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1. Introduction

In this analysis, we will explore the relationship between three variables: gender, race, and the manner of death in police shootings.

The dataset contains information about individuals involved in fatal police shootings, including their gender, race, and the manner of death.

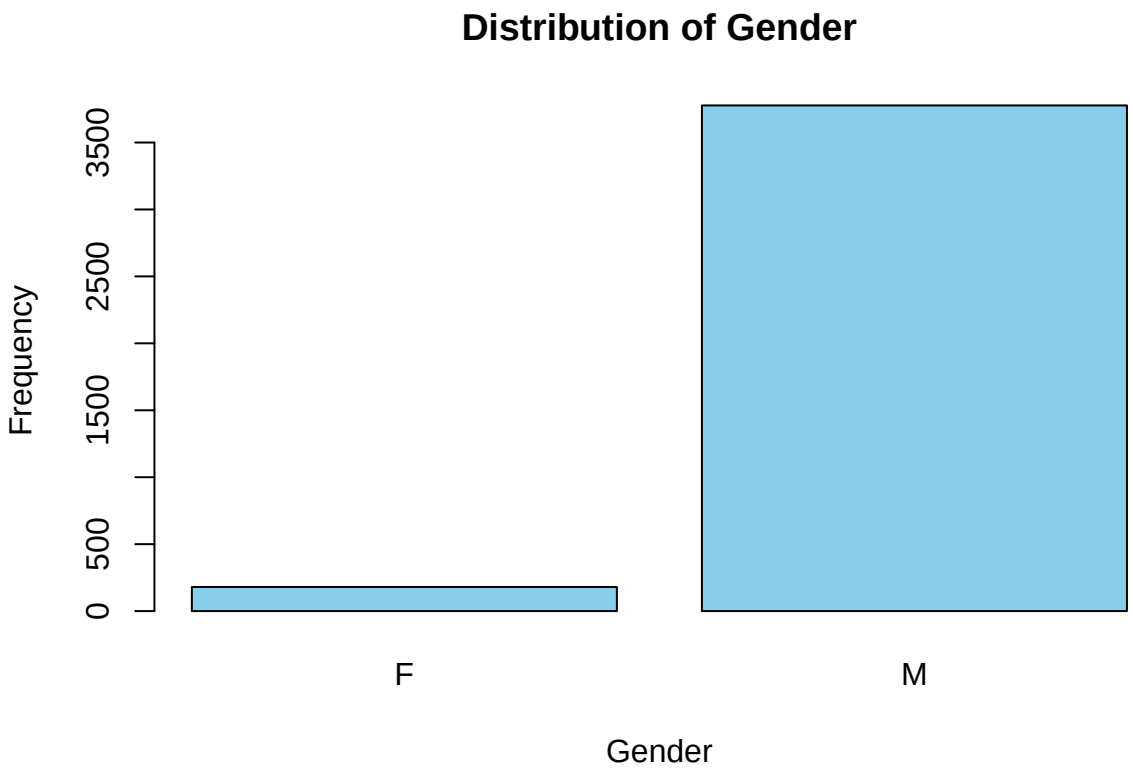
My research question is as follows: "Is there any association between the gender and race of individuals involved in police shootings and the manner of death?"

2. Univariate Exploration

Let's start examining variables individually and calculating summary statistics of each of them. First caluculate the frequency variable of selected variable and then visuallying it on bar chart.

