Weekly Nature Visits May Boost Physical, Mental Health: Study

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LONDON - People who make weekly visits to natural spaces, and feel connected to them, report better physical and mental wellbeing, according to a study.

Researchers, including those from the University of Plymouth in the UK, also found that people who make nature visits are more likely to behave in ways which promote environmental health, such as recycling and conservation activities.

The study, published in the Journal of Environmental Psychology, suggests that reconnecting with nature could be key to achieving synergistic improvements to human and planetary health.

It is the first study to analyse the contribution of both contact of nature and connection to human health, wellbeing and pro-environmental behaviours, the researchers said.

The team looked at people"s engagement with nature though access to green spaces, nature visits and the extent to which they felt psychologically connected to the natural world.

"In the context of increasing urbanisation, it is important to understand how engagement with our planet"s natural resources relate to human health and behaviour," said lead author Leanne Martin, from the University of Plymouth.

"Our results suggest that physically and psychologically reconnecting with nature can be beneficial for human health and wellbeing, and at the same time encourages individuals to act in ways which protect the health of the planet," Martin said.

These findings provide vital new insights of the need to not just increase contact with nature, but about the sorts of experience that really help people build an emotional connection, said Marian Spain, Chief Executive of Natural England, the UK government"s adviser for the natural environment.

"This is key to unlocking health benefits as well as inspiring people to taking action

Intonation, Facial Expression Help Toddlers Detect Speaker's Politeness

Agencies

As children in their earlier stages of life express themselves through their facial expressions and gestures, they tend to understand the politeness of a speaker in the same way, suggests a study. Gesture and prosody play an important role in the development of children's communication skills. Studies have traditionally focused rather on the role played by these elements in the early acquisition of lexical and morphosyntactic elements and less at older ages when children use prosody and gesture to express pragmatic meanings such as politeness.

The study was published in the recent edition of the journal - Communication Research.

"Despite evidence that children are sensitive to facial gestures and prosody for detecting emotions until now there was conflicting evidence as to whether preschool children use these cues to deduce speakers' politeness", said the pioneer researcher Pilar Prieto.

A new study of which Iris Hubscher (University of Zurich, Switzerland, and UPF) is the first author and principal investigator, together with laura Wagner, co-author, and researcher at Ohio University (USA).

In this study, the researchers set out to investigate whether preschool children inferred a speaker's effective stance and degree of politeness taking into account the role of prosodic cues and facial expressions. This is the first study to show that three-year-olds or toddlers are sensitive to the meaning of politeness that is conveyed through intonation and facial cues.

For the study, they designed an experiment in which children listened to a request addressed to them, (either followed or not by please) delivered politely and impolitely. Thirty-six English-speaking children aged three years participated in this experiment to find out if children deduced a speaker's politeness through intonation and/or facial gestures and in different formats, both audio mode and visually and in both modes simultaneously.

The results of the study show that children of age three can be recognized politeness through such prosodic cues as intonation, visual cues such as facial expressions, and the two together, and most importantly, unlike previous studies, the study shows that both intonation and facial expression are equally strong signals to make children understand the polite stance of a speaker.

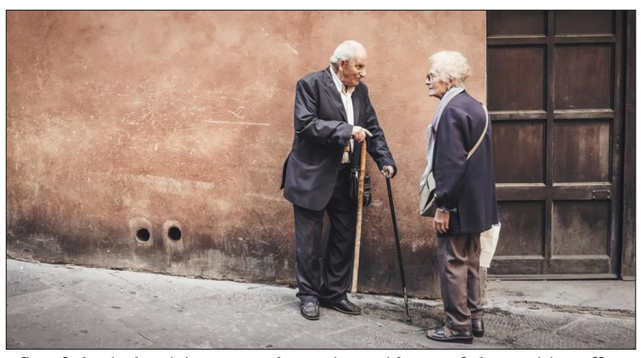
This has implications for parents, carers and preschool teachers because it suggests gaining awareness of children's social and pragmatic behavior, which often only focuses on verbal content", highlights Hubscher, the principal investigator of the study. Furthermore, Pilar Prieto also says that the study highlights the importance of sensitizing children to the great possible variety of expressions of politeness and not only to verbal contents such as the use of 'please'.

The researchers point out that in the future it would be interesting to compare English-speaking American children with children who speak other languages, to see if these results are comparable or if there are intercultural differences in children's development in the understanding of politeness, as well as studying the development of politeness in broader age brackets.

Physically Active Older Adults Less Prone To Health Risks

Agencies

A study highlights that physically active older adults, aged 60 or above, have reduced risk of early death, breast and prostate cancers, depression, functional limitations, and cognitive decline. The findings come from a review of all published reviews of studies that assessed the relationship between physical activity and health in adults aged 60 years or older. The study was published in the Scandinavian Journal of Medicine & Science in Sports. The review also found that physically active older adults experience healthier ageing trajectories, better quality of life, and improved cognitive functioning.



