



# Sex Differences in Abnormal Blood Pressure among Heavy Cannabis Consumers Compared to Low-to-Moderate Cannabis Consumers within the Herbal Heart Study

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## BACKGROUND

- Cannabis use has been shown to have diverse effects on blood pressure (BP).
- The relationship between cannabis use and BP remains inconsistent.
- Sex differences in the relationship between cannabis and BP have been largely unexplored.

## OBJECTIVE

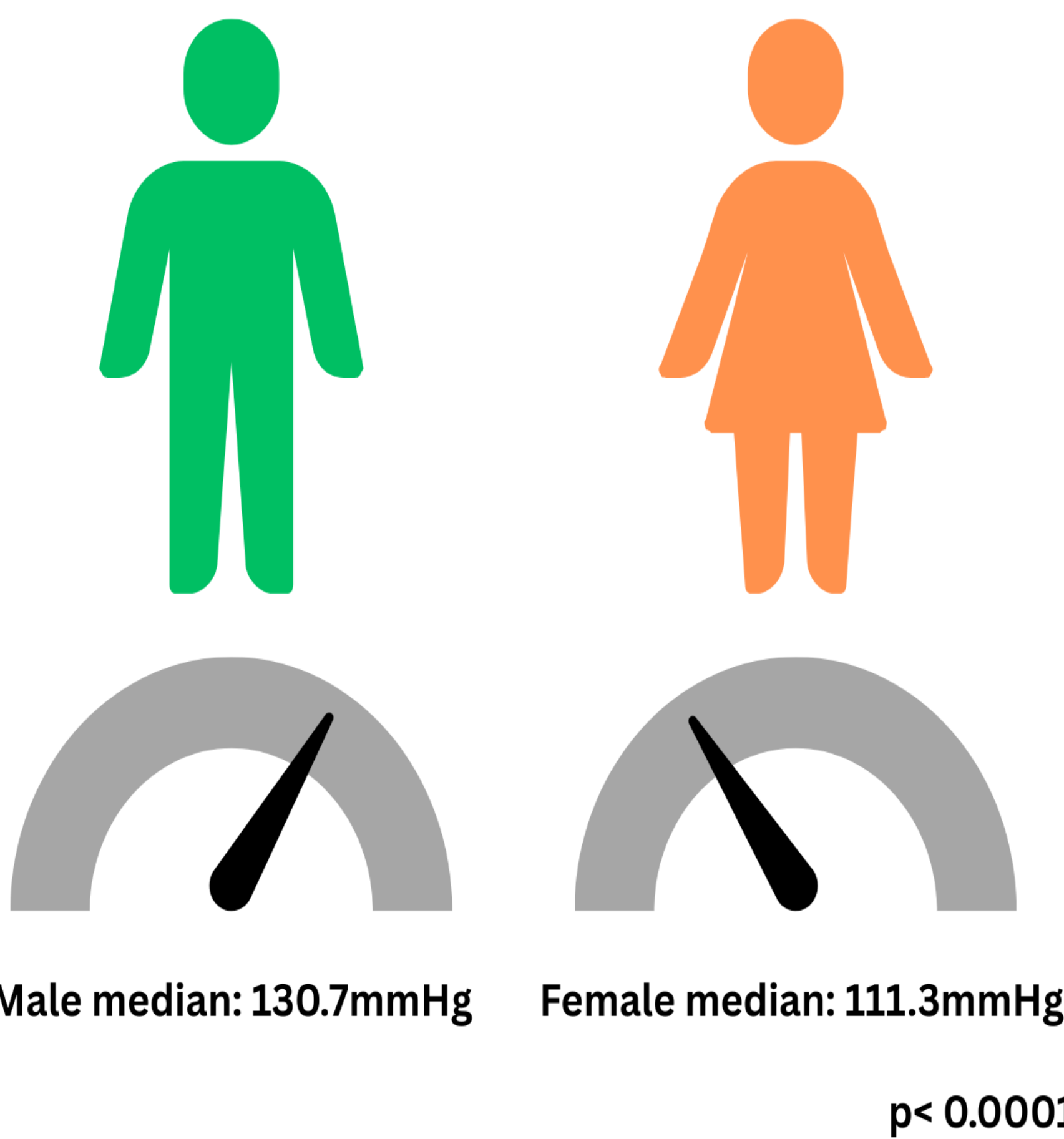
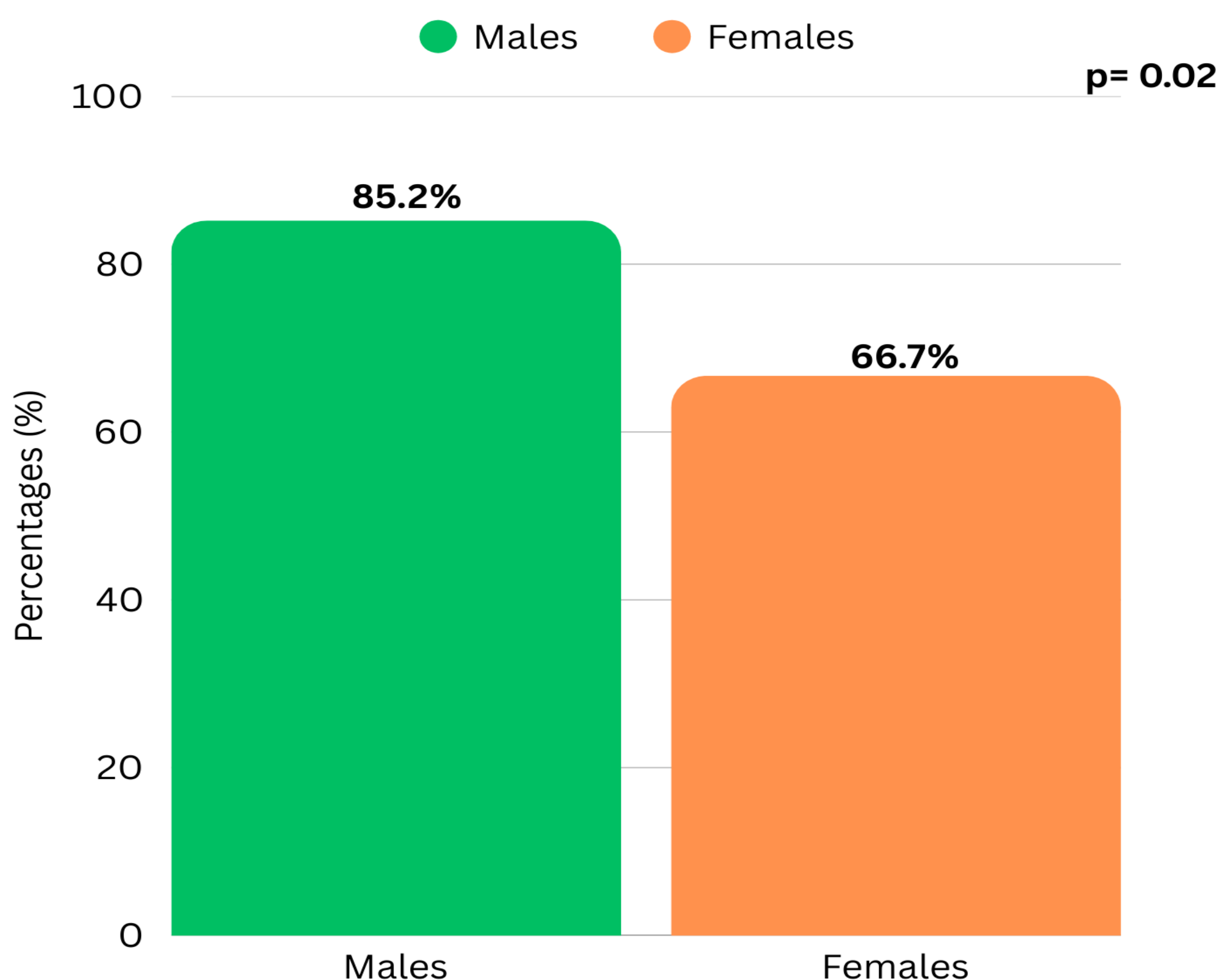
- To examine sex-differences in objectively measured abnormal BP among low-to-moderate and heavy cannabis consumers.