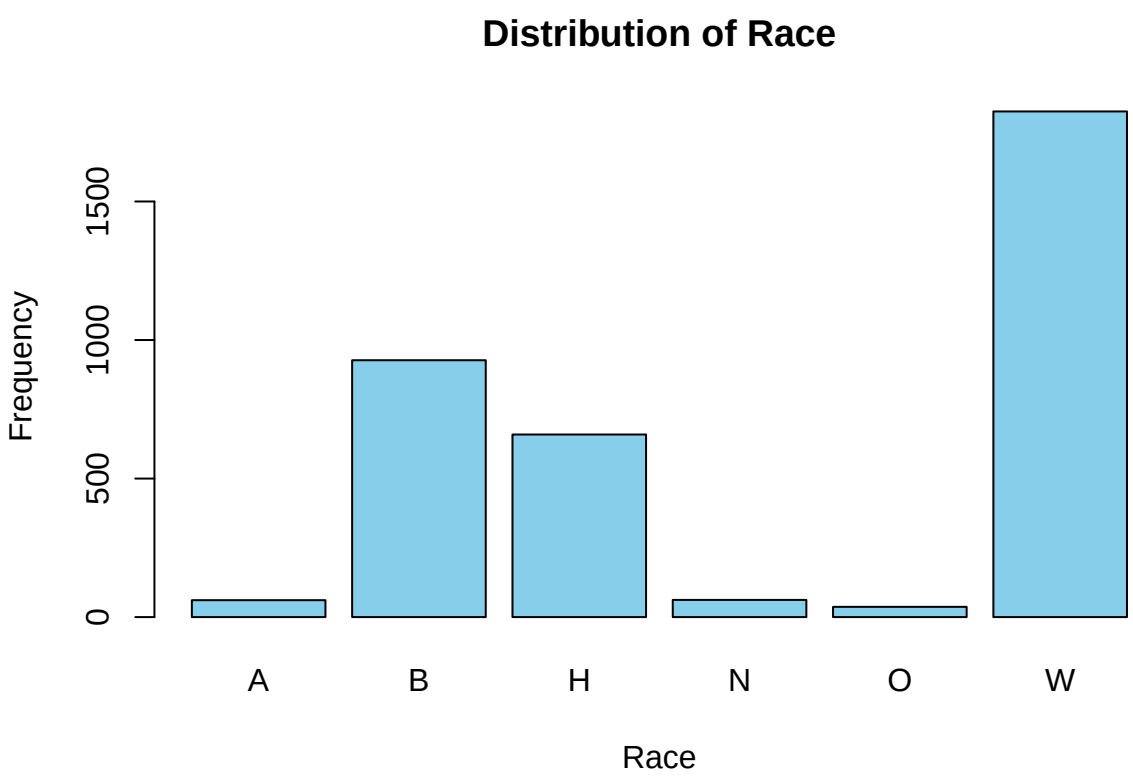
Gender

```
library(readxl)

data <- read_excel("/Users/adi/Desktop/fatal-police-shootings-data.xlsx")

#frequency distribution of gender
gender_distribution <- table(data$gender)

barplot(gender_distribution, main="Distribution of Gender",
        xlab="Gender", ylab="Frequency", col="skyblue")
```



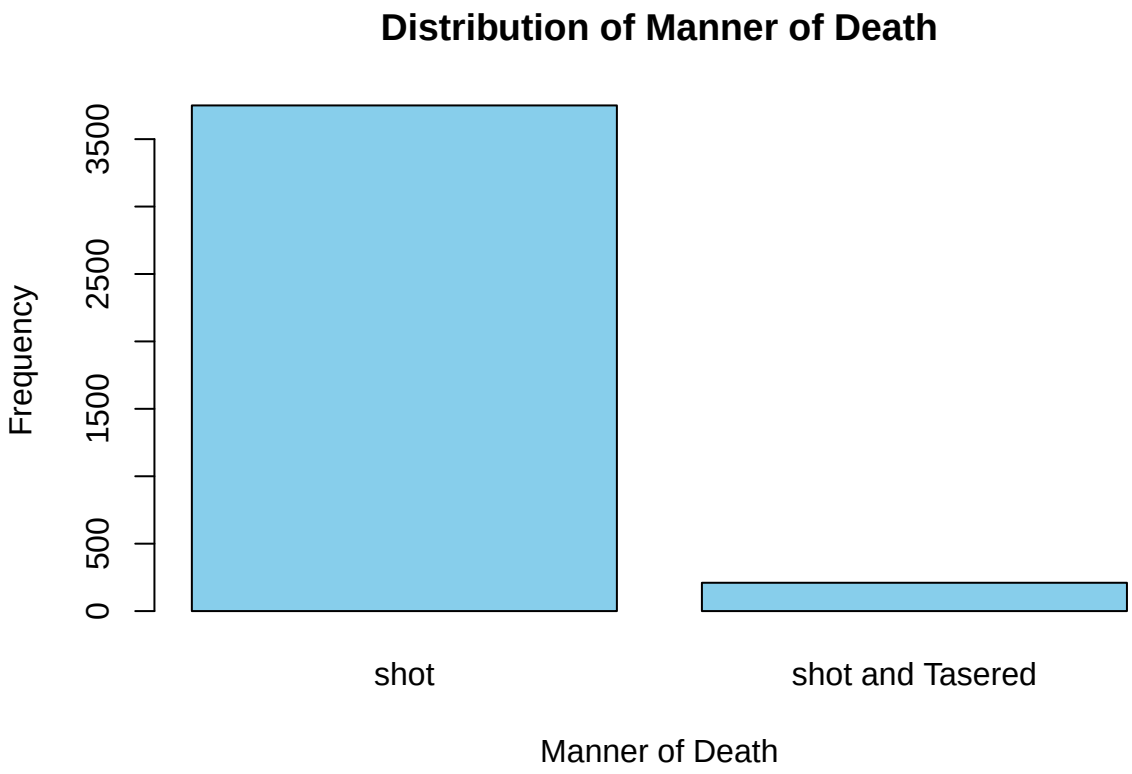
Race

```
# Frequency distribution of race
race_distribution <- table(data$race)

barplot(race_distribution, main="Distribution of Race",
        xlab="Race", ylab="Frequency", col="skyblue")
```



