

## Risk Factor Analysis in Community with Consuming Habits Caffeinated Drinks

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### ABSTRACT

**Background:** People in general have a habit of consuming coffee every day, from various social status circles they like coffee drinks with different consumption goals. Caffeine is widely found in beverages, drugs, supplements and sweets, is the most widely used stimulant in the world, caffeine is a central nervous system stimulant, diuretic, stimulates the heart muscle, and relaxes bronchial smooth muscles. At standard doses, 50-200 mg of caffeine primarily affects the outer layer of the brain. This effect can reduce fatigue, however the caffeine consumed also turns out to have side effects.

**Purpose:** The purpose of this study is to analyze the risk factors in the community with the habit of consuming caffeinated drinks.

**Methods:** The design used is a literature review by using several journals from several sources such as: Google Scholar, The keyword used to conduct the search is "factors that influence people's behavior in consuming caffeine drinks", the year of publication are 2015-2020.

**Results:** The results of the journal discussion showed that the risk factors in the community with the habit of consuming caffeinated beverages had an effect on the health of the individual itself because the dangers of coffee could arise if excessive coffee consumption, which caused the heart to beat fast, became irregular, and caused seizures.

**Conclusion:** In addition, unfiltered coffee can also trigger several things that can increase the risk of heart disease, because it increases homocysteine (a type of protein-forming amino acid) which is thought to be closely related to heart attacks, increased blood fat, and cholesterol.

**Keywords:** caffeinated drinks, habit, risk factors

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## **BACKGROUND**

People in general have a habit of consuming coffee every day, from various social status circles they like coffee drinks with different consumption goals. Caffeine is widely found in beverages, drugs, supplements and candy, and is the most widely used stimulant in the world (Snel & Lorist, 2011). Coffee is a source of caffeine that is widespread and can be obtained freely, in addition to other products such as energy drinks, cocoa and soft drinks (Swastika, 2012).

Coffee is one of the most popular and popular drinks in Indonesia. One cup of coffee becomes an extraordinary symbol device, because it not only functions as a reliever of drowsiness, stress, fatigue, or staying up late, but as a symbolic code used by some of the connoisseurs to actualize their presence in social groups. The habit of drinking coffee in Indonesia seems to have become a hereditary culture, because from the old to the young today, many like coffee and even make it a hobby (Nurhasanah & Dewi, 2020). Caffeine is a central nervous system stimulant, diuretic, stimulates the heart muscle, and relaxes bronchial smooth muscles. At standard doses, 50-200 mg of caffeine primarily affects the outer layer of the brain. This effect can reduce fatigue (Smirmaul et al., 2017).

Consumption of caffeine in low doses is proven to provide benefits. Caffeine is believed to affect performance or performance and mental state by reducing or eliminating sleep (James & Keane, 2007). However, caffeine consumed also turns out to have side effects. A descriptive study by Bawazeer and Alsobahi in 2013 showed that 34.3% of energy drink drinkers containing caffeine admitted to experiencing side effects including palpitations, insomnia, headaches, tremors, restlessness, and nausea and vomiting. In addition, regular caffeine consumption can cause dependence effects (Bawazeer & AlSobahi, 2013).

People who usually consume caffeine and are asked not to consume caffeine show symptoms of anxiety, tiredness/lethargy, and lack of enthusiasm than those who do not normally consume caffeine (Purdiani, 2014). Caffeine relieves typical symptoms of stress such as forgetfulness, anxiety, and feelings of depression (Mueller et al., 2015).

As we can see in the behavior of the people in the consumption of caffeinated drinks and energy drinks for the Indonesian people, it has become a deep-rooted tradition and is difficult to abandon. Various advertisements in the media, for example, offering products ranging from beverages, supplements to candy claim to wake and increase productivity. The advertisement itself can be judged as a positive one, if you pay attention to the drinks that are usually consumed by the younger generation, in the morning they automatically order various energy drinks and caffeinated sodas. This means that many young people in Indonesia are having trouble sleeping and the quality of their sleep patterns is not good (Safriyanda et al., 2015).

## **OBJECTIVE**

The purpose of this study is to analyze the risk factors in the community with the habit of consuming caffeinated drinks.

## **METHODS**

The process carried out in this literature review is to review and search for several research journal articles published through electronic databases. The data base used to conduct the search is: Google Scholar, The keyword used to conduct the search is "factors that influence people's behavior in consuming caffeine", Reference search is limited to articles available in full text that can be accessed by researchers, using Indonesian as well as

in English and the year of publication between 2015-2020. Based on the results of a literature search, researchers found 265 journals that matched these keywords. The types of studies analyzed are all types of research that use people's behavior to consume caffeine.

