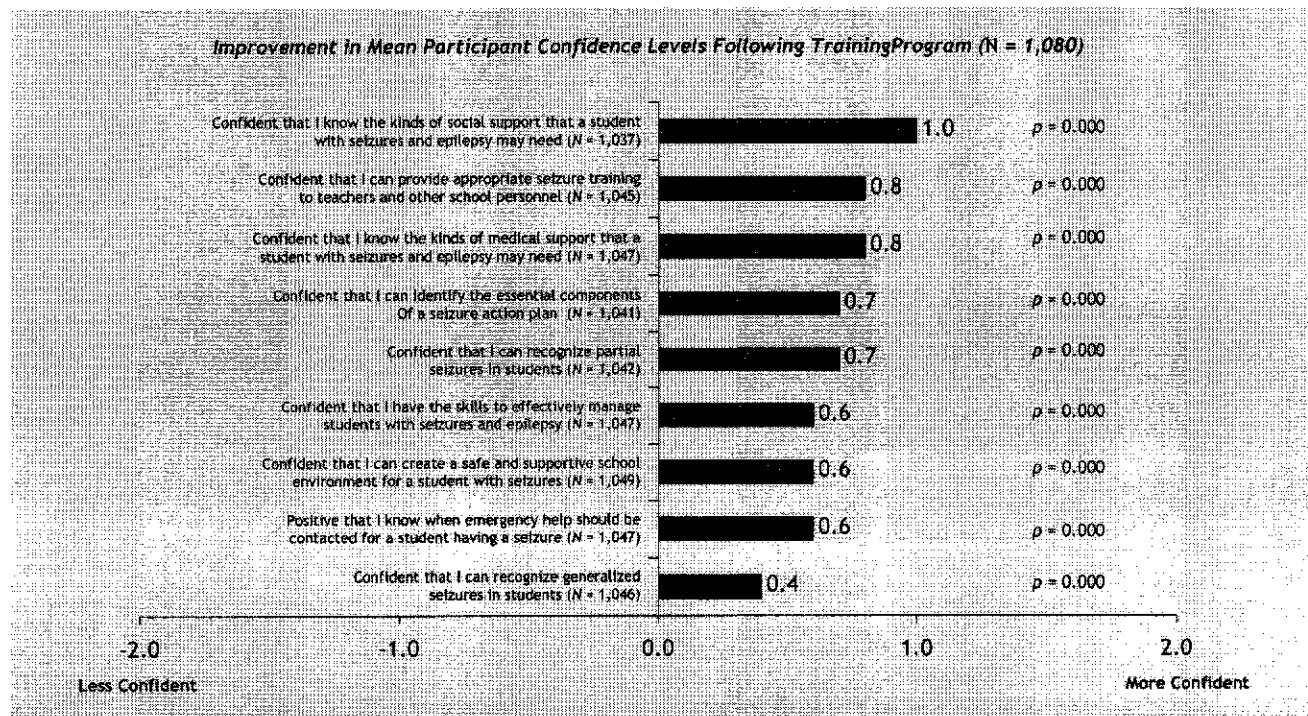
Confidence levels often varied with nurses' self-reported educational background. Nurses

with bachelor's degrees reported a significant increase in confidence in recognizing partial seizures in students (+0.75,  $p < .01$ ), knowing when emergency help should be contacted for a student having a seizure (+0.65,  $p < .05$ ), identifying the essential components of a seizure action plan (+0.86,  $p < .01$ ), knowing the kinds of medical support that a student with epilepsy might need (+0.83,  $p < .01$ ), knowing the kinds of social support that a student with epilepsy might need (+1.06,  $p < .01$ ), creating a safe and supportive environment for students with seizures (+0.69,  $p < .05$ ), and providing appropriate seizure training to teachers and other school personnel compared to all nurses (+0.86,  $p < .01$ ).

In contrast, nurses with a master's degree showed significantly less improvement in confidence compared to all nurses in recognizing generalized seizures in students (+0.28,  $p < .05$ ), knowing when emergency help should be contacted for a student having a seizure (+0.49,  $p < .05$ ), identifying the essential components of a seizure action plan



**Figure 2.** Aggregate School Nurses' Confidence Levels After Epilepsy Foundation Training Program.



**Figure 3.** Change in Mean Confidence Levels Following Training Program.

(+0.66,  $p < .01$ ), and knowing the kinds of medical support that a student with seizures and epilepsy might need (+0.61,  $p < .01$ ). Similarly, nurses with an associate degree showed significantly less improvement in confidence in creating a safe and supportive environment for students with seizures and epilepsy compared to all nurses (+0.52,  $p < .05$ ).