Manner of Death

```
# Frequency distribution of manner of death
manner_of_death_distribution <- table(data$manner_of_death)

barplot(manner_of_death_distribution, main="Distribution of Manner of Death",
        xlab="Manner of Death", ylab="Frequency", col="skyblue")
```

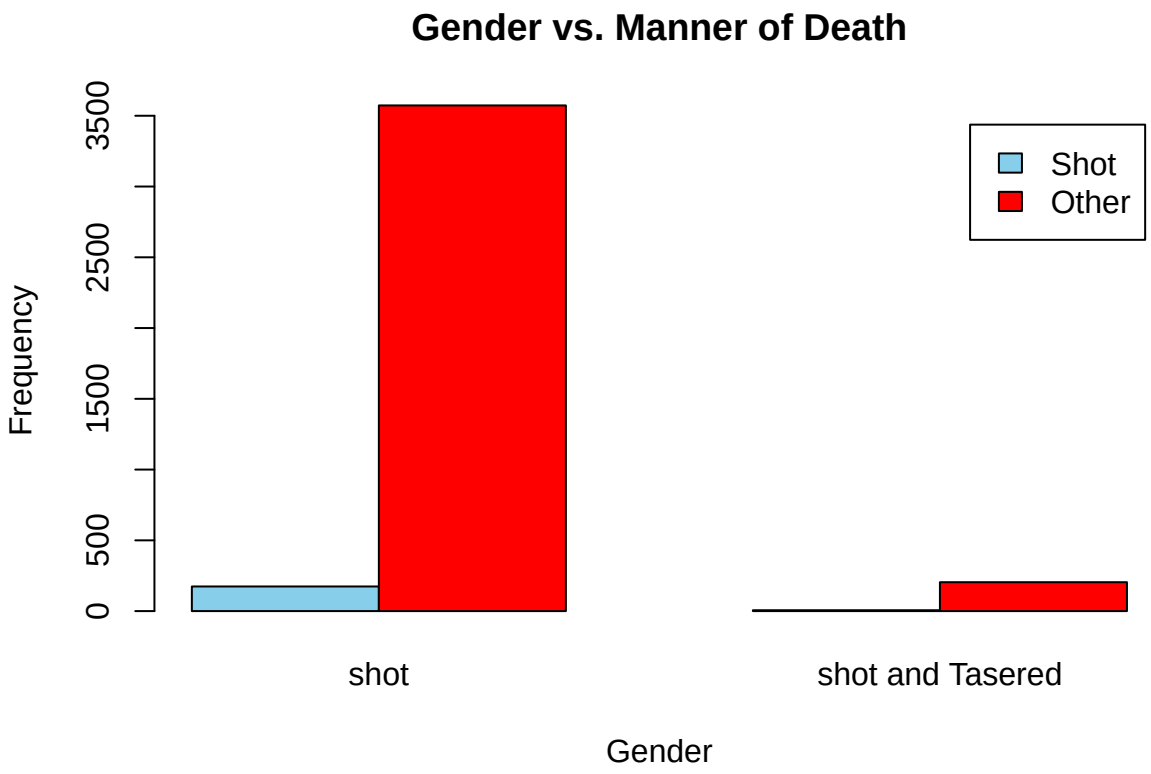


3. Bivariate Exploration

Now comparing the relationship between gender, race, and the manner of death in police shootings. We will calculate grouped summary statistics to examine this relationship. We will visualize each relationship through stacked bar chart.

