

Nemours Children's Health Study Shows Clinician and Parent Perceptions May Lead to Less Frequent Diagnoses of Pediatric Hypertension

WILMINGTON, Del. (December 16, 2024) — A [study](#) by Nemours Children's Health researchers published in *JAMA Network Open* suggests that parents' and physicians' perceptions about hypertension in children may lead clinicians to downplay high blood pressure readings during routine clinic visits in children, leading to less frequent diagnoses of hypertension.

"Hypertension in children is more common than people might think. About 3 to 5% of the pediatric population has this condition, and the prevalence is increasing due to obesity," said the study's lead author, Abbas Zaidi, MD, Pediatric Cardiologist with Nemours Children's Health, Delaware Valley. Zaidi said hypertension often has no symptoms in children, and if left untreated, can lead to hypertension in adulthood, resulting in organ damage to the heart, kidneys and brain.

"Previous research has shown that hypertension is underdiagnosed in children, with only 25% of children who have it receiving an official diagnosis," he said. "What's more, 60% of children who are diagnosed with hypertension receive no recommended follow-up and management. Improved detection and treatment are critical to children's health, to prevent long term health consequences."

In this study, Zaidi and colleagues interviewed healthcare clinicians as well as parents of children in the Nemours Children's Health system to assess their knowledge and perceptions of childhood hypertension and understand what might be leading to underdiagnoses.

This study was based on interviews with 13 parents of children who had been diagnosed with hypertension following multiple repeated high blood pressure readings but had not received follow-up care, as well as 25 clinicians from 10 Nemours primary clinics in Delaware and Pennsylvania. Researchers conducted 30- to 45-minute telephone interviews between November 2022 and March 2023.

The researchers found:

- Many parents were aware of the dangers of hypertension due to a personal or a family history of the disease, yet did not think children could be diagnosed with it.
- Both parents and clinicians downplayed the significance of high blood pressure readings during routine checkups. Parents attributed high readings to anxiety, or an incorrect reading in the clinic. Clinicians often cited "white coat syndrome," in which patients get nervous in the presence of physicians.
- Physicians noted that other priorities, such as administering vaccinations for younger patients and addressing mental health concerns for adolescents, often take precedence during these appointments.
- Even when diagnosed, many parents and clinicians expressed reluctance to use medication to treat hypertension in children, due to concerns about side effects and dependence on medications, instead preferring diet or exercise modifications.
- Parents expressed high degrees of trust in their health care providers. Many had strong long-term relationships with their physicians and were likely to accept a physician's statement that a high blood pressure reading was due to anxiety.

Zaidi emphasized that addressing pediatric hypertension is a multifaceted challenge that requires a thorough understanding of the perceptions held by both parents and clinicians. "This study highlights the critical importance of the physician-parent relationship and the need for open-ended questions and meaningful dialogue in clinical settings," Zaidi said. By fostering open communication, parents can feel more confident asking questions about their child's health, and practitioners can take proactive steps, such as repeating blood pressure readings, to ensure an accurate assessment of the patient's well-being.

"If we can identify and treat hypertension at earlier ages, patients will benefit from lifestyle counseling," Zaidi said. "There are potential benefits not just for the child, but for the entire family if we can counsel them about healthy eating and other proven strategies such as reducing salt and maintaining active lifestyles. For patients who do not improve with these modifications, medication may be prescribed, and open communication can allay concerns about that especially related to side effects."

Zaidi said future research will examine the effectiveness of implementation strategies to identify and treat hypertension in pediatric patients. For example, rechecking blood pressures in settings more comfortable to the child may allow for better trust by the parent and clinicians to diagnose hypertension and develop a management plan.

About Nemours Children's Health

Nemours Children's Health is one of the nation's largest multistate pediatric health systems, which includes two freestanding children's hospitals and a network of more than 70 primary and specialty care practices. Nemours Children's seeks to transform the health of children by adopting a holistic health model that utilizes innovative, safe, and high-quality care, while

also addressing children's needs well beyond medicine. In producing the highly acclaimed, award-winning pediatric medicine podcast Well Beyond Medicine, Nemours underscores that commitment by featuring the people, programs and partnerships addressing whole child health. Nemours Children's also powers the world's most-visited website for information on the health of children and teens, Nemours KidsHealth.org.

The Nemours Foundation, established through the legacy and philanthropy of Alfred I. duPont, provides pediatric clinical care, research, education, advocacy, and prevention programs to the children, families and communities it serves. For more information, visit Nemours.org.

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