### **Trends by Licensure Status**

Registered nurses showed significantly greater improvement in mean confidence levels compared to all nurses in recognizing partial seizures in students (+0.71,  $p < .05$ ), identifying the essential components of a seizure action plan (+0.82,  $p < .01$ ), knowing the kinds of medical support that a student with epilepsy and seizures might need (+0.79,  $p < .01$ ), and knowing the kinds of social support that a student with seizures and epilepsy might need (+1.01,  $p < .01$ ). Conversely, licensed practical nurses reported significantly less improvement in confidence compared to all nurses in identifying the essential components of a seizure action plan (+0.47,  $p < .01$ ). Nurse practitioners also reported significantly less improvement in recognizing general seizures compared to all nurses (+0.19,  $p < .05$ ).

### **Trends by Experience Treating Students With Epilepsy or Seizures**

Nurses who reported previous experience treating a student with epilepsy or seizures reported less improvement in mean confidence levels compared to all nurses across each of the nine aspects of epilepsy management and support. Differences in mean confidence levels were significantly lower for nurses who had previously treated a student with epilepsy or seizures across eight of the nine aspects of management and support, with confidence in creating a safe and supportive school environment for a student with seizures being the only aspect not achieving statistical significance.

### **Trends by Personal Familiarity With Someone who has Epilepsy or Seizures**

Nurses who reported personal familiarity with someone who has epilepsy or seizures reported

equal or less improvement in mean confidence levels compared to all nurses across each of the nine aspects of epilepsy management and support. Differences in mean confidence levels were significantly lower for nurses who had personal familiarity with someone who has epilepsy or seizures across seven of the nine aspects of management and support, with confidence in recognizing generalized seizures and knowing when emergency help should be contacted for a student having a seizure being the two aspects failing to achieve statistical significance.

### **Overall Satisfaction With the Program**

Results from the general evaluation questionnaires indicate that nurses responded favorably to the training objectives, content, and presentation format, with ratings ranging from 4.6 to 4.72 on the 5-point Likert-type scale (Figure 4). Nurses most strongly agreed with the statement that they understand the session's objectives (average rating of 4.72) and further supported this with their level of satisfaction with the program's modules with an average rating 4.61–4.7 (Figure 5).

When asked about their likes and dislikes in the program, 86.9% of nurses indicated that they liked the take-home materials and 83% expressed approval of the presenters of the program (Figure 6). Nurses also commented positively on the opportunities to network, opportunities to ask questions, and the convenience of the location. Overall, 46.4% of nurses noted that there was "nothing" they disliked about the program, and of the 10.2% who reported "other" in response to the "what did you dislike about the program" question, their comments reflected dissatisfaction with room logistics, the amount of material covered during the training, and insufficient supplies for all participants (Figure 7).

## **DISCUSSION**

Overall, these results were encouraging. After participation in the program, nurses showed improvement in their confidence to handle seizures and epilepsy in children at school.