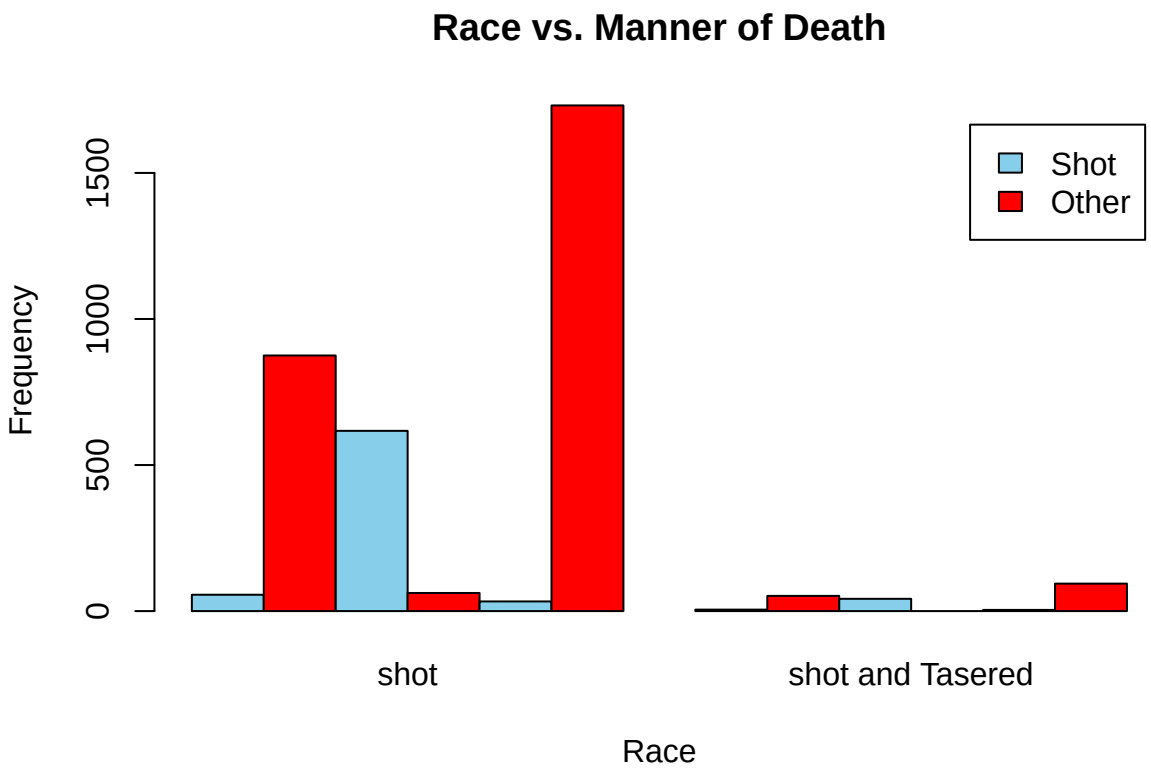
Gender vs. Manner of Death

```
# Contingency table:
gender_manner_table <- table(data$gender, data$manner_of_death)

barplot(gender_manner_table, main="Gender vs. Manner of Death",
        xlab="Gender", ylab="Frequency", col=c("skyblue", "red"),
        legend=c("Shot", "Other"), beside=TRUE)
```



Race vs. Manner of Death

```
# Contingency table
race_manner_table <- table(data$race, data$manner_of_death)

barplot(race_manner_table, main="Race vs. Manner of Death",
        xlab="Race", ylab="Frequency", col=c("skyblue", "red"),
        legend=c("Shot", "Other"), beside=TRUE)
```



4. Conclusion

From our analysis, we can draw the following conclusions:

1. There is an association between gender and the manner of death in police shootings. Males are more likely to be shot compared to other manners of death.

2. There is also a relationship between race and the manner of death. Some racial groups appear to be more likely to experience shootings as the manner of death.