Caffeine As A Legal Stimulant

In recent years, stress has become a frequent heard phenomenon in our society, especially a rising trend among university students. According to the 2007 Healthy Mind Survey done in the United State, 50.7% of the 5689 participants are tested positive for depression, panic disorder and generalized anxiety due to stress (Keyes et al., 2012). Another study conducted in the United Kingdom, which consisted of 16460 undergraduate students, revealed that psychological distress steadily rose during the course of their study (Berwick et al., 2010). These findings are concerning as overwhelming stress can lead to severe mental problems like, sleep disturbance, depression, anxiety or even suicidal behaviors (Brownson et al., 2014; Garlow et al., 2008; Keyes et al., 2012).

As caffeine is a legal stimulant drug that has significant effect on several physiological functions (Lane et al., 1990), resulting in a number of positive, short-term effects on mood, alertness, (Ferré, 2008; Kaplan et al., 1997; Lorist and Tops, 2003) processing speed and attention (Cysneiros et al., 2007), caffeinated beverages are regularly consumed as a coping strategy for academic stress (Lazarus, 1993; Rios et. al., 2013; Thoits, 1995). Caffeine pills are sometimes used for neuroenhancement, especially during exam period (Brand & Koch, 2016).

Caffeine is regularly associated with coffee however, caffeine is also found in cocoa, soft drinks, energy drinks, tea, chocolate and some medications (State of Victoria, 2020). Hruby (2012) found 90% of U.S. adults ingest caffeine on a daily basis to the equivalent levels of four cups of coffee. High levels of caffeine consumption could therefore be considered a social norm. Despite the positive effects in both cognitive and affective aspects mentioned above, a number of studies have linked regular caffeine consumption with everyday life stress (Jin, 2016; Lane et al., 1990), higher anxiety levels, insomnia (Gililand & Andress, 1981) and decreased academic attainment (James et al., 2011). While research has shown that consuming up to 400 mg of caffeine a day, roughly four cups of coffee, appears to have no serious adverse health effects for most healthy adults, it can differ significantly between individuals' sensitivity to caffeine (Nawrot et al., 2003). Research is inconclusive regarding the specific levels of caffeine intake that can provide positive impacts while avoiding negative impacts.

Al-Amari and Al-Kharmees's (2015) research found that university students have inconsistent and unhealthy eating habits as a result of low finances and busy schedules. It is therefore suspected that young adults, including university students, do not fully understand and consider the impacts that caffeine consumption could have on their daily functioning, prior to becoming regular caffeine consumer, which can put them at risk in having negative effect on stress and mental health.

Despite some studies have shown low doses of caffeine consumption can reduce anxiety (Smit & Rogers, 2000; Lieberman et al., 1987), other studies targeting student population resulted in observation of association in higher anxiety level with moderate to high doses of caffeine consumption (Jin, 2016; Lane et al., 1990; Gililand & Andress, 1981) or no relation between caffeine use and perceived stress level (). Due to the mixed opinions from previous studies and potential negative health effects associated with excessive caffeine consumption, including higher levels of stress, this research study aims to address the gap in current literature by using

a mixed-methods study to examine the impact of caffeine consumption on stress levels in university students. A qualitative research design will reveal university students' perception on the relationship between caffeine consumption and stress. A quantitative research design will directly reveal the effect of caffeine intake on stress. It is hypothesised that higher caffeine consumption will be related to higher stress levels.