Increased Intake of Caffeine in Young Adults May Lead to an Increased Consumption of Alcohol

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TBIOMD 492

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Background:

- Caffeine consumption is a normal practice within our society and with the growing market of energy drinks it has become more accessible.
- Young adults are consuming alcohol at earlier ages.

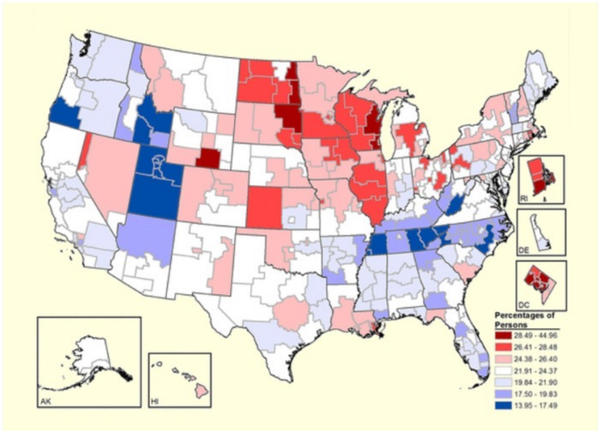

Figure 1. A Geological map showing the amount of binging of alcohol in individuals between the ages of 12 to 20 measured in the years 2012 to 2014 (Chung et al., 2018).

- The availability of caffeinated drinks is growing and are marketed towards a younger audiences.
- Young adults commonly grow up watching their parents consume cups of coffee early in the morning.
- With the variety of energy drinks available to them, young adults can consume caffeine more easily and at an earlier age.
- With the earlier consumption of caffeine, young adults have normalized the use energy drinks as mixers with alcohol.

Methods:

- A literature review of primary and peer reviewed articles ranging in topics from addictive disorder to the combination of caffeinated drinks and alcohol was compiled. The consumption of caffeine and its potential association with an increase in the consumption of alcohol was also explored.

Current Knowledge:

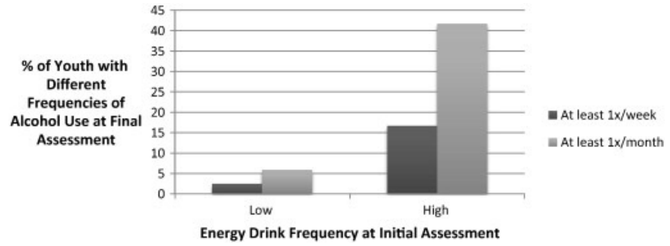

Figure 2. A bar graph showing the amount of alcohol consumption after the initial measurement of caffeine consumption. The low grouping are individuals that consumed less than one caffeinated beverage within a week while the high grouping are individual that consumed at least one caffeinated beverage within a week. Then the key to the side shows that the darker bar is at least one alcoholic beverage per week while the lighter bar indicates at least one alcoholic drink per month (Miyake and Marmorstein, 2015).

- After consuming energy drinks, there is a potential increase in the likelihood of then consuming alcohol.
- This study *Energy drink consumption and later alcohol use among early adolescents* (Miyake and Marmorstein, 2015) suggests a link between alcohol and caffeine.

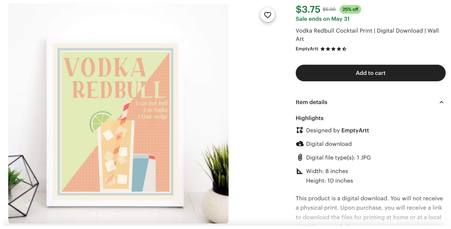

Figure 3. A drawing of a Vodka Redbull cocktail showing the ingredients required for the beverage (A screenshot from Etsy).

- Using energy drinks as mixers has become standard practice that cocktails like Vodka Redbulls are commonly available.
- Young adults are using energy drinks in their alcoholic beverages as seen in this example of a beverage created into a decorative image (Figure 3).

- Combining alcohol and caffeine has known negative side effects.
- Caffeine is a stimulant while alcohol is a depressant.
- Consuming caffeine in alcoholic beverages can cause individuals to continue drinking which could lead to overconsumption of alcohol.
- Health impacts of the combination of caffeine & alcohol have not fully been studied due to the early developments of the energy drink industry.

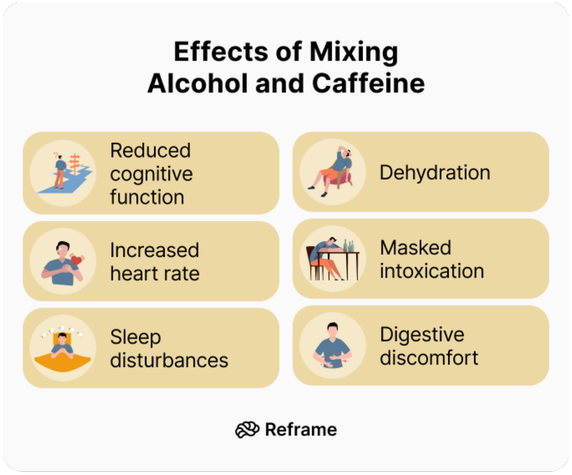

Figure 4. A diagram showing the normal effects that are seen when alcohol is mixed with caffeine (Team RC., 2023).

Future directions:

- Further research needs to be done to truly understand the impact of energy drink consumption at a young age leading to a potential addictive mindset toward alcohol later in life.
- Longitudinal studies need to be done to identify the long-term impacts of young adults consuming caffeine mixed with alcohol.
- When the impacts of this combination is better understood, the target audience will be more educated of health consequences.

Conclusions:

- Caffeine consumption is a normalized practice which is increasing with the growing market of energy drinks.
- Young generations using sugary energy drinks as mixers could indicate an increase in the consumption of alcohol.
- More studies of the long-term effects of early consumption of caffeine and alcoholic mixtures needs to be done.
- More awareness needs to be brought to the impacts of the combination of caffeine and alcohol to allow the young generation to make educated decisions.

Acknowledgments and References:

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