Researchers highlight the concerning 20-year knowledge gap on young adult brain health
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Researchers at the Global Brain Health Institute (GBHI) at Trinity College have highlighted a stark knowledge gap on brain health spanning 20 years in young adults, in an editorial recently published in the British Medical Journal (BMJ).

The editorial is a call to action for an increased research focus on young adult brain health.

Research on risks to brain health continues to focus on middle aged and older adults, despite early detection and management of risk factors being the best way to prevent neurodegenerative changes that cause clinical dementia in later life.

Good brain health is a state of optimal cognitive, sensory, social-emotional, and behavioral functioning. Understanding brain health in young adults is critical as they have the opportunity to make early and long term changes to minimize risk of developing dementia.

Young adults (born between 1981–2004) account for more than 30% of the world’s population. The widespread and serious consequences of the COVID-19 pandemic on mental health, as well as access to education and employment—all of which negatively impact brain health—are factors of great concern in this group.

The research team point to many risk factors, including obesity, smoking, and head injuries, which begin accumulating in young adulthood. Associations between estrogen and risk of Alzheimer’s disease (the most common cause of dementia) also suggest a need to explore the effects of older age at childbirth, increasing use of in vitro fertilization, and early menopause on brain health.

Professor Brian Lawlor, Conolly Norman Professor of Old Age Psychiatry, Trinity College, Deputy Executive Director, GBHI said, “If we are to truly change the narrative around brain health and dementia prevention, the story must resonate with the next generation. That’s why we need to reframe, co-produce and amplify the life course brain health message with young adults.”

**Key highlights**

- There is a 20-year knowledge gap when it comes to brain health in young adults. [Most research focuses on either childhood, or middle-aged and older adults]
- Gathering more data on young adults will...
require researchers across multiple disciplines to add brain health measures (e.g., cognitive, and mental health outcomes) to existing studies, along with lifestyle and environmental exposures. Sustained investment in large interventional trials is also required.

- Characterizing cumulative risks to brain health from an early age will inform both primary and secondary prevention of dementia as many of these factors begin accumulating in young adulthood. [For example, obesity, smoking, and head injuries].
- Young adults are digitally literate and broadly health conscious, so can be active agents in monitoring their own brain health risks. This demands a precision public health approach, which considers individual variability in genes, environment, and lifestyle to deliver the right intervention to the right person at the right time.
- Community based services for managing brain health provide new opportunities for early risk profiling and communication. This will generate large amounts of data to advance our understanding of the epidemiology of dementia and the efficacy of interventions.

Dr. Francesca Farina, Global Atlantic Fellow for Equity in Brain Health, GBHI, Assistant Professor, Northwestern University, said, "As the next generation, young adults are ideally placed to lead a positive brain health movement, but we know very little about the factors that affect brain health in this group. Increasing research focus on young adult brain health will not only inform disease prevention in later life, but also, have broad benefits for mental health and well-being across the lifespan."

Dr. Laura Booi, Global Atlantic Fellow for Equity in Brain Health, GBHI, Senior Research Associate, Leeds Beckett University, said, "Millennials and Generation Z are already shouldering the climate change catastrophe and now another economic recession. Fostering brain health awareness, strengthened with empirical evidence to support their current and future brain health is of the utmost importance."

The editorial, "Brain Health in Young Adults," has been published in the British Medical Journal.


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