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Influential Factors on High-Risk Packaged Baverange Consumption

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Abstract

In this modern era, many technologies have developed, now there are many products that are processed instantly, for example packaged and sweetened drinks. There are many packaged beverage products that vary in shape, type, and taste. These drinks are certainly one of the favorite drinks for teenagers because of their practical packaging and sweet taste and easy to freeze because they are sold everywhere. This study examines the factors that influence the consumption of high-risk packaged sugary drinks. According to a study, the habit of consuming sugary drinks every day can increase the risk of gout 75 percent higher than people who rarely drink them. In addition, packaged sugary drinks are not good for health because they use preservatives and artificial sweeteners. The large amount of sugar in a packaged drink can cause diabetes. In addition to type 2 diabetes, heart disease, and metabolic problems and can lead to kidney disease if consumed excessively and continuously. To avoid this, we can make a healthy lifestyle by consuming healthy foods and drinks such as vegetables, fruits, and enough water. To reduce sugar consumption, we can switch to low-sugar drinks, check the label of sugar content on drinks, reduce sugary drinks, and choose fruits as sweet alternatives.

Keywords:
Influential Factors; High-Risk Packaged; Baverange; Consumption

1. Introduction

The consumption of high-risk packaged beverages, which include products with excessive sugar, artificial additives, and high alcohol content, has become a significant public health concern (Stanner & Spiro, 2020). These beverages are widely marketed and often easily accessible, particularly among younger demographics. Understanding the influential factors that drive the consumption of these products is crucial for developing effective strategies to mitigate potential health risks.

This study aims to explore various determinants of high-risk packaged beverage consumption, including socio-economic status, marketing strategies, cultural influences, and consumer awareness. By analyzing these factors, we can gain insights into the patterns of consumption and the underlying motivations that lead individuals to choose these beverages over healthier alternatives. Ultimately, this research seeks to contribute to the ongoing dialogue about

public health, consumer behavior, and regulatory policies aimed at promoting healthier drinking choices.

High-risk packaged beverages often attract consumers due to their appealing branding and aggressive marketing strategies (Muliawan & Oktavia, 2024). Advertising campaigns frequently target vulnerable populations, including adolescents and young adults, by emphasizing lifestyle associations, social status, and convenience (Freeman et al., 2016). Additionally, the role of peer influence cannot be underestimated; social circles can significantly impact individual choices, making high-risk beverages seem more acceptable or desirable. Moreover, accessibility plays a critical role, as these products are commonly found in convenience stores, supermarkets, and vending machines, further encouraging impulsive purchasing. Understanding these marketing tactics and social dynamics is essential for addressing the growing prevalence of high-risk beverage consumption and fostering a healthier drinking culture.

One of the key factors influencing high-risk packaged beverage consumption is the increasing trend of lifestyle choices among consumers (Siddiqui et al., 2022). Busy lifestyles and the demand for convenience often lead individuals to opt for ready-to-drink options that are quick and easy to consume. This trend is further exacerbated by the perception that these beverages provide instant gratification and a sense of pleasure, often associated with social events and celebrations. As consumers prioritize convenience, they may overlook the health implications associated with regular consumption of high-risk beverages, contributing to long-term negative health outcomes such as obesity, diabetes, and cardiovascular diseases (Almoraie et al., 2024).

Another significant factor is the lack of consumer awareness regarding the nutritional content and health risks associated with high-risk packaged beverages. Many consumers may not fully understand food labeling or the implications of high sugar, sodium, and calorie content. Educational initiatives that promote nutritional literacy can play a pivotal role in shifting consumer behavior. By enhancing awareness of the health consequences linked to high-risk beverages, public health campaigns can empower individuals to make more informed choices, encouraging a transition toward healthier alternatives and fostering a more health-conscious society.

2. Method

This study employed a qualitative research design to explore the consumption patterns of high-risk packaged drinks among university students. A total of 31 students from Muhammadiyah Prof. Dr. Hamka University, specifically from classes 1C and 1D, were selected using a purposive sampling method. These students participated in a survey to assess their consumption of packaged drinks, with results showing that the majority consumed these beverages regularly, often on a daily basis. To gain deeper insights, data collection was conducted over three days through direct, semi-structured interviews with the respondents. This method enabled the researchers to thoroughly investigate the students' drinking habits and the underlying factors influencing their choices.

Following the completion of the interviews, the data were analyzed using an inductive thematic analysis approach. This analytical method involved coding the responses to identify emerging themes and patterns, such as the reasons behind frequent consumption, the frequency of intake, and the participants' awareness of health risks associated with packaged drinks. The findings aimed to provide a detailed understanding of the students' behaviors and perceptions, as well as the potential health implications of their consumption habits.