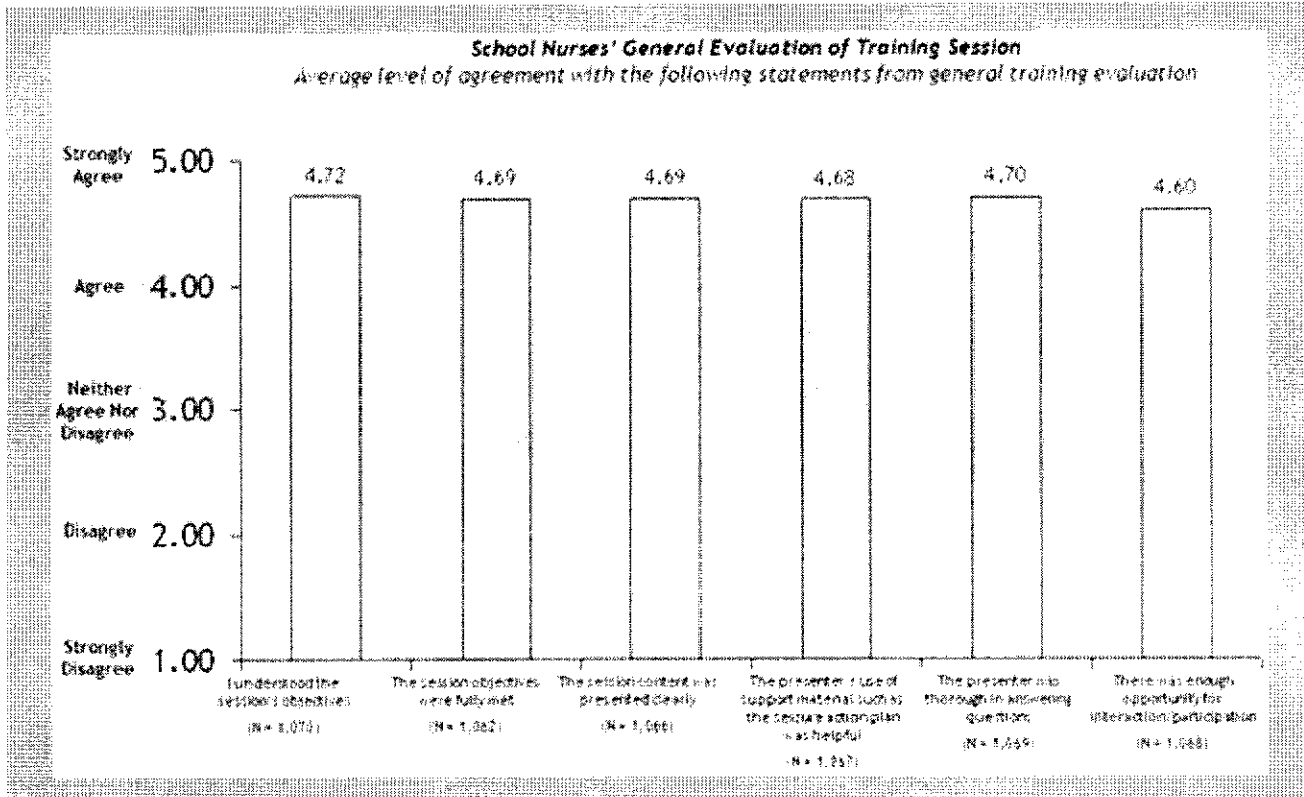


Figure 4. Aggregate School Nurses' General Evaluations After Epilepsy Foundation Training Program.

