

HAWAI‘I JOURNAL WATCH

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Highlights of recent research from the University of Hawai‘i and the Hawai‘i State Department of Health

SOCIAL NETWORKS ARE IMPORTANT TO HAWAI‘I HOSPITAL PATIENTS

Interventions for Native Hawaiians and Other Pacific Islanders (NHOPI) with chronic health conditions should include their family members or close friends. Researchers led by Tetine Sentell PhD, of the Office of Public Health Studies, interviewed 22 people, most NHOPI, admitted to The Queen’s Medical Center for a potentially preventable hospitalization, meaning the condition could be managed with access to high-quality primary care. The interview asked about each patient’s health literacy and social network. Results showed many participants had low health literacy and at least 1 person in their social network who helped them with their health. Many, but not all, participants wanted the members of their social networks to be engaged in interventions aimed at improving their chronic condition management. Culturally relevant healthcare should incorporate patient preferences for including network members in interventions.

- Sentell TL, Agner JL, Davis J, et al. Social networks in patients hospitalized with preventable conditions for heart disease and diabetes in Hawai‘i by health literacy. *Chronic Illn.* 2021;1742395320987892. doi:10.1177/1742395320987892

NEW COMPOUNDS IDENTIFIED FROM FUNGI GROWING IN HAWAI‘I ISLAND CORAL

Ten new compounds were isolated from a fungus called *Xylaria* sp. FM1005, which grows symbiotically in leather coral in the off-shore region of Hawai‘i Island. Researchers led by KH Ahammad Uz Zaman, a PhD candidate with the Daniel K. Inouye College of Pharmacy analyzed the fungi using nuclear magnetic resonance spectroscopy and other methods. Results revealed 17 compounds, including 10 that were new to science. In *in vitro* studies, 2 of the compounds, which were structurally similar to the antiplatelet drug tirofiban, prevented the aggregation of rodent platelets by inhibiting the binding of fibrinogen to other proteins. Tests also showed the compounds were not toxic to human cells. The results suggest these compounds show potential for mediating the blood clotting process. More work is needed to identify biologically active compounds in Hawai‘i’s unique marine ecosystem.

- Zaman KAU, Park JH, DeVine L, et al. Secondary metabolites from the leather coral-derived fungal strain *Xylaria* sp. FM1005 and their glycoprotein iib/iiia inhibitory activity. *J Nat Prod.* 2021;84(2):466-473. doi:10.1021/acs.jnatprod.0c01330

LEADERSHIP CAN PROTECT AGAINST TURNOVER AMONG SOCIAL WORKERS

Turnover is common among frontline social workers, but those who are committed to remaining with their agencies also report strong agency leadership. Researchers including Francie Julien-Chinn PhD, of the Thompson School of Social Work & Public Health, surveyed 119 frontline child welfare staff members and asked about their job satisfaction, intent to stay, coping strategies, peer support,

leadership, and other factors. Results showed 39% of respondents said they were committed to staying at the agency. Commitment to stay was associated with reporting that the agency leadership ensures that high-quality programs and services are delivered, and that leaders clearly communicate the links between the agency’s vision and the work goals. The findings suggest that the actions of agency leadership can protect against the high turnover of frontline social workers.

- Katz CC, Julien-Chinn FJ, Walla E. Perceptions of agency leadership and intent to stay: An examination of turnover in the child welfare workforce. *Journal of Public Child Welfare.* 2021;DOI: 10.1080/15548732.2021.1876808

BODY FAT DISTRIBUTION PATTERNS LINKED TO TYPE 2 DIABETES IN JAPANESE INDIVIDUALS

The rate of type 2 diabetes in individuals of Japanese and other Asian ancestry may be partly driven by the pattern of fat accumulation in the body. Researchers led by Gertraud Maskarinec MD, PhD, of the University of Hawai‘i Cancer Center, looked at data from 1746 participants in the Adiposity Phenotype Study, a subset of the Multiethnic Cohort Study. Participants were of Japanese, white, Latino, African American, or Native Hawaiian ancestry. Results showed that the ratio of visceral adipose tissue (VAT) to subcutaneous adipose tissue (SAT) was highest in those with type 2 diabetes (T2D) across all ethnic groups. As the VAT/SAT ratio increased, rates of T2D rose, with each additional standard deviation of the VAT/SAT ratio associated with double the odds of T2D for the entire study population. However, among Native Hawaiians and Japanese Americans, the odds of T2D increased 2.5 times and 4 times, respectively, with each increase of 1 SD of the VAT/SAT ratio. The findings suggest that this body fat distribution pattern may drive the development of T2D in Japanese individuals to a greater degree than in other ethnic groups.

- Maskarinec G, Raquinio P, Kristal BS, et al. Body fat distribution, glucose metabolism, and diabetes status among older adults: The Multiethnic Cohort Adiposity Phenotype Study. *J Epidemiol.* 2021;10.2188/jea.JE20200538. doi:10.2188/jea.JE20200538

A COMMUNITY-CENTERED INTERVENTION FOR PASIFIKA PEOPLES IN NEW ZEALAND

Community-centered interventions to prevent diabetes should be culturally tailored to meet the needs of the community. Researchers including Joseph Keawe’aimoku Kaholokula PhD, of the John A. Burns School of Medicine, conducted a program evaluation by interviewing 21 participants in a program aimed at preventing diabetes in adults of Pasifika ethnicity in New Zealand. Results showed that most participants felt the program’s venue was accessible because it was community-based and familiar to them. Participants were motivated to take part in the program for the sake of community fellowship, and they found the physical activity portion of the program enjoyable because it was done as a group. Work-life balance, including the need to find child care, was a common barrier to participating in the program. The findings suggest that culturally relevant intervention programs should consider the values, beliefs, practices, and realities of the communities they serve.

- Firestone R, Faeamani G, Okiakama E, et al. Pasifika Prediabetes Youth Empowerment Programme: Learnings from a youth-led community-based intervention study. *N Z Med J.* 2021;134(1530):57-68.