INTRODUCTION

● While alcohol could be consumed recreationally and considered a social lubricant when consumed at a moderate level, it is also a well-established risk factor for carcinogenesis (Choi et al., 2017).

● A majority of the East Asian populations inherited the deficient alcohol-metabolizing enzymes ALDH2, which results in a unique physical reaction called Asian flush in response to alcohol consumption (Matsumura et al., 2019).

● Despite having a lower tolerance of alcohol compared with other ethnic groups, binge drinking behavior in Asian flushers is mostly characterized by social purposes (Grant et al., 2004; Ko & Sohn., 2018).

Study Objective: Examine the interconnections between genetic predisposition and sociocultural factors to the development of cancers in persons of East Asian ancestry.

METHOD

Procedure: Literature search

● Search: Sociocultural factors of alcohol consumption; Risk of cancer and ALDH2 alcohol-flushing gene; alcohol consumption and risk of cancer

● Database: Pubmed, APA PsychInfo, National Institute of Health

● Population: Study participants range from adults in China, Japan, and Korea to college students of East Asian ethnic in the United States

DISCUSSION

Summary

● There is a genetic-environment interaction for alcohol-related cancer risk in East Asian populations

● East Asian descents are at risk because of their inherited lower alcohol metabolic rate and the normalization of alcohol consumption in social contexts.

● The most common reasons for alcohol consumption are social group involvement, maintaining social harmony, peer pressure, and promoting interpersonal connections.

Limitations:

● Lack of gender diversity

● Sample limited to individuals of Korean, Japanese, and Chinese ethnicities.

● Inconsistent definitions of social drinking

● Other health variables were excluded from many of the studies

Future Directions:

● Use of genetic feedback to detect the presence of the inactive gene as preventative measures for alcohol-related health risks

● Education about social beliefs, behavior, and motivations within social drinking circumstances can prevent alcohol-related risk.

● Combination of psychoeducation and genetic detection could benefit the rehabilitation process for alcohol use disorder.

RESULTS

● Drinking in Korea is characterized by social situations, going out with friends make up 44.2% of drinking occasions (vs. 27.5% home), with a notable increase in social professional contexts in individuals older than 50 (Ko & Sohn., 2018).

● While non-flushing students consumed more alcohol overall, East Asian college students who possess the inactive ALDH2 students conformed to drunken behavior by peers more (O’Shea et al., 2017).

● Alcoholics with the inactive ALDH2 gene (OR = 12.76) were found to be six times more likely to develop cancer than those without (OR = 2.03). Furthermore, alcoholic esophageal cancer patients were more likely to have the inactive allele compared to alcoholics without (OR = 0.560 vs. OR = 0.099, respectively) (Matsuo et al., 2013; T. Yokoyama et al., 1999; 2013).

● Only 42% of flushers knew about alcohol-related long-term health consequences (Kim et al., 2019).