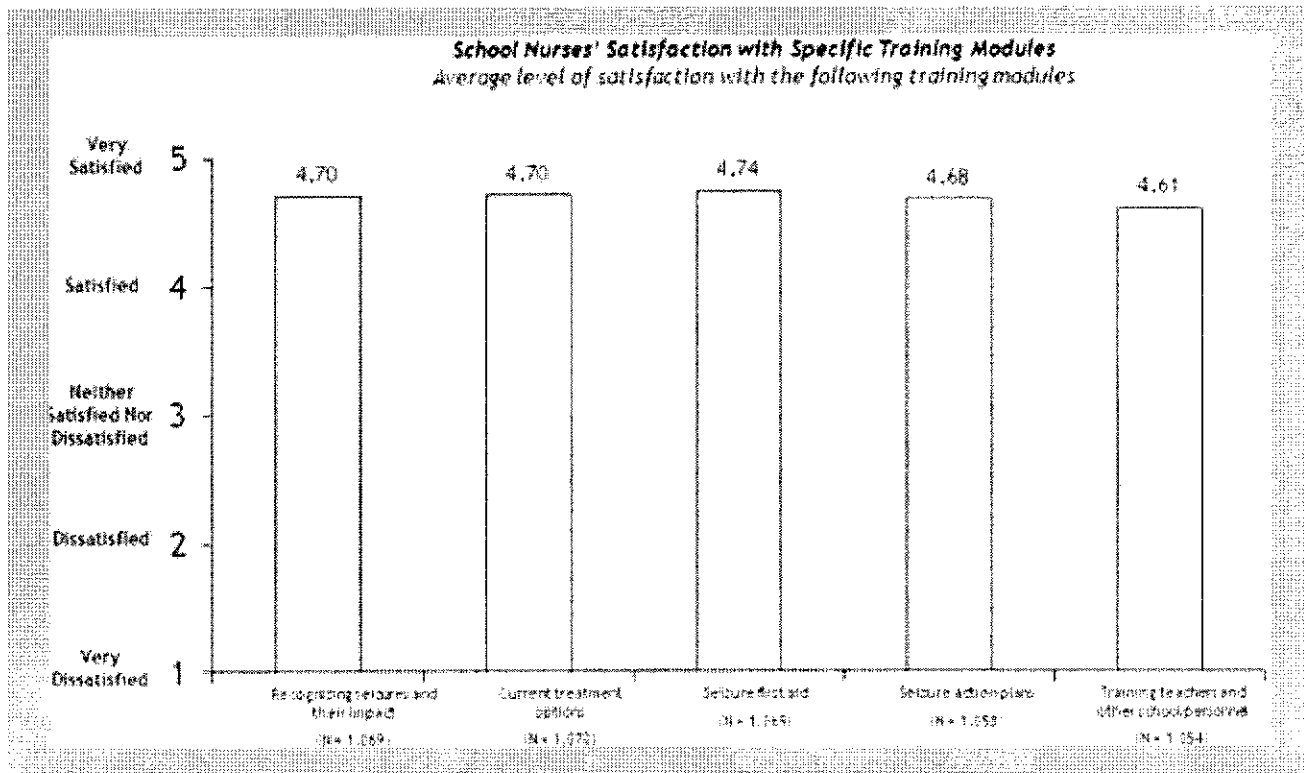


Figure 5. Aggregate School Nurse Satisfaction Levels After Epilepsy Foundation Training Program.

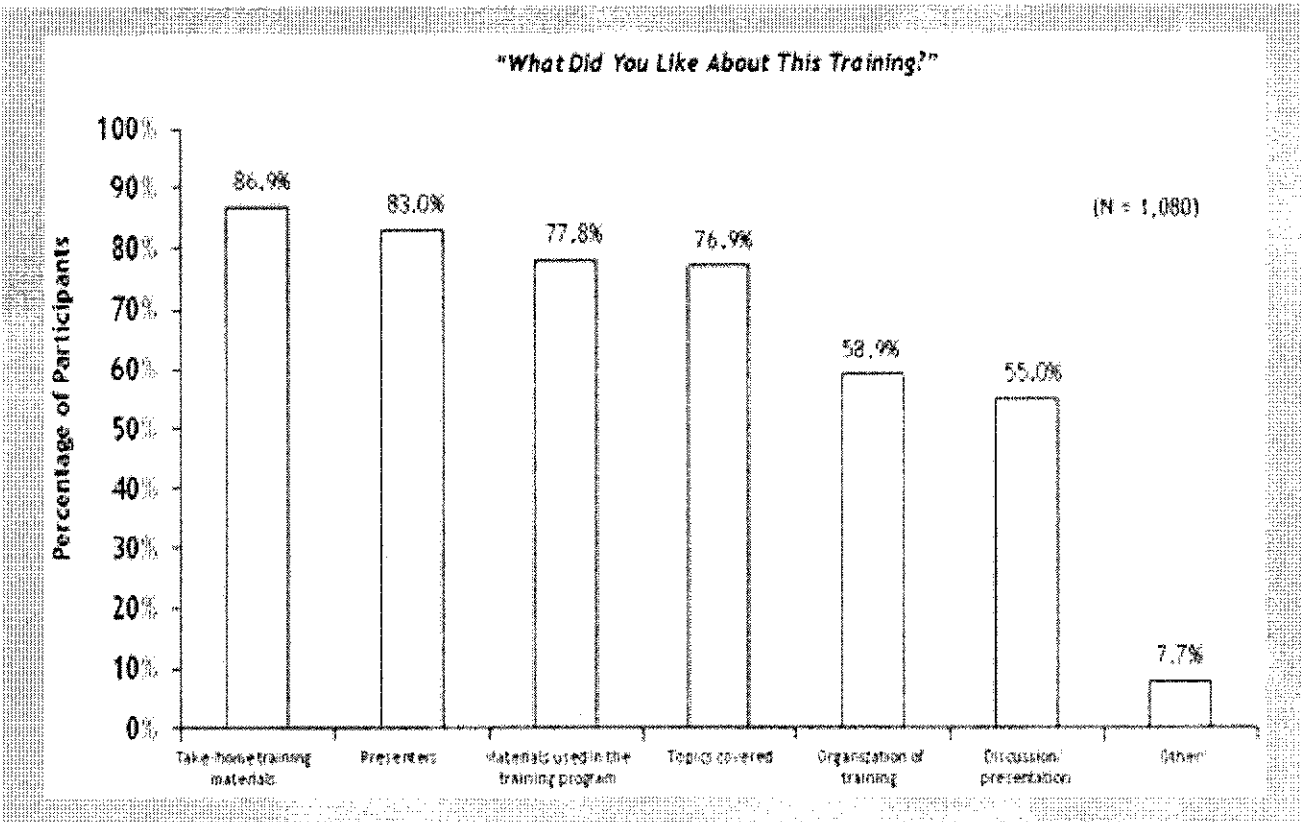


Figure 6. Compiled Results of Items Liked by School Nurses Following Completion of the Epilepsy Foundation Training Program.

