

From the Editor

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Pot for Tots: Children and Medical Marijuana

Since he was just a few months old, 10-year-old Zaki Jackson has suffered from a rare form of epilepsy that, at its worst, causes him to have thousands of seizures a day. The seizures, which his mother describes as a "full body electrocution," render him unable to talk or walk, and sometimes cause him to stop breathing (Schwartz, 2014).

or 10 years, Zaki's family tried to combat his syndrome with 17 different pharmaceutical medications, a specialized diet, and alternative forms of therapy, such as acupuncture. The various medications caused weight gain, incoherency, extreme cramping, and sleeplessness; they never stopped the seizures. Today, Zaki is among more than 180 Colorado children currently being treated with a special strain of medical cannabis known as "Charlotte's Web," named for 7-year old Charlotte Figi, whose successful treatment was featured in a 2012 CNN documentary called "Weed." In the year since Zaki began treatment, he has been seizurefree (Schwartz, 2014).

Should Children Have Access to Medical Marijuana?

Medical marijuana for adults has gained acceptance across the United States. A recent survey of a randomized sample of over 1,000 registered voters revealed that 85% of Americans think adults should be allowed to use marijuana for medical purposes if a physician prescribes it (Fox News Poll, 2013). Today, 20 states and the District of Columbia (see Figure 1) have legalized medical marijuana (ProCon.org, 2014).

What about children? Should they, too, have legal access to medical

marijuana? Certainly, Zaki's life-altering story would make one think so. Anecdotal evidence indicates the effectiveness of medical marijuana in the treatment of various disorders or diseases. For instance, a liquid, nonpsychoactive form of marijuana was found to reduce seizures for children with Dravet's syndrome, a rare form of childhood epilepsy (Melville, 2013). Reports have suggested possible benefits of using marijuana in the treatment of children with autism (Gillette, 2013), cancer (Szalavitz, 2012), attention-deficit hyperactivity disorder (Centonze et al., 2009), as well as other conditions.

Unfortunately, there is limited high-quality evidence about the efficacy of medical marijuana. For example, a 2012 Cochrane review of all published randomized-controlled trials involving the treatment with marijuana or one of marijuana's constituents in people with epilepsy stated that no reliable conclusions could be made at present regarding the efficacy of cannabinoids as a treatment for epilepsy (Gloss & Vickrey, 2012). All of the reports were of low quality.

Importantly, there are virtually no data about the safety of using marijuana or cannabinoids with children (Melville, 2013). While some experts caution that the effects of the drug on child development are unknown, others point out that the same is true for other medications used to fight pain and nausea that are currently given to children with cancer, as well as for powerful antipsychotic drugs that are used in long-term treatment of childhood mental illness (Szalavitz, 2012). Morphine, oxycodone (Oxycontin®), and other opioid drugs that are sometimes used to treat the severe pain that accompanies life-threatening cancer and other diseases can cause overdoses.

Addiction rates are often lower

with marijuana than those with opioid drugs, and the severe physical withdrawal symptoms associated with opioids are not seen with marijuana. Opioids can cause nausea and vomiting, while marijuana reduces the risk of these symptoms that frequently occur as side effects of radiation or chemotherapy (Szalavitz, 2012).

Clark (2003) considers the failure to give an effective therapy to seriously ill patients, whether adults or children, as a violation of the core principles of both medicine and ethics:

Medically, to deny physicians the right to prescribe to their patients a therapy that relieves pain and suffering violates the physicianpatient relationship. Ethically, failure to offer an available therapy that has proven to be effective violates the basic ethical principle of nonmaleficence, which prohibits the infliction of harm, injury, or death and is related to the maxim primum non nocere ("above all, or first, do no harm"), which is widely used to describe the duties of a physician. Therefore, in the patient's best interest, patients and parents/surrogates have the right to request medical marijuana under certain circumstances, and physicians have the duty to disclose medical marijuana as an option and prescribe it when appropriate. The right to an effective medical therapy, whose benefits clearly outweigh the burdens, must be available to all patients, including children. (p. ET 1)

Acknowledging that children may benefit from medical marijuana, individuals and groups are advocating for legalization of its use with children. Moms for Medical Marijuana – an alliance of mothers, community leaders, and concerned parties – are advancing the equal treatment of medical marijuana patients and providers (Moms for Medical Marijuana, n.d.). Medical organizations, such as the American Academy of Pediatrics (AAP), while opposing the legalization of marijuana, supports rigorous scientific research regarding the use of cannabinoids for the relief of symptoms not currently ameliorated by existing legal drug formulation (Jacobs et al., 2004).

Unintended Exposure To Medical Marijuana

While the controversy regarding medical marijuana for children continues, other concerns regarding adults using medical marijuana can have implications for children living in or visiting their homes. Wang (2013) describes a new appearance of unintentional marijuana ingestions by young children after decriminalizing medical marijuana in Colorado. In October 2009, when the Justice Department instructed federal prosecutors not to seek arrest for medical marijuana users and suppliers, the issuance of the number of medical marijuana cards increased to 60,000, up from 2,000 in 2001. Medical marijuana was now present in a greater number of homes, including homes with young children.

