**Introduction**

Excessive alcohol consumption is a significant public health concern. Each year, many individuals experience health issues due to heavy alcohol intake, and addiction remains a widespread problem. Families suffer from the consequences of alcohol abuse, and communities face increased crime rates and social disruptions linked to intoxication. Moreover, excessive drinking contributes to a rise in road accidents and fatalities. This research examines alcohol consumption patterns using real-world data to identify key trends and risk factors. The findings of this study can help policymakers implement necessary measures to address this pressing issue.

**Problem statement**

The objective of this study is to identify the factors influencing excessive alcohol consumption. This research focuses on determining which demographic and behavioral factors are most associated with high alcohol intake. Additionally, it explores correlations between alcohol consumption and socioeconomic status, overall health, and lifestyle habits.

**Methodology**

To explore these issues, three datasets were utilized: "**Global Alcohol Consumption,**" "**Happiness Alcohol Consumption,**" and "**Life Expectancy.**" These datasets contain extensive demographic, behavioral, and alcohol consumption attributes. The study followed these key methodological steps:

* **Data Cleaning & Preprocessing:** Outliers were removed, missing values were handled, and data was normalized.
* **Exploratory Data Analysis (EDA):** Data distributions, correlations, and patterns were visualized to extract key insights.
* **Potential Model Recommendation:** While no regression or classification models were implemented in this study, future research could utilize predictive modeling to identify high-risk individuals based on key variables.

**Key Findings**

The following key insights were derived from the analysis:

1. **Demographic Influence:** Certain age groups, genders, and socioeconomic backgrounds exhibited higher alcohol consumption rates.
2. **Behavioral Patterns:** A strong correlation was found between alcohol consumption and other harmful lifestyle habits, such as smoking and frequent social drinking.
3. **Heath Implications:** Excessive alcohol intake is linked to adverse health outcomes, including higher Body Mass Index (BMI) and reported health issues.
4. **Predictive Factors:** Income level, education, and social environment significantly influence drinking patterns.

**Implications**

The findings from this study have important implications for both consumers and policymakers:

* **Public Health Campaigns:** Targeted educational programs can raise awareness and discourage excessive alcohol consumption.
* **Policy Recommendations:** Stricter regulations, such as increased taxation on alcoholic beverages and restrictions on alcoholic advertising in public spaces, could help mitigate the issue.
* **Healthcare Interventions:** Early screening and counseling services can aid in identifying individuals at risk and prevent alcoholic-related health problems.
* **Consumer Awareness:** Individuals can use these insights to make more informed decisions about their drinking habits.

**Limitations**

While this analysis provides valuable insights, there are several limitations:

* **Data Constrains:** The datasets used may not fully represent all populations and regions.
* **Causation vs. Correlation:** This study identifies correlations between variables but does not establish direct causation. Correlation does not always imply causation.
* **Unaccounted Variables:** Other influential factors, such as genetic predisposition and mental health conditions, were not included in the datasets.
* **Potential Biases:** Self-reported data can be inaccurate due to bias or misrepresentation.

Future research could address these limitations by incorporating more comprehensive datasets, conducting longitudinal studies, and implementing advanced predictive modeling techniques.

**Conclusion**

This study provides valuable insights into alcohol consumption patterns and their associated risks. The findings can inform consumers, policymakers and healthcare providers, enabling them to take data-driven actions to promote healthier drinking habits. By leveraging these insights, public health initiatives can be designed to reduce excessive alcohol consumption and its negative societal impacts. Future research and improved modeling approaches could further enhance the accuracy and applicability of this study, contributing to better alcohol policies and public health regulations.