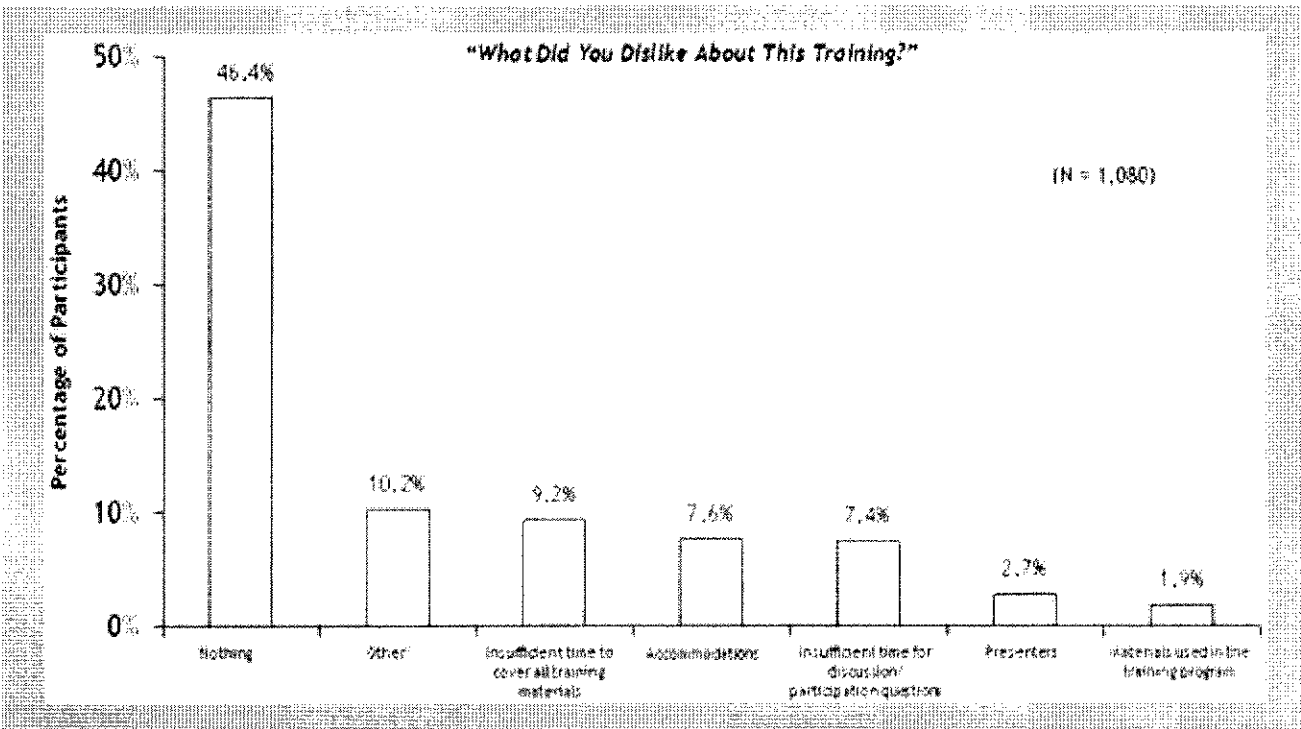


Figure 7. Compiled Results of Items Disliked by School Nurses Following Completion of the Epilepsy Foundation Training Program.

Nurses especially felt confident in knowing when emergency help was needed and in their ability to recognize generalized seizures. Licensure seemed to play a role in confidence levels, with nurses possessing higher degrees also reporting more experience with seizures, thus potentially contributing to their comfort level with students with seizures. It was especially encouraging that those nurses who had the least prior experience with epilepsy gained the most from the program. This finding demonstrates that the program was aimed at the proper level for nurses with little experience with epilepsy. Nurses also provided feedback about the materials, as well as suggestions for improvements that could be made to make the program even more effective. This program met their needs for information and led to their gaining new knowledge, which should help them when they come into contact with students with seizures and improve the environment for children with epilepsy in the future.

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Despite the encouraging data, training still needs to be improved in terms of seizure recognition of partial seizures and in confidence in their ability to provide training to other personnel. Nurses with bachelor's degrees had the highest level of confidence in recognizing partial seizures, whereas nurses with other degrees reported a lower level of confidence in recognizing different types of seizures in their students. Partial seizures can be difficult to recognize and more time might need to be devoted to describing and showing examples of the range of partial seizures in the program. It is important that nurses become aware of the full range of bodily movements and behaviors that reflect partial seizures to reduce the possibility that children with partial seizures will not go unrecognized in the school setting. Identifying children who are experiencing partial seizures that have previously gone unrecognized

could lead to earlier diagnosis and treatment of seizures.