Wang (2013) conducted a retrospective cohort study at a tertiary care, free-standing children's hospital. The study included patients younger than 12 years evaluated for suspected unintentional marijuana ingestion from January 1, 2005, through December 31, 2011. Findings revealed that between January 1, 2005, and September 30, 2009, no patients younger than 12 years sought care at the emergency department for marijuana ingestion. However, between October 1, 2009, and December 31, 2011, 14 patients younger than 12 years had confirmed marijuana ingestion by urine toxicology screen. Ages ranged from eight months to 12 years, and 64% were males. Most patients had central nervous system effects, such as lethargy or somnolence; the most serious symptom was respiratory insufficiency. Of the medical marijuana exposures, seven were from food products. Wang (2013) believes that this increase in marijuana exposure in young children in

Figure 1.
Legal Medical Marijuana States,
Including the District of
Columbia

Alaska
Arizona
California
Colorado
Connecticut
District of Columbia
Delaware
Hawaii
Illinois
Maine
Massachusetts

Michigan Montana Nevada New Hampshire New Jersey New Mexico Oregon Rhode Island Vermont Washington

Colorado is most likely due to the decriminalization of medical marijuana in 2009.

Improved palatability of medical marijuana may also be related to the increase in pediatric exposures. Medical marijuana is sold in many products besides plant and cigarette form, including edibles such as candies, baked good, and soft drinks, which likely increases attractiveness to young children. In fact, in Wang's (2013) study, most exposures were due to ingestion of medical marijuana in a food product. Regulations are needed on storing medical marijuana products in child-resistant containers, including labels with warnings or precautions, and providing counseling on safe storage practices.

Implications for Pediatric Nursing

With an overwhelming majority of Americans in favor of legalizing medical marijuana, I envision more states joining the roster. As in the past, parent advocacy will be responsible for many significant changes. Parents looking for hope for their children are already moving to states that have legalized medical marijuana for children to enable their children to receive treatments unavailable to them at home. Some parents will not want to or may be unable to leave their homes to take such drastic action, and will unite to advocate for decriminalizing medical marijuana for children in their states.

To provide sound guidance to parents, we need to stay informed about current research findings regarding medical marijuana and our own individual state's policies. We also have a role in reducing unintentional inges-

tion of medical marijuana by advocating for regulations on and providing information about safe storage of medical marijuana products. Nurses can ask specifically about medical marijuana in the home. Families may be reluctant to report its use to health care providers because of a perceived stigma. The third person technique may be helpful: "Many families have members who are now using medical marijuana because they are not able to adequately control their symptoms with traditional medications. I wonder if that is the case in your family."

The train has left the station. The children we care for must not be left behind.

References

Centonze, D., Bari, M., Di Michele, B., Rossi, S., Gasperi, V., Pasini, A., ... Maccarrone, M. (2009). Altered anandamide degradation in attentiondeficit/hyperactivity disorder. *Neurology*, 72(17), 1526-1527.

Clark, P. (2003). Medical marijuana: Should minors have the same rights as adults? Medical Science Monitor, 9(6), ET 1-9.

Fox News Poll. (2013). Fox News Poll: 85 percent of voters favor medical marijuana.

Retrieved from http://www.foxnews.com/politics/interactive/2013/05/01/foxnews-poll-85-percent-voters-favor-medical-marijuana

Gillette, H. (2013). Parents use liquid medical marijuana to calm autistic boy's rage. Saludify. Retrieved from http://voxxi.com/2013/02/25/medical-marijuana-autistic-child

Gloss, D., & Vickrey, B. (2012). Cannabinoids for epilepsy. *Cochrane Database of Systematic Reviews, 6*, CD009270. doi: 10.1002/14651858.CD009270.pub2

Jacobs, E., Joffe, A., Knight, J., Kulig, J., Rogers, P., & Williams, J. (2004). Legalization of marijuana: Potential impact on youth. *Pediatrics*, 113(6) 1825-1826.

Melville, N. (2013). Seizure disorders enter medical marijuana debate. *Medscape*. Retrieved from http://www.medscape.com/viewarticle/809434_print

Moms for Medical Marijuana. (n.d.). Facebook. Retrieved from https://www. facebook.com/pages/Moms-for-Medical-Marijuana/103263843067026

ProCon.org. (2014). *Medical marijuana*. Retrieved from http://medicalmarijua-na.procon.org/view.resource.php?resourceID=000881

Schwartz, C. (2014). Meet the children who rely on marijuana to survive. *Huffington Post*. Retrieved from http://www.huffingtonpost.com/2014/01/31/cannabis-forchildren_n_4697135.html

Szakavitz, M. (2012). Is medical marijuana safe for children? *TIME*. Retrieved from http://healthland.time.com/2012/11/28/i s-medical-marijuana-safe-for-children

Wang, G. (2013). Pediatric marijuana exposures in a medical marijuana state. *JAMA Pediatrics*, 167(7), 630-633.

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