3. Results and Discussion

3.1 Results

The results revealed that the majority of participants consumed high-risk packaged drinks daily, with sugary beverages being the most commonly chosen. Key themes identified from the interviews included convenience, taste preference, and limited awareness of potential health risks. Additionally, many respondents reported underestimating the long-term health implications of frequent packaged drink consumption, despite acknowledging some immediate negative effects.

Table 1. *Knowledge of participants regarding the belief that packaged beverages have a high risk*

Knowledge	n	%
Yes	29	93,5
No	2	6,5
Total	31	100

According to Table 1, 93.5% of those surveyed have knowledge of high-risk packaged beverages. This aligns with earlier research that broadly outlines what is understood about the consumption of such high-risk packaged drinks.

Table 2. *Knowledge of participants on the factors that make packaged beverages a high-risk option*

Knowledge	n	%
High sugar content	25	80,6
Use of artificial preservatives	13	41,9
High caffeine levels	6	19,4
Synthetic dyes	9	29
I don’t know	1	3,2
Total	31	100

According to table 2, a large portion of respondents (80.6%) are knowledgeable about the criteria that categorize packaged drinks as high-risk. This aligns with previous research that details the criteria for classifying these beverages as high-risk.

Table 3. *Participants' awareness of the WHO's recommended daily maximum intake of sugar*

Knowledge	n	%
<25 gr/day	12	38,7
25 - 30 gr/day	11	35,5
>50 gr/day	4	12,9
I don’t know	4	12,9
Total	31	100

A significant portion of participants (38.7%) had knowledge of the World Health Organization's (WHO) suggested daily upper limit for sugar consumption, as shown in table 3. These results are consistent with other research summarizing the current understanding of the WHO's daily sugar intake recommendations.

Table 4. *Understanding of participants regarding sugar-free beverages, which are always safe to drink in large amounts*

Knowledge	n	%
High Caffeine	4	12,9
Added Sugar	22	71
Taurine	3	9,7
I don't know	2	6,5
Total	31	100

Table 4 shows that 71% of respondents are aware of the long-term health consequences of consuming sugar-laden drinks. This aligns with prior research that highlights the extended health impacts of drinking beverages high in sugar.

Table 5. *Understanding of participants regarding sugar-free beverages, which are always safe to drink in large amounts*

Knowledge	n	%
Children	21	67,7
Adult	5	16,1
Elderly	4	12,9
I don't know	1	3,2
Total	31	100

The majority of participants (67.7%) believe that beverages marked as "sugar free" can be safely consumed in large amounts, as indicated in table 4. These findings align with prior studies that highlight the common perception that "sugar free" drinks are safe for extensive consumption.

Table 6. Knowledge of the possible risks associated with artificial food coloring in packaged beverages by participants

Attitude	n	%
1 (Strongly Disagree)	4	12,9
2	1	3,2
3	3	9,7
4	3	9,7
5 (Strongly Agree)	20	64,5
Total	31	100

Table 6 indicates that 64.5% of respondents are aware of the possible risks associated with the use of artificial food coloring in packaged beverages. These findings are consistent with earlier studies that give a summary of what is known about the possible risks associated with artificial food colorings found in packaged beverages.

Table 7. *Knowledge of participants on the existence of potentially harmful energy drinks*

Attitude	n	%
Always	6	19,4
Often	6	19,4
Sometimes	17	54,8
Seldom	1	3,2
Never	1	3,2
Total	31	100

Over half of the participants (54.8%) are knowledgeable about the common chemicals found in energy drinks that can pose health risks, as shown in table 5. These results align with previous research that provides an overview of the chemicals often present in energy drinks and their potential health hazards.

Table 8. *Participants' familiarity with natural flavors found on drink labels*

Attitude	n	%
Always	10	32,3
Often	7	22,6
Sometimes	10	32,3
Seldom	3	9,7
Never	1	3,2
Total		

Most respondents (32.3%) recognize the natural flavors listed on drink labels, as shown in table 5. This data aligns with previous research that summarizes the awareness of natural flavors on beverage labels.

Table 9. *Participants' awareness of the nation's regulations governing the maximum amount of sugar allowed in packaged beverages*

Attitude	n	%
Yes	31	100
No	0	0
Total	31	100

All respondents (100%) are knowledgeable about the maximum sugar content for packaged drinks as outlined in table 2. These results are consistent with previous research summarizing the known limits of sugar in packaged beverages.

Table 10. *Participants' awareness of the age range most susceptible to the negative consequences of ingesting packaged beverages with high potential risks*

Attitude	n	%
Yes	28	90,3
No	3	9,7
Total	31	100

The table indicates that 90.3% of respondents recognize the groups most susceptible to the adverse effects of high-risk bottled beverage consumption. This result is in line with earlier studies that summarize the understanding of the populations most at risk from these negative impacts.

Excessive consumption of sweet packaged drinks poses significant health risks. These beverages are quickly digested, which diminishes the feeling of fullness and increases daily calorie intake, contributing to obesity. Moreover, high fructose levels in these drinks can lead to insulin resistance, impair glycemic control, and increase the risk of developing diabetes. Fructose metabolism in the liver may also result in the accumulation of fat, potentially causing liver diseases like non-alcoholic fatty liver disease (NAFLD).