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Further information is needed regarding how the training on recognition of partial seizures can be improved and on what is needed to help school nurses be more confident in providing training for teachers and other school personnel. It might be that the Epilepsy Foundation should conduct focus groups with teachers to identify any additional materials needed to teach other school personnel.

There are a few limitations to the study that need to be considered in the interpretation of results. Results of the study might not be generalizable because this was a convenience sample and nurses choose to attend the trainings based on their interests. It is not possible to test the effectiveness of the program because all interested nurses received the training and there was not a control group.

#### SCHOOL NURSING IMPLICATIONS

Besides enhancing the care provided to students with epilepsy, the *Managing Students with Seizures* program has implications for the education of school nurses as well as other school personnel.

School nurses can access the training program through several different methods, including in-person and online training. A school nurse may contact the local Epilepsy Foundation affiliate in his or her area to schedule training or a school nurse may take the training online through the NASN website at [www.nasn.org](http://www.nasn.org). School nurses are encouraged to take advantage of the training, because it will provide them with the necessary tools to prepare a seizure action plan for each student with epilepsy, to communicate and educate other school personnel about seizure first aid, and to find resources for parents regarding epilepsy management in the school setting.

In addition to educating school nurses, the *Managing Students with Seizures* program provides nurses with a program to teach at their schools, *Seizure Training for School Personnel*. This presentation is designed to help teachers, administrators, coaches, bus drivers, and other school personnel recognize seizures, learn appropriate first aid, and dispel myths and misperceptions that may be present about epilepsy among students in their school environment. This valuable tool along with a *Quick Reference Guide* that serves as a resource guide about epilepsy to nurses are components that a school nurse can share within his or her school and have an impact on other faculty that interact with students with seizures. By participating in the *Managing Students with Seizures* program, school nurses will not only enhance their own knowledge of epilepsy but they will optimize the delivery of care for students with seizures.

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# My Seizure Response Plan

Name: \_\_\_\_\_ Birth Date: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_

1st Emergency Contact /Relation: \_\_\_\_\_ Phone: \_\_\_\_\_

2nd Emergency Contact / Relation: \_\_\_\_\_ Phone: \_\_\_\_\_

## Seizure Information

Seizure Type/Nickname	What Happens	How Long It Lasts	How Often

## Triggers

\_\_\_\_\_

\_\_\_\_\_

## Daily Seizure Medicine

Medicine Name	Total Daily Amount	Amount of Tab/Liquid	How Taken (time of each dose and how much)

## Other Seizure Treatments

Device Type: \_\_\_\_\_ Model: \_\_\_\_\_ Serial# \_\_\_\_\_ Date Implanted \_\_\_\_\_

Dietary Therapy: \_\_\_\_\_ Date Begun: \_\_\_\_\_

Special Instructions: \_\_\_\_\_

\_\_\_\_\_

Other Therapy: \_\_\_\_\_

\_\_\_\_\_

## Seizure First Aid

- Keep calm, provide reassurance, remove bystanders
- Keep airway clear, turn on side if possible, nothing in mouth
- Keep safe, remove objects, do not restrain
- Time, observe, record what happens
- Stay with person until recovered from seizure
- Other care needed: \_\_\_\_\_

## Call 911 if...

- Generalized seizure longer than 5 minutes
- Two or more seizures without recovering between seizures
- “As needed” treatments don’t work
- Injury occurs or is suspected, or seizure occurs in water
- Breathing, heart rate or behavior doesn’t return to normal
- Unexplained fever or pain, hours or few days after a seizure
- Other care needed: \_\_\_\_\_

## When Seizures Require Additional Help

Type of Emergency (long, clusters or repeated events)	Description	What to Do

## “As Needed” Treatments (VNS magnet, medicines)

Name	Amount to Give	When to Give	How to Give

### Health Care Contact

Epilepsy Doctor: \_\_\_\_\_ Phone: \_\_\_\_\_

Nurse/Other Health Care Provider: \_\_\_\_\_ Phone: \_\_\_\_\_

Preferred Hospital: \_\_\_\_\_ Phone: \_\_\_\_\_

Primary Care: \_\_\_\_\_ Phone: \_\_\_\_\_

Pharmacy: \_\_\_\_\_ Phone: \_\_\_\_\_

**Special Instructions:** \_\_\_\_\_

\_\_\_\_\_

*My signature* \_\_\_\_\_ Date \_\_\_\_\_

*Provider signature* \_\_\_\_\_ Date \_\_\_\_\_





## Seizure Action Plans

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**Position:** The Epilepsy Foundation believes a Seizure Action Plan is essential to preventing an emergency and informing others what to do in emergency situations when a student experiences a seizure in the school environment.

