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A public health threat- Electronic cigarette & COVID-19

Hema Samson

Sultan Qaboos University, Oman

Introduction- People who use substances are more inclined to insurmountable risks related to COVID-19, including poor prognosis, significant risk of infection and protracted mortality. Cigarette smokers and vapers are at an exceptionally conspicuous risk as the toxic exposure increases lung susceptibility and quells immune function (1). As reported by the WHO fact sheet, related to tobacco- greater than 8 million lives are lost annually due to use of tobacco. Direct tobacco use contributes to more than 7 million deaths and 1.2 million are due to nonsmokers being exposed to secondhand smoke (2). The tobacco and nicotine industry are on a rampage, wooing regulators globally, seeking support to the emerging nicotine and tobacco products, namely Electronic Nicotine Delivery System. The industry has floated a 1.4 billion USD marketing campaign to instigate youngsters to adopt the noxious habit that kills millions every year (3).

Discussion-Electronic Nicotine Delivery System (ENDS) are also referred to as Electronic cigarettes or Vaping devices and (its users referred to as vapers). It is a rechargeable electronic device that is battery operated and emits vaporized nicotine to inhale. It comprises of a cartridge attached to a tube containing liquid solution, an atomizer that heats the liquid to form vapor, and a sensor that triggers the atomizer when the user sucks the device and the e-solution/e-liquid that incorporates a combination of nicotine diluted in propylene glycol solution and a flavoring agent (4). Despite being lauded as a safer substitute to conventional tobacco smoking and an impressive competent method to quit, there is no conclusive data that this is factual. The pharmacokinetic property of nicotine confers to its addictiveness. Vaping of nicotine has overwhelmingly gained attention as a public health crisis. Regardless of age, sex, nationality, social and economic status, the corona virus is sweeping across nations, with millions succumbing to COVID-19. Its ravenous appetite is still not satiated. Although an even greater number recovered and are recovering from the infection, it is not without sequela. Amidst various theories, assumptions, and research regarding its spread, medical management, and vaccines. Are vapers more vulnerable to being tested positive for COVID-19?

A national level cross sectional online survey of adolescents and young adults (age 13 to 24 years) of e-cigarette users, smokers, dual users, and non-users was done in the US between May & June 2020. User's of e-cigarettes only - were 3.3 times, dual user 3.6 times and users of cigarettes only were 3.9 times more likely to be tested positive for COVID-19 (5). COVID-19 spreads through repeated touching of one's hands to the face and mouth which is common among smokers and e-cigarette users (6). A telephonic survey conducted at Boston area community health centers between March & July 2020 showed 80% of participants believed that vaping and smoking increased their risk of COVID-19 infection or complication (7). Intense exposure to nicotine and other chemicals in e-cigarettes resentfully affects lung functions, with studies showing that lung damage caused by e-cigarette is comparable to combustible cigarettes.