"This research highlights the benefits of physical activity to our physical and mental health in older age. For some time, we have known of the benefits of physical activity for our physical health; however, what is important about this research is that it highlights compelling emerging evidence of the positive effects of being physically active on our mental health -- including depression, cognition, and dementia and Alzheimer's disease," said lead author Conor Cunningham, PhD, of the Institute of Public Health in Ireland.

Mri Scans May Help Detect Breast Cancer Risk: Study

Agencies

Magnetic resonance imaging (MRI) scans can be used to identify several potentially useful biomarkers of breast cancer, which could help detect the disease early, according to a study.

Researchers from Memorial Sloan Kettering Cancer Center in the US compared healthy breast tissue of patients with malignant -- which can spread in the body -- and benign or non-cancerous breast tumours.

They found that multiple differences in biomarkers can be assessed with Positron-emission tomography (PET) or MRI imaging, which could help in the screening, and risk-reduction strategies.

In breast cancer, early detection remains key to improved prognosis and survival, according to the study published in The Journal of Nuclear Medicine.

While screening mammography -- which uses low-energy X-rays to examine the human breast -- has decreased mortality for breast cancer patients by 30 per cent, its sensitivity is limited and is decreased in women with dense breast tissue.

"Such shortcomings warrant further refinements in breast cancer screening modalities, and the identification of imaging biomarkers to guide follow-up care for breast cancer patients," said Doris Leithner, a research fellow at Memorial Sloan Kettering Cancer Center.

The study included 141 patients with imaging abnormalities on mammography or sonography on a tumour-free breast.

The patients underwent combined PET/MRI of the breast with dynamic contrast-enhanced MRI, diffusion-weighted imaging (DWI) and, the radiotracer 18F-FDG PET.

In all patients, several imaging biomarkers were recorded in the tumour-free breast, including background parenchymal enhancement, breast parenchymal uptake, and fibroglandular tissue.

Differences among the biomarkers were analysed by two independent readers, the researchers said.

In the contralateral breast tissue, background parenchymal enhancement, and breast parenchymal uptake were decreased and differed significantly between patients with benign and malignant lesions.

The contralateral breast cancer (CBC) is a tumour in the opposite breast which was diagnosed more than six months following the detection of the first cancer.

"Based on these results, tracer uptake of normal breast parenchyma in 18F-FDG PET might serve as another important, easily quantifiable imaging biomarker in breast cancer, similar to breast density in mammography and background parenchymal enhancement in MRI," Leithner explained.

"As hybrid PET/MRI scanners are increasingly being used in clinical practice, they can simultaneously assess and monitor multiple imaging biomarkers -- including breast parenchymal uptake -- which could consequently contribute to risk-adapted screening, and guide risk-reduction strategies," he said.

High Fibre Diets Can Lead To Bloating

Agencies

People who eat high fibre diets are more likely to experience bloating if their high fibre diet is protein-rich as compared to carbohydrate-rich, according to a new study.

For the study, published in the journal Clinical and Translational Gastroenterology, the researchers from Johns Hopkins University analysed data from a clinical trial of high fibre diets.

"It's possible that in this study, the protein-rich version of the diet caused more bloating because it caused more of a healthy shift in the composition of the microbiome," said study co-senior author Noel Mueller from Johns Hopkins University in the US.

"Notably, the protein in these diets was mostly from vegetable sources such as beans, legumes, and nuts," Mueller added.

High-fibre diets are believed to cause bloating by boosting certain populations of healthful fibre-digesting gut bacteria species, which produce gas as a byproduct.

The findings thus also hint at a role for "macronutrients" such as carbs and proteins in modifying the gut bacteria population--the microbiome.

In the study, the researchers examined a dietary clinical trial that was conducted in 2003 and 2005 in Boston.

Known as the Optimal Macronutrient Intake Trial to Prevent Heart Disease (OmniHeart), it included 164 participants who had above-normal blood pressure.

They were assigned to three different diets over consecutive six-week periods separated by two-week "wash-out" intervals during which participants returned to regular eating habits.

The diets were all considered high-fibre, low-sodium "DASH" diets, and had the same number of calories, but varied in their macronutrient emphases: a carbohydrate-rich version was, by calories, 58 per cent carbohydrate, 15 per cent protein, and 27 per cent fat; a plant-protein-rich version was 48 per cent carbs, 25 per cent protein, 27 per cent fat; and a fat-rich version was 48 per cent carbohydrate, 15 per cent protein, and 37 per cent fat.

The primary results of the OmniHeart trial, published in 2005, suggested that the plant-protein-rich and fat-rich diets were the most effective in reducing blood pressure and improving measures of blood cholesterol.

In their new analysis of this data, they examined how participants' reports of bloating--which were among the secondary data collected in that trial--varied as participants ate the three OmniHeart diets.

A key finding was that the prevalence of bloating went from 18 per cent before the diets to 24, 33, and 30 per cent, respectively, on the carb-, protein-, and fat-rich diets--indicating that these high fibre diets did indeed appear to increase bloating.