

Abstract

Background and Purpose: Hypertension and prehypertension in adolescents are under diagnosed, likely because of decreased recognition of elevated blood pressure. Hypertension in children and adolescents is becoming a major concern. Asymptomatic screening is imperative in deciphering potential risks. Early detection, intervention, and mitigation of adverse health outcomes positively impacts the quality of life of adolescents as they transition to adulthood. The purpose of this quality improvement project was to implement a clinical algorithm based on the AAP Clinical Practice Guidelines to improve clinician recognition of elevated blood pressure in the primary care setting for adolescent children ages 11-21 years.

Methods: This project utilized a pretest/posttest interventional design. A chart review of two randomly selected groups within the ages of 11-21 were used (n=44) to assess adherence at baseline, and post intervention. Clinician (n=11) attitudes towards evidenced-based practice was also assessed in a pre- and post-intervention survey utilizing the EBP Attitudes Scale. The intervention included an educational training on the basics of blood pressure measurement, patient position, equipment, AAP Guidelines, and strategies to garner family/patient participation. A clinical algorithm was introduced to facilitate office flow and decision making.

Results: A total of 11 participants were recruited from a single pediatric primary care practice located in the mid-Atlantic region of the United States. All participants completed the intervention and post-intervention survey. Adherence rates increased minimally overall. There was statistically significant improvement in the areas of discussion lifestyle modification (68.2% to 95.5%) $p < .001$ and follow up of abnormal blood pressure readings by 35%. Attitudes of clinicians were supportive of evidenced-based interventions and demonstrated no significant change.

Conclusion: Findings suggest that the use of a concise algorithm and evidenced based education supported appropriate clinical decision making. Further clinician support which incorporates the EHR, and clinical decision-making tools will be beneficial in the delivery of quality care.

Keywords: adolescent, blood pressure, clinical practice guidelines, adherence, pediatric, hypertension