Background

Fish contain polyunsaturated fatty acids which are associated with decreased cardiovascular risk. However, frying fish alters the fatty acids. Fried fish intake of more than one serving per week is associated with an increased risk of cardiovascular events. In addition, when compared to no consumption, one daily serving of fried fish is associated with a hazard ratio of 1.07 for all cause mortality and 1.13 for cardiovascular mortality. In individuals with chronic illnesses, baked/grilled fish consumption is inversely associated with total mortality. The purpose of this study was to explore characteristics associated with fried vs. non-fried fish consumption in the rural Appalachian region of the Stroke Belt.

Methods

Volunteers (n = 195) completed a demographic questionnaire and the USDA Diet History Questionnaire II during a community health event in an impoverished rural food desert in Eastern Kentucky. The DHQ-II assessed fried and non-fried-fish consumption.

Results

Average age was 55 years (sd = 15.44, range: 19-95) and females comprised 69% (n = 134) of the sample. Fried and non-fried fish was consumed at least twice monthly by 39.3% and 34.3% of participants, respectively. Advancing age was associated with a greater likelihood to consume fried fish (β = .225, t = 3.20, p = .002). Participants with more education were less likely to consume fried fish (β = -.124, t = -1.73, p = .085). Income and gender were not associated with fried or non-fried fish consumption.

Discussion

Consumption of fried fish has been linked to increased risk of cardiovascular disease and stroke, particularly in populations in the South’s Stroke Belt where fried fish is very popular. While non-fried fish is associated with lower cardiovascular disease and stroke risk, fried fish consumed more than twice weekly increases these risks by 63%. Interventions aimed at increasing the consumption of non-fried fish and reducing fried fish consumption are needed, particularly for older adults and those with lower levels of education.

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