## METHODS

- Data are from 18-to-35-year-olds (N=200) enrolled in the Herbal Heart Study in South Florida.
- Cannabis use was urine-verified.
- Heavy cannabis use was defined as use  $\geq 21$  days per month.
- Abnormal BP was based on an average of three American Heart Association-standardized measurements of systolic and diastolic BP:  $\geq 130$ mmHg systolic and  $\geq 85$ mmHg diastolic.
- Descriptive statistics and Chi-squared tests assessed associations between cannabis use, sex, and BP.
- Logistic regression estimated the odds abnormal BP by cannabis use.

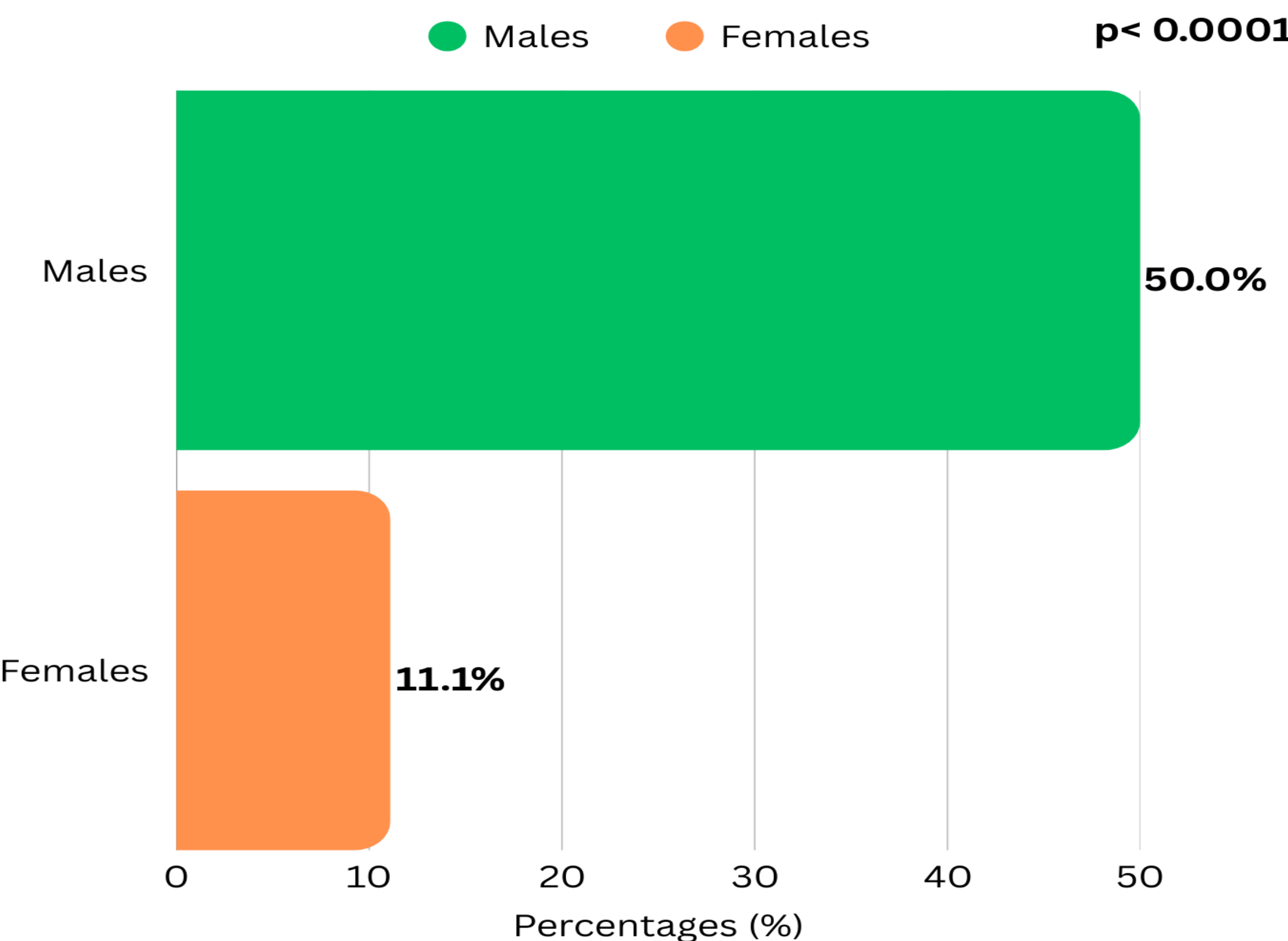
## RESULTS

**Figure 1:**  
*Prevalence of Heavy Cannabis Consumption by Sex*



**Figure 2:**  
*Median Systolic Blood Pressure by Sex Among Cannabis Consumers*

**Figure 3:**  
*Prevalence of Abnormal Blood Pressure Among Cannabis Consumers by Sex*



## KEY FINDINGS

- Cannabis consumption was reported more frequently among males (77.1%,  $p=0.0024$ ) compared to females.
- Heavy cannabis consumption (consuming  $\geq 21$  days a month) was found to be more prevalent among males (85.2%) than females (66.7%,  $p=0.02$ ).
- Male cannabis consumers were found to have a higher median systolic BP compared to females (130.7mmHg vs 111.3mmHg,  $p<0.0001$ ).
- Abnormal BP was identified in 50.0% of male cannabis consumers compared to 11.1% of female cannabis consumers ( $p<0.0001$ ).
- Male heavy cannabis consumers had a higher prevalence of abnormal BP than female heavy cannabis consumers (52.2% vs 14.6%).
- Heavy cannabis consumers had a higher odds of presenting with abnormal BP than non-consumers (AOR: 2.72, 95% CI: 1.10-6.76).

## CONCLUSION

- Heavy cannabis use was associated with increased odds of abnormal BP.
- Specifically, male cannabis consumers with heavy use exhibited higher systolic BP and a greater prevalence of abnormal BP compared to females.

## ACKNOWLEDGEMENTS

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