

Diet's impact on cognitive health in older adults at risk of dementia

A study featured in The New England Journal of Medicine explored the potential link between diet and the risk of dementia in older adults. While previous research indicated that diet might influence dementia risk, it remained uncertain whether dietary changes could directly enhance cognitive function. The study involved 600 overweight older adults, averaging 70 years of age, who had a family history of dementia.

These participants were split into two groups: one following the MIND diet, a blend of the Mediterranean and DASH diets, and the other practising portion control on its own. Over the course of 3 years, both groups received personalised weekly guidance from dietitians for the first 6 months, followed by biweekly sessions. Their target was to lose 3% to 5% of their initial weight. The MIND group received "brain-healthy" foods weekly, such as olive oil, blueberries, and mixed nuts, while the control group got gift cards.

After 3 years, both groups experienced improved cognitive scores across various aspects compared to their starting points. However, there was no notable difference in cognitive scores between the MIND diet group and the control group. Interestingly, both groups lost around 5 kilograms on average, and brain scans of a subset of participants showed similar results for both groups.

Adherence to the MIND diet was confirmed through surveys and biomarker measurements. The noteworthy aspect is that both groups demonstrated cognitive improvements. This suggests that cognitive benefits might be linked to dietary changes and weight loss, or possibly other unrelated behaviours that participants engaged in. Overall, the study sheds light on the complexities of diet, cognitive health, and weight loss among older adults with a familial risk of dementia.



Navigating the political economy of non communicable diseases

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In the 20th century, non-communicable diseases (NCDs) emerged to take control of the epidemiological landscape as a result of successive industrial revolutions and the ageing of the world's population. Instead of a relatively acute and brief course of diseases that were largely curable, NCDs brought predominantly lifelong illnesses that were incurable, which increased the demand for chronic medical expenses. In the realm of global development, the MDGs overlooked the dark threads of NCDs, but with the advent of the SDGs, a new dawn of awareness emerged, requiring urgent attention from the country's leaders and policymakers. And for developing comprehensive strategies to address this growing health crisis, it is important to understand its political economy.

The perspective of the political economy of NCDs refers to the route-turn where the health risk

(e.g., behavioural or biological) of an individual connects with political and economic structures and practises. Viewpoint question includes, for example, how do political decisions and economic priorities interact to influence the surroundings in which people live? For instance, political choices motivated by desires to release the commercial sector from regulation have created an environment where it is challenging to make healthy choices.

Amidst the fabric of the nation's political economy, the fingerprints of industry and corporations can be found, each thread leaving its mark on consumer choices and lifestyle patterns. In such a setting, the objective of public health regulation to limit consumption of products that increase NCD risk creates a real dilemma for governments, with an apparent tradeoff between profits and public health interests. Industries that profit from the continuation of behaviours that increase the risk of developing NCDs are all significant

contributors to GDP and job creation in the country. Instead of fresh and unprocessed food, highly processed foods, for example, have better profit margins due to their lengthy shelf lives. This perception of profit overlooks the adverse consequences, such as poor health, social costs, and lost productivity, that result from consuming unhealthy foods.

Companies with a stake in these products frequently drown out the voice of the health sector when it calls for policy changes in economic sectors that will lower consumption of profitable products. Thus, for more effective and progressive policies and dynamic collaborations in the arena of NCD control and prevention, we must delve deeper into the nexus of politics, economics, and public health, scripting a tale of resilience and well-being for generations to come.

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HAVE A NICE DAY The butterfly effect

DR RUBAUL MURSHED



Cloudy weather during the World War II led to a fateful shift in plans, sparing Kuroko from destruction and changing history. Nagasaki became the target instead, highlighting the immense impact of split-second decisions. This incident, akin to 'the butterfly effect,' continues to resonate with Kuroko's inhabitants, reminding us of history's delicate balance.

The butterfly effect, a part of chaos theory, states that predictions have limitations even in small, discrete systems. It was summarised by Edward Lorenz, the meteorologist who discovered it. He noted that a tiny change in the initial conditions had enormous long-term implications. By 1963, he had formulated enough ideas to publish an award-winning paper. For



instance, when a butterfly flaps its wings in Cox's Bazar, that tiny change in air pressure could eventually cause a tornado in Florida. That means something minor, like a small mosquito bite, can have much more significant effects, such as putting someone's health in danger, called the butterfly effect.