## RESULTS

Based on a literature review search, it was found in 6 search articles with research results stating that there was an influence between risk factor analysis in the community and the habit of consuming caffeinated drinks. Bistara & Kartini (2018) conducted research about the relationship between coffee consumption habits and blood pressure in young adults. The results showed that the spearman rho statistical test  $p = 0.465$  ( $\alpha = 0.05$ ), indicating that  $H_1$  was rejected, so it can be concluded that there is no relationship between coffee consumption habits and blood pressure in young adults (Bistara & Kartini, 2018).

The results of the research conducted by Mullo et al. (2018) showed that a total of 31 (42.5%) patients consumed coffee regularly, and 44 (42.5%) patients consumed coffee regularly. 60.3% patients had hypertension. Nearly 50% of patients who consume coffee have hypertension. However, the relationship was not significant ( $= 1.225$ ;  $p = 0.380$ ). Coffee consumption was not shown to increase the risk of hypertension in this study (Mullo et al., 2018).

Liunima et al (2017) showed that coffee consumption was mostly categorized as moderate consumption, namely as many as 24 people (53.33%) with stress levels. most of them were categorized as moderate stress, namely 38 people (84.44%), then the data were analyzed using the spearman rank test and obtained a significance value of 0.004 0.05, meaning that there is a relationship between coffee consumption and stress levels in young adults (IKB) (Liunima et al., 2017).

Purdiani (2014) in her research showed that most of the students at the University of Surabaya (80.83%) consumed caffeinated beverages a week. The last one with the most reason is the like factor (53.67%). From 39.17% of respondents admitted to consuming coffee at night before the exam and there were still many students who felt that the quality of their sleep was not enough (Purdiani, 2014).

Solikatun et al. (2015) showed the results that coffee consumption behavior was influenced by social media, lifestyle, friends or co-workers, family, income, motives and knowledge of coffee drinkers. The indicators of consumptive behavior themselves include consumption carried out only to maintain self-appearance or prestige, consuming based on price considerations and consumption to show social status (Solikatun et al., 2015).

## DISCUSSION

According to research conducted by Bistara & Kartini (2018), the results showed that the spearman rho statistical test  $p = 0.465$  ( $\alpha = 0.05$ ), indicating that  $H_1$  was rejected, so it can be concluded that there is no relationship between coffee consumption habits and blood pressure in young adults. These results show that there is a relationship between coffee consumption habits and blood pressure in young adults. Each respondent has a different habit of consuming coffee have abnormal blood pressure because addiction to coffee will cause changes in blood pressure (Bistara & Kartini, 2018).

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The results showed that subjects who had the habit of drinking coffee >3 cups per day could tolerate the effects of caffeine on coffee, so it had no effect on increasing blood pressure. The body has a complex hormone regulation that is in charge of maintaining blood pressure which can cause the body's tolerance to caffeine exposure to coffee in a humoral and hemodynamic manner, when caffeine exposure occurs continuously, and it can be concluded that the habit of drinking coffee increases the risk of hypertension, but depends on the frequency daily consumption.

Caffeine is a mild stimulant, and is added to many analgesic preparations to increase activity, although there is no scientific basis for this practice. High doses can cause insomnia and feelings of anxiety, and can induce drug withdrawal syndrome in severe cases (Glade, 2010). The xanthine derivatives present in plants, namely caffeine, theophylline, and theobromine, caffeine has the strongest psychotonic action (Cappelletti et al., 2015).

So that researchers can assume that risk factors in people with the habit of consuming caffeinated drinks affect the health of the individual itself because the dangers of coffee can arise if excessive coffee consumption causes the heart to beat fast, become irregular, and cause seizures. In addition, unfiltered coffee can also trigger several things that can increase the risk of heart disease, because it increases homocysteine (a type of protein-forming amino acid) which is thought to be closely related to heart attacks, increased fat in the blood, and cholesterol.

## CONCLUSION

From the results of the literature review of each journal, it shows that there are risk factors in people with the habit of consuming caffeinated drinks because it affects the health of the individual itself because the dangers of coffee can arise if excessive coffee consumption, which causes the heart to beat fast, becomes irregular, and causes seizures. In addition, unfiltered coffee can also trigger several things that can increase the risk of heart disease, because it increases homocysteine (a type of protein-forming amino acid) which is thought to be closely related to heart attacks, increased blood fat, and cholesterol.

Thus it can be said that there is an influence between risk factors in the community and the habit of consuming caffeinated drinks. Because from the results of the journal discussion, it was found that there was a very close influence between risk factors in society and the habit of consuming caffeinated drinks.

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