Undergraduate Student's Attitudes Towards E-Cigarettes

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Miech et al 2019, reported college students vaping increased from 6% to 16% in 2015. College aged students use e-cigarettes at the highest rates of all age groups and are at risk for developing E-cigarette / vaping, lung injury (EVALI) CDC, 2018). People aged 18-24 had the highest rate of use, 7.9%, and of trying e-cigarettes, 25.8% (CDC, 2018).

This study aims to increase our understanding of undergraduate college students' views on risks and benefits of vaping.

A mixed method on-line survey study using grounded theory was used to identify recurring themes among undergraduate students using e-cigarettes by examining the concepts within Pender's Health Belief Model (PHBM).

Descriptive statistics included: percentages, frequencies, standard deviations, means and ranges using Microsoft Excel and Qualtrics. The two investigators reviewed survey responses to identify the PHBM concept themes.

A sample of 58 undergraduate students who vape (n= 42) or former vapers (n=16) participated between June-July of 2021. Four-questions examined participant characteristics and experiences with 83% reporting a cigarette smoking history. There was no statistical relevance of e-cigarettes being a gateway to cigarettes use. On average, a vape cartridge lasted 5.1 days (SD +/-4). Most participants understood that the nicotine content of a cartridge was equivalent to a pack of cigarettes.

The strongest facilitating factors for vaping were social pressure (48%) and "the buzz" (36%). The majority (88%) of participants perceived e-cigarettes to be more or just as addictive as cigarettes. The most prevalent perceived benefits of vaping were "a buzz" (31%) and to alleviate "anxiety and stress" (36%). Only 28% of participants could identify e-cigarette contents, and nearly all (97%) were unaware that not all e-cigarettes are FDA approved.

When examining inhibiting factors for vaping it was surprising that 98% of participants suspected vaping was negatively affecting their health but could not identify the long-term effects of vaping. Over half (52%) of users reported they would continue to vape with known long-term negative health effects.

When surveying for perceived self-efficacy for vaping cessation, 86% of participants have tried to quit e-cigarettes, but only 27% were successful. Participants went 8.5 days (SD +/-5.9) without using e-cigarettes. Only 17% of participants reported they would continue to use e-cigarettes if they tasted and smelt like real cigarettes.

When applying our results to the PHBM, college students perceived benefits of ecigarettes outweigh the perceived risks. Short term benefits of social interaction, buzz and taste far outweigh the perceived risk from vaping over half of participants reporting they would continue to use e-cigarettes even if their health was negatively impacted. Further research is needed to improve perception of the risk and benefits to vaping. Advocacy to help decrease vaping in younger adults consider targeting removal of flavorings.