

Depression

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#Introduction

In this final project, I will pinpoint some data points for “depression”. This specific data is gathered from citizens who live in the thd Los Angeles County. There will be 294 observations of 37 variables conducted in this experiment. I will mainly put my focus on their education, income, and marital status.

#Descriptions

This table presents the summary of the education variable.

```
depress <- read.delim("/Users/yaretd39/Desktop/math130/Data /depress_081217.txt", header=TRUE,sep="\t")
dim(depress)

## [1] 294 37

library(ggplot2)

#Plots

