

LIFESTYLE FACTORS AND THEIR ASSOCIATION WITH NONALCOHOLIC FATTY LIVER DISEASE - NATIONAL ESTIMATE

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Abstract

Background:

Nonalcoholic fatty liver disease (NAFLD) is metabolic dysfunction characterized by excessive lipids build-up which are triglycerides in the liver cells in absence of secondary cause such as alcohol or liver disorders. About 100 million individuals in the United States are estimated to have NAFLD. Data from "The Economic Tsunami of Liver Disease" revealed that NAFLD, which affects approximately 100 million Americans, costs the U.S. healthcare system \$32 billion annually compared with the \$34 billion annual costs of strokes.

Aim & objective: Primary outcome of the study was to identify the prevalence and epidemiological characteristics of NAFLD amongst participants. Secondary outcome was to evaluate association between the lifestyle factors and NAFLD.

Methods:

A population-based retrospective cross-sectional analysis performed using NHANES (National Health and Nutrition Examination Survey) database from 2015 to 2018. Lifestyle factors such as dietary fibers, sedentary lifestyle, annual household income, were identified by survey questionnaires. We used SAS 9.4 to perform univariate and multivariable logistic regression analysis to find out prevalence and epidemiology of NAFLD and association of lifestyle factors with NAFLD.

Results:

Of total 275968, the total number of people 717 (0.26%) was identified with NAFLD. NAFLD was more prevalent in older (median: 62 years), male, Mexican American and other Hispanic, and median household income >\$100,000. We also performed multivariate analysis, when we considered lifestyle factors, we found that dietary fiber intake (OR:1.18; 95%CI:1.18-1.19; p<0.0001), sedentary lifestyle (OR:5.11; 95%CI:5.08-5.12; p<0.0001), and absence of exercise/vigorous-intensity activity (OR: 1.47, 95%CI:1.46-1.47 p<0.0001) had higher prevalence and odds of NAFLD.

Conclusion:

In this study, we have identified several lifestyle factors such as dietary fiber, sedentary lifestyle, and non-vigorous exercise were modifiable factors and associated with higher NAFL prevalence. More in-depth studies are required to develop preventive strategies to reduce these modifiable factors resulting in NAFLD.