The adverse effects of sugary drinks extend to other areas of health. Frequent sugar consumption triggers dopamine release, which fosters addiction and makes it challenging to reduce intake. Additionally, the acid and sugar content in sodas can erode tooth enamel and damage oral health. These drinks can also elevate uric acid production, contributing to gouty arthritis, and increase the likelihood of kidney stone formation.

Furthermore, excessive sugar intake has been linked to systemic health issues, including inflammation and fat accumulation around the heart, raising the risk of heart disease. Alarmingly, high blood sugar levels have also been associated with an elevated risk of dementia. To safeguard your health, it is essential to limit sugar-sweetened beverage consumption and seek guidance from a healthcare professional to adopt healthier dietary habits.

3.2 Discussion

The dangers of excessive consumption of sweet packaged drinks encompass a variety of health risks that can have serious long-term implications. These risks, supported by extensive research, include obesity, diabetes, liver disease, sugar addiction, oral health problems, gouty arthritis, kidney stones, heart disease, and dementia. Each of these issues warrants closer examination to understand the mechanisms behind the health impacts of these beverages.

Risk of Obesity

Sugary drinks are strongly associated with obesity, as they are quickly digested and fail to promote prolonged satiety, leading to increased calorie intake (Benelam, 2009). Research highlights that each additional serving of sweetened beverages can result in weight gain and a higher body mass index (BMI) in both adults and children. This weight gain is especially concerning as these drinks provide negligible nutritional benefits, thereby contributing to excessive energy consumption without fulfilling the body's dietary needs.

Diabetes

The link between sugary drink consumption and type 2 diabetes is well-established (Wang et al., 2105). High levels of fructose in these beverages can cause insulin resistance, a key factor in the development of diabetes. Studies reveal that consuming just one can of sugary soda daily can increase the risk of type 2 diabetes significantly. Regular consumption doubles the likelihood of developing diabetes compared to non-consumers, highlighting the critical role of dietary choices in managing diabetes risk.

Liver Disease

Fructose metabolism in the liver contributes to the development of non-alcoholic fatty liver disease (NAFLD) (Tappy & Lê 2012). Excess sugar intake, especially from sweetened beverages, promotes the accumulation of fat in the liver, leading to conditions such as cirrhosis and chronic hepatitis. Over time, this can cause irreversible liver damage, emphasizing the need for dietary moderation to protect liver health.

Sugar Addiction and Oral Health

Sugar triggers dopamine release in the brain, creating feelings of pleasure that can lead to addiction (Greenberg &St Peter, 2021). This cycle of dependency encourages excessive consumption, further increasing health risks. Additionally, the high sugar content and acidity in sweetened drinks erode tooth enamel, resulting in cavities and other dental issues. Without proper dental hygiene, these effects are exacerbated, causing significant oral health problems.

Additional Health Risks

Sugary drinks also contribute to other serious health concerns (Johnson et al., 2009). Fructose raises uric acid levels, leading to gouty arthritis characterized by painful joint inflammation. The metabolic changes induced by sugar can also increase the risk of kidney stone formation. Furthermore, the inflammatory properties of fructose and its role in fat accumulation in the heart elevate the risk of cardiovascular diseases. Finally, emerging research links high blood sugar levels from sugary drinks to cognitive decline, suggesting a potential association with dementia.

In conclusion, the excessive consumption of sweet packaged drinks presents a multitude of health risks, making it essential to limit intake. Individuals are encouraged to opt for healthier alternatives and seek guidance from healthcare professionals to mitigate these dangers and maintain overall well-being.

4. Conclusion

The consumption of high-risk packaged beverages is influenced by a complex interplay of socio-economic, cultural, and behavioral factors, all of which contribute to growing public health concerns. Key drivers include aggressive marketing tactics, which often target younger demographics, associating these products with lifestyle benefits, social status, and convenience. Peer influence and the easy accessibility of these beverages in everyday locations like convenience stores and vending machines further reinforce their consumption, making these choices appear both convenient and socially acceptable.

Additionally, the fast-paced lifestyle of many consumers encourages the selection of ready-to-drink options that provide quick satisfaction, even at the expense of health. Unfortunately, the lack of consumer awareness regarding the nutritional risks associated with these beverages often leads to a disregard for potential health consequences, contributing to long-term health issues such as obesity, diabetes, and cardiovascular disease.

To address these concerns, comprehensive public health strategies are essential. These strategies should focus on enhancing nutritional literacy, regulating marketing practices, and promoting healthier, more accessible alternatives. By understanding the underlying factors driving high-risk beverage consumption, policymakers, healthcare providers, and educators can work together to foster more informed choices and ultimately contribute to a healthier society.

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