**Background:** In the United States, about 500,000 children – approximately 6 in 1,000 – live with epilepsy and seizures. Epilepsy is the fourth most common neurological disorder in the country and is characterized by recurrent and unpredictable seizures which affect a variety of mental and physical functions. Epilepsy is a spectrum condition with a wide range of seizure types and control varying from person-to-person.

A seizure can occur at any time, in any place – even for individuals who have previously been stable on prescription medications. Not every seizure is an emergency event that requires medical intervention. Just like there are different types of seizures, there are also different types of responses to those seizures. It is imperative that those charged with the care of a child living with epilepsy and seizures have access to the specific triggers, medical interventions, treatment protocols and contact information for caregivers and medical personnel.

Seizure Actions Plans are a critical tool for ensuring school personnel have access to seizure response information specific to an individual student. Seizure Action Plans are filled out by the child's caregiver(s), in consultation with his or her physician, and in collaboration with school personnel who may be charged with caring for the child in the event of a seizure. By equipping school personnel with this information, they can better provide seizure first aid or emergency care that is specific to the individual student's seizure type. In turn, when the right protocol is followed, school personnel can help prevent emergency situations and more quickly seek emergency medical interventions to help keep the student safe and healthy during the school day.

**If you have any questions or concerns, please contact Laura Weidner, Esq., Vice President of Government Relations & Advocacy at 301-918-3766 or [lweidner@efa.org](mailto:lweidner@efa.org).**

# Seizure Action Plan

This student is being treated for a seizure disorder. The information below should assist you if a seizure occurs during school hours.

Student's Name	Date of Birth
Parent/Guardian	Phone <span style="float: right;">Cell</span>
Other Emergency Contact	Phone <span style="float: right;">Cell</span>
Treating Physician	Phone
Significant Medical History	

## Seizure Information

Seizure Type	Length	Frequency	Description

Seizure triggers or warning signs:

Students's response after a seizure:

## Basic First Aid Care & Comfort

Please describe basic first aid procedures:

Does student need to leave the classroom after a seizure?  Yes  No  
 If YES, describe process for returning student to classroom:

## Basic Seizure First Aid

- Stay calm & track time
- Keep child safe
- Do not restrain
- Do not put anything in mouth
- Stay with child until fully conscious
- Record seizure in log
- For tonic-clonic seizure:**
- Protect head
- Keep airway open/watch breathing
- Turn child on side

## Emergency Response

A "seizure emergency" for this student is defined as: Seizure Emergency Protocol (Check all that apply and clarify below)

Contact school nurse at \_\_\_\_\_

Call 911 for transport to \_\_\_\_\_

Notify parent or emergency contact

Administer emergency medications as indicated below

Notify doctor

Other \_\_\_\_\_

## A seizure is generally considered an emergency when:

- Convulsive (tonic-clonic) seizure lasts longer than 5 minutes
- Student has repeat seizures without regaining consciousness
- Student is injured or has diabetes
- Student has a first-time seizure
- Student has breathing difficulties
- Student has a seizure in water

## Treatment Protocol During School Hours (include daily and emergency medications)

Emerg. Med.	Medication	Dosage & Time of Day Given	Common Side Effects & Special Instructions

Does student have a Vagus Nerve Stimulator?  Yes  No If YES, describe magnet use:

## Special Considerations and Precautions (regarding school activities, sports, trips, etc.)

Describe any special considerations or precautions:

Physician Signature \_\_\_\_\_

Date \_\_\_\_\_

Parent/Guardian/Signature \_\_\_\_\_

Date \_\_\_\_\_





## Anticonvulsant and Rescue Medications in the School Setting

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### Anticonvulsant Medications

**Position:** Students with epilepsy must have access to physician-directed care including prescribed, FDA-approved anticonvulsants and emergency seizure rescue medications while on school grounds. Non-medical school personnel should be trained to administer seizure rescue medications so children with epilepsy can access the full range of school and related experiences.

**Background:** Epilepsy is the fourth most common neurological disorder in the United States. Approximately 1 in 26 Americans will develop epilepsy at some point in their lifetime with children and older adults more likely to experience a seizure disorder. About 6 in 1,000, or around 500,000, students are living with epilepsy today. Epilepsy is characterized by recurrent and unpredictable seizures which affect a variety of mental and physical functions. It is a spectrum condition with a wide range of seizure types and control varying from person-to-person. For individuals living with epilepsy, timely access to appropriate, physician-directed care, including anticonvulsants and emergency seizure rescue medications, is critical.

