Leveraging ADHD Neurobiological Insights to Drive Value-Based Healthcare; Olumuyiwa Bamgbade, Salem Pain Clinic Canada

Synthesizing ADHD etiology, neurobiology, and treatment innovations can promote value-based care for ADHD patients; Olumuyiwa Bamgbade, Salem Pain Clinic Canada

SURREY, BC, CANADA, July 10, 2025 /EINPresswire.com/ -- Value-based healthcare (VBHC) emphasizes tailoring treatments to individual needs to maximize effectiveness and resource use. A recent medical research publication provides insights to transform attention-deficit/hyperactivity disorder (ADHD) from a fragmented care challenge to a model case for VBHC. A multinational team, including Dr. Olumuyiwa Bamgbade of the research-focused Salem Anaesthesia Pain Clinic, published the peer-reviewed scientific article.

> Transforming ADHD care through neuroscience isn't just a medical advancement; it's a value-based promise to meet each child's potential with precision, compassion, and accountability"
>
> *Olumuyiwa Bamgbade*

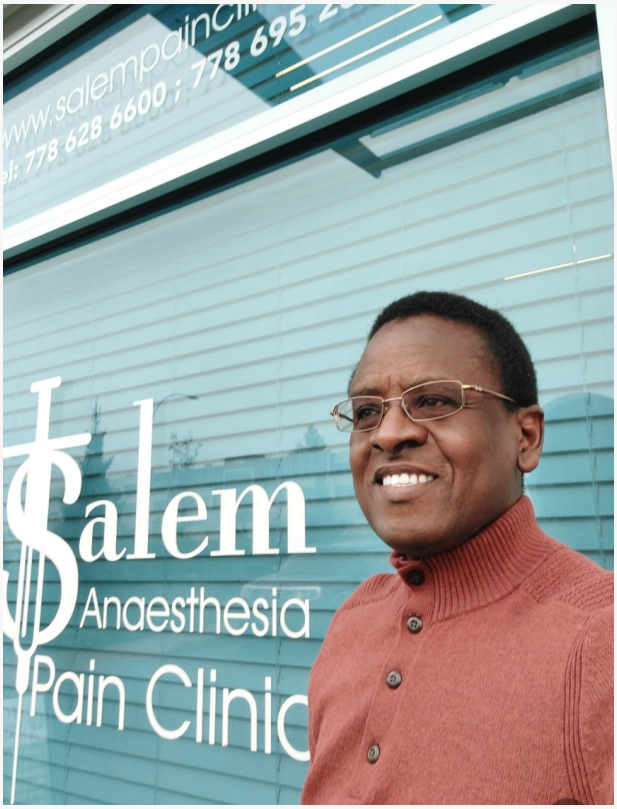
The article's emphasis on genetic, epigenetic, and neurotransmitter dysregulation highlights the importance of precision medicine in ADHD. By identifying biomarkers and developmental profiles, clinicians can avoid costly "trial-and-error" prescribing and adopt evidence-based pathways such as stimulant vs. non-stimulant therapy, digital therapeutics, or neurofeedback. Consequent VBHC improves clinical outcomes and reduces downstream costs related to school failure, mental health deterioration, and criminal justice involvement.

The publication presents opportunities to rethink how care for ADHD is delivered within VBHC frameworks, where outcomes, patient satisfaction, and cost-effectiveness define quality rather than volume of services. Transitioning ADHD care into the VBHC model requires integrating the study's findings to foster individualized, efficient, and outcome-oriented care.

The neuroimaging and brain network findings discussed in the article underscore the critical role of objective diagnostics in early ADHD detection. VBHC encourages proactive screening and prevention. Health systems can use resting-state fMRI, EEG classifiers, and eye-tracking tools to identify high-risk children earlier, leading to interventions that improve long-term functioning and mitigate comorbidities. In VBHC terms, this represents a shift from high-cost, reactive care to

low-cost, preventive value creation.

The study also gives weight to non-pharmacological innovations like digital therapeutics, cognitive behavioral therapy, and neuromodulation. These align perfectly with VBHC goals: they offer scalable, low-risk, patient-centered approaches that engage families, reduce medication dependence, and enhance self-regulation. Coverage policies and reimbursement structures should adapt to support these high-impact, non-invasive interventions, ensuring equity in access across socioeconomic groups.



Olumuyiwa Bamgbade

Integrating multi-omics and artificial intelligence provides a blueprint for developing learning health systems, where ADHD management continuously improves through data feedback loops. VBHC thrives in such ecosystems: real-world data from schools, clinics, and telehealth platforms can be analyzed to refine care models and improve population-level outcomes. This convergence of science and practice supports not only ADHD management but broader goals of adaptive, outcome-focused health reform.

By embedding precision diagnostics, early interventions, digital therapeutics, and personalized treatment pathways into routine care, healthcare systems can improve the lives of individuals with ADHD while optimizing resource allocation. This evidence-based, patient-centered approach exemplifies how molecular neuroscience can inform smarter, more humane, and more cost-effective healthcare for neurodevelopmental disorders in the value-based era.

Dr. Bamgbade is a healthcare leader with an interest in value-based healthcare delivery. He is a specialist physician trained in Nigeria, Britain, the USA, and South Korea. He is an adjunct professor at institutions in Africa, Europe, and North America. He has collaborated with researchers in Nigeria, Iran, Armenia, Zambia, China, Rwanda, the USA, Kenya, South Africa, Britain, Tanzania, Namibia, Australia, Botswana, Mozambique, Ethiopia, Jamaica, and Canada. He has published 45 scientific papers in PubMed-indexed journals. He is the director of Salem Pain Clinic, a specialist and research clinic in Surrey, BC, Canada. Dr Bamgbade and Salem Pain Clinic focus on researching and managing pain, insomnia, value-based care, health equity, injury rehabilitation, neuropathy, societal safety, substance misuse, medical sociology, public health, medicolegal science, and perioperative care.

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