

NCDS AND SOCIAL DETERMINANTS OF HEALTH

Mental Health in Leon, Nicaragua: Reflections from a Seven-Week Global Mental Health Elective

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Background: Nicaragua is a low and middle income country (LMIC) with a long history of socio-political, economic and environmental challenges that have profoundly affected the local population. Mental disorders and addictions are highly prevalent and suicide rates are the highest in the region. Mental health infrastructure and funding are sparse and care differs significantly from standards in Western countries. A final year medical student completed a seven-week psychiatry global mental health elective in Leon, Nicaragua. Her reflections on the current state of mental health care in Leon are presented.

Methods: During the elective, the medical student participated in patient care in both inpatient and outpatient settings and documented her experiences through a reflective blog. Educator-practitioners, such as M.A. Jasper, have argued that reflective writing itself is a valid data source, promoting creativity and the formation of connections. We use the blog alongside published data as a source of information about mental health provision in Leon.

Findings: In Leon, the most common patient presentations include anxiety and depression related to complex family dynamics, economic hardship and alcohol addiction. Mental health care is mainly provided through hospital inpatient services, outpatient services at a university-affiliated mental health and addictions clinic, and outpatient and crisis services at a community mental health center. Mental health specialists are few and psychiatry is not an emphasized discipline – there are few psychiatrists within the public system, medical students have little awareness of and exposure to psychiatric presentations and management, and psychiatry residency positions nation-wide are very limited. Mental health care is largely provided by allied health services, usually psychologists, who focus on symptomatic treatment rather than diagnostic management.

Interpretation: As with other LMICs, practitioners and resources for mental health are scarce. This shortage is balanced by the high motivation of mental health practitioners who aim to use innovative evidence-based practices and to leverage public education and prevention. Funding and training resources remain a challenge but emphasis on front-line capacity building and integration of mental health into public health and other medical curricula, with focus on primary care, may provide significant improvements.

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Fresh Fruit Intake May Decrease Long-term Risk of Esophageal Cancer Death among Smokers Based on Results from the Linxian Nutrition Intervention Trial

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Background: Previous studies have shown inadequate intake of fruit to be one of the main risk factors of esophageal cancer death. This association is particularly true among the smokers. We investigated the association between long-term risk of esophageal cancer death and fresh fruit consumption among smokers in the Linxian Nutrition Intervention Trial.

Methods: In 1984-1991, 8,901 smoking participants from the Linxian nutrition interventional cohort completed a food frequency questionnaire and were followed. Through December 31, 2015, there was a median of 31.79 years of observation. The primary endpoint was death from esophageal cancer. Hazards ratio and 95% confidence interval were calculated using Cox proportional hazard model for fresh fruit consumption.

Findings: A total of 904 esophageal cancer deaths occurred during the study timeline. Baseline dietary surveys were divided into categories of never or rarely consumption of fruits, monthly, 1-3 times per week, 4-6 times per week, and daily consumption. After following this cohort for 30 years, different frequencies of fresh fruit intake were calculated. 30-year cumulative mortalities for different frequencies of fruit consumption were significantly different, with rates of 21.84%, 16.48%, 14.05%, 10.99% and 12.09% respectively. With the increasing frequency of fresh fruits intake, the 30-year cumulative mortality rates decreases ($\chi^2 = 175.58$, $P < 0.001$). Compared to participants who never or rarely consumed fresh fruit, participants who consumed fruits monthly, 1-3 times/week, 4-6 times/week, or daily, the risk of esophageal cancer death decreased with 26%, 39%, 49% and 49%, respectively. Adjusting for age, sex, region, BMI, education, drinking history and family history, the risk of esophageal cancer death decreased by 13% (HR = 0.87, 95% CI:0.75 – 1.00) among those whose intake of fresh fruits was more than 1 time per week, especially among males (HR=0.87, 95% CI:0.76–1.00) with a negative history of drinking (HR = 0.82, 95% CI:0.68–0.99).

Interpretation: Higher intake of fresh fruits was associated with a lower risk of esophageal cancer death in smoking populations among high-risk esophageal cancer regions in China.

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Knowledge of and Attitudes Toward Alcoholism among Church Leaders in Saint Vincent/Grenadines

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