**Anticonvulsants:** Anticonvulsants are the most common and cost-effective treatment for controlling and/or reducing seizures. People living with epilepsy who experience a delay in accessing their anticonvulsants due to non-medical treatment policies are at a high risk for developing breakthrough seizures and related complications, including sudden death. Breakthrough seizures also lead to an increased risk of hospitalization, missed educational time, and diminished productivity.

There is no “one size fits all” treatment option for epilepsy, and the response to epilepsy medications can be different for each person. Achieving and maintaining seizure control with minimal side effects requires careful evaluation and monitoring by the physician and patient. For children, off-label prescribing, meaning that the medication is not indicated for either their age or specific seizure disorder, can be necessary to ensure they achieve seizure control. It is not unusual for children living with epilepsy to receive this type of prescription – a recent study found that approximately 20% of medications prescribed to children are off-label.

**Seizure Rescue Medications:** Children with epilepsy may experience life-threatening seizures at any moment and need access to emergency seizure medication when at school. For most people, conventional medication that can be taken orally are effective in controlling seizures. But some children are susceptible to prolonged, cluster, or status seizures, which may last longer than five minutes and can lead to serious injury and even death. For these children, a physician may prescribe emergency seizure medication to be administered on an emergency basis. Following standard procedures, as prescribed by the treating physician, it is crucial that caretakers administer emergency seizure medication in a timely manner when a prolonged seizure or cluster of seizures occurs.

Some children have unnecessarily been excluded from emergency medication programs because some individuals have mistakenly asserted that these treatments must be administered or applied by a medical professional, or that extensive monitoring of the child is required. Emergency seizure medication has been specifically designed for administration by non-medical caregivers who have been instructed to use it, including parents, caregivers, or school personnel in accordance with the child’s treatment plan.





State	Estimated Number of Children with Active Epilepsy (ages 0-17) <sup>1</sup>
Alabama	7,500
Alaska	1,100
Arizona	11,200
California	59,800
Colorado	7,800
Connecticut	4,500
District of Columbia	800
Delaware	1,300
Florida	27,300
Georgia	16,700
Hawaii	2,000
Idaho	2,600
Illinois	18,600
Indiana	10,600
Iowa	4,400
Kansas	4,400
Maine	1,700
Maryland	7,900
Massachusetts	8,400
Michigan	13,600
Minnesota	7,400
Mississippi	5,100
Missouri	8,300
Nebraska	2,800
Nevada	4,400
New Hampshire	1,500
New York	26,600
Ohio	16,900
Oklahoma	6,400
Oregon	5,400
Pennsylvania	16,900
Rhode Island	1,300
Tennessee	10,000
Texas	47,200
Utah	5,300
Vermont	700
Virginia	11,000
Washington	10,200
West Virginia	2,500
Wisconsin	7,900

State	Estimated Number of People with Active Epilepsy <sup>2</sup>
Alabama	54,100
Alaska	7,200
Arizona	77,000
California	427,000
Colorado	56,800
Connecticut	35,900
District of Columbia	7,500
Delaware	9,700
Florida	223,900
Georgia	110,200
Hawaii	14,000
Idaho	16,800
Illinois	136,600
Indiana	69,500
Iowa	31,400
Kansas	29,900
Maine	14,000
Maryland	59,900
Massachusetts	71,600
Michigan	108,900
Minnesota	53,700
Mississippi	35,700
Missouri	61,200
Nebraska	19,600
Nevada	31,600
New Hampshire	13,100
New York	215,200
Ohio	126,400
Oklahoma	41,100
Oregon	42,900
Pennsylvania	133,000
Rhode Island	11,100
Tennessee	73,900
Texas	292,900
Utah	29,300
Vermont	6,300
Virginia	84,800
Washington	74,600
West Virginia	21,500
Wisconsin	59,600

<sup>1</sup> Centers for Disease Control and Prevention. *Epilepsy Data and Statistics*. Last updated November 18, 2018  
<https://www.cdc.gov/epilepsy/data/index.html>

<sup>2</sup> Centers for Disease Control and Prevention. *Epilepsy Data and Statistics*. Last updated November 18, 2018  
<https://www.cdc.gov/epilepsy/data/index.html>

# Seizure Safe School Act

-  Requires school personnel to complete a seizure recognition and first-aid response training.
-  Mandates that the Seizure Action Plan is made part of the student's file and made available to school personnel and volunteers responsible for the student.
-  Ensures that any FDA-approved medication prescribed by the treating physician is administered to the student living with epilepsy.
-  Educates and trains students about epilepsy and first-aid response.

Is your school seizure safe?