Countering the False Promise of Pseudoscience in Schools

Why do parents, administrators, and school staff increasingly buy into pseudoscientific treatment claims? How can educational audiologists and school-based SLPs debunk those claims?

BY PATRICK FINN

*An internet video shows a nonverbal teen named Dillan with autism spectrum disorder (ASD) delivering an inspirational speech using an Apple iPad to convert his text to spoken words (**bit.ly/applerpm**). Assistive technology helps Dillan communicate. The video also shows an adult woman acting as a facilitator, holding the device for Dillan as he enters text. This video goes viral.*

*Soon parents start requesting this approach—called rapid prompting method (RPM)—for their child in the schools. Yet ASHA discourages use of RPM, characterizing it as "pseudoscience," because the facilitator—not the person with the disability—might unwittingly be the communicator (**www.asha.org/Independent-Communication**).*

Take time to help parents—and remind school staff—to learn to recognize warning signs distinguishing science from pseudoscience.

Q Why do parents, school administrators, or supervisors sometimes embrace pseudoscientific claims?

Providing services to students with communication disorders, such as ASD, requires time and effort for all involved. Treatment might not always result in dramatic gains, as hoped for, even with the best science-supported approaches. And parents might see another child with a similar disorder progressing more rapidly. In contrast, pseudoscientific treatments typically provide simple solutions, offer unwarranted reassurance, and provide evidence—without consideration of the type or quality of that evidence.

We live in the era of evidence-based practice. As audiologists and speech-language pathologists, we base our decisions on reliable sources of evidence. We also live in an era of declining trust in science, experts, and public institutions—accompanied by major changes in the media landscape (see "Does Truth Have a Future?" on page 42). Internet and social media, for example, generate an information explosion. Many

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people mistakenly believe they are an "expert." Parents especially get bombarded with information targeted to them or their child's specific needs based on their web search history.

Digital technology, particularly social media, allows rapid spread of misinformation.

In this environment, pseudoscientific treatments appear as viable alternatives to mainstream science. Messages—like the RPM video—spread rapidly without vetting by trusted gatekeepers. Humans are susceptible to natural thinking errors, sometimes leading to false beliefs. For example, we love a personal story, especially when someone overcomes a life barrier. We connect with stories and make sense of them.

In contrast, science-based evidence comes across as cold, characterless, and abstract. So people can mistakenly find individual stories more credible than scientific evidence. Pseudoscientific treatments—such as facilitated communication and RPM—endure because their inspiring stories convince, even when these methods get discredited by compelling scientific evidence.

Q How can we begin to counter the prevalence of pseudoscientific claims from parents and school staff?

Encourage colleagues, supervisors, and parents to have a sense of healthy skepticism about online information. Maintain open-mindedness and critical thinking throughout the school year, not just when someone brings you a video or story of a "quick cure." Developing critical thinking strategies—and remaining an open, fair-minded, yet amiable skeptic—will help people recognize and avoid pseudoscientific claims. If you talk with colleagues and parents about viewing viral videos and other sensational internet stories with healthy doubts, they can learn to look more closely at the quality of reasons claimed to support a treatment.

You can also acknowledge that no one can know everything, and we learn best when we learn from our mistakes.

In addition to promoting healthy skepticism, take time to help parents—and remind school staff—to learn to recognize warning signs distinguishing science from pseudoscience. Ask them to look for exaggerated treatment claims and slick sales pitches. Help them recognize common thinking errors—such as finding "stories" more credible than "statistics." We can also draw attention to how social media posts often portray negative views about scientific and helping professions.

Q How can we help stop the spread of pseudoscience?

These recommendations aren't a cure-all to preventing the influence of pseudoscience, but they make an important starting point. Try using some of these strategies to support facts:

Debunk erroneous beliefs with a counter-narrative or story, especially one validating a parent's values. Personal stories make powerful persuasion tools. For example, describe how an SLP helped a child communicate using a scientifically supported assistive technology, allowing the child to engage more effectively with teachers academically, interact with classmates socially, and share their experiences with parents.

Foster a healthy distrust of erroneous claims of pseudoscience. Many pseudoscientific treatment claims sound too good to be true or offer only positive client testimonials. An audiologist or SLP can present a gentle counter-argument to the pseudoscientific worldview—a world where everyone's dreams come true. Instead, we can suggest such a rosy view doesn't seem consistent with our everyday experience.

No student succeeds at anything instantly. Help parents and administrators appreciate their child's hard-earned gains—even seemingly small ones—and understand how they can build on those. Share an appreciation of a more balanced view of a complex—but manageable—world.

Avoid repeating misinformation associated with pseudoscientific claims. Repeating the information might inadvertently reinforce the simplistic claims of pseudoscience. Instead, focus on repeating and reinforcing correct information: "This well-supported treatment can make a positive change in your child's ability to communicate with teachers, classmates, and you. We want to make real and lasting difference in your child's life using science-supported methods and proven strategies rather than wishful thinking."

Educational audiologists and school-based SLPs understand how much effort it takes from professionals and parents to help a student with a communication disorder succeed academically and socially. However, we work in a science-based profession and can authoritatively share evidence-based research effective for enhancing communication skills. Doing so will help school administrators and parents embrace this body of scientific evidence and learn to avoid pseudoscientific claims.

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