The butterfly effect rests on the idea that the world is deeply interconnected; such a tiny occurrence can influence a much larger, complex system with enormous long term implications.

Although chaos theory was the initial term, complexity science, or complex systems theory, is often used to describe chaotic behaviour. Around the world, people view the butterfly symbol as representing resolution, hope, and life. It also represents a state of naturalness and purity. But in reality, this theory teaches us that 'small things matter', and we are all 'connected to a bigger system'.

Our action now, today, would have been the result of a previous action, and this could, in turn, lead to future action. And with a small gesture, someone can change somebody's life.

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The National Guidelines on Diabetes Mellitus were launched

STAR HEALTH REPORT

The Japan International Cooperation Agency (JICA) and the Diabetic Association of Bangladesh (BADAS) have provided technical support to the Non-Communicable Disease Control (NCDC) to develop a National Guideline on Diabetes Mellitus, says a press release. The guideline was launched on August 6, 2023, and it will help guide Bangladeshi physicians to choose adequate treatment for managing their patients.

Diabetes is a long-lasting illness that requires continuous medical care and patient self-management education for optimal management outcomes and to reduce the risk of complications. The International Diabetes Federation (IDF) reported that Bangladesh is in the 8th position in the world ranking, with 13.1 million people having diabetes.

JICA's technical cooperation project for 'Strengthening Health Care Systems for Organising Communities' (previously known as SHASTO) closely worked with the NCDC and the Directorate General of Health Services (DGHS) to develop and implement the NCDC's programme activities, including promoting the NCD management






model to prevent hypertension and diabetes.

Regarding the launch, Mr KOMORI Takashi, Senior Representative, Japan International Cooperation Agency, said, "JICA is pleased to provide technical support to NCDC, DGHS, BADAS, and the Government of Bangladesh to establish the National Guideline on Diabetes Mellitus to help the physicians offer appropriate treatment to the patients. We hope the guidelines will help healthcare professionals ensure high-quality healthcare services, improving patient outcomes and quality of life. We all want to strengthen the healthcare system in Bangladesh. We are also looking forward to launching The Project to Strengthen

Healthcare Systems for Preventing Non-communicable Diseases (SHASTO2) this month. It will be part of our continuous alliance with the Ministry of Health and Family Welfare (MoHFW)."


The National Guideline on Diabetes Mellitus would provide evidence-based guidance for diagnosing, preventing, and managing diabetes in Bangladesh that has been tailored to local practises, needs, and resources. It would cover numerous aspects of diabetes care, including screening, risk assessment, glycemic control, use of medications, insulin therapy, lifestyle intervention, and managing diabetes-related problems such as retinopathy, neuropathy, and nephropathy.



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Daily multivitamins may offer modest cognitive benefits for older adults

Recent articles in Alzheimer's and Dementia and the American Journal of Clinical Nutrition shed light on the potential benefits of daily multivitamin supplementation for older individuals' cognitive health. While randomised trials have generally shown the limited advantages of multivitamins, these studies suggest a nuanced perspective.

Two separate trials, each spanning three years, examined the effects of a comprehensive daily multivitamin regimen containing vitamins A, B12, C, D, E, biotin, potassium, magnesium, and zinc on cognitive function in older adults.

In the first trial, involving

2,262 participants with an average age of 73, individuals were randomly assigned to either take the multivitamin or a placebo. Initially, both groups

showed comparable cognitive scores, but after three years, the multivitamin group exhibited a significantly higher combined cognition score. Notably, this improvement was more noticeable

among participants with existing cardiovascular disease.

The second trial engaged 3,562 participants with an average age of 71, none of whom had a history of heart attack, stroke, or invasive cancer. Over the course of three years, their cognitive abilities were repeatedly assessed. Interestingly, those taking multivitamins outperformed the placebo group on a test involving the immediate recall of 20 words.

In summary, while the benefits of multivitamins for cognitive function in older adults appear modest and are expressed through specialised measures, these trials offer a fresh perspective on potential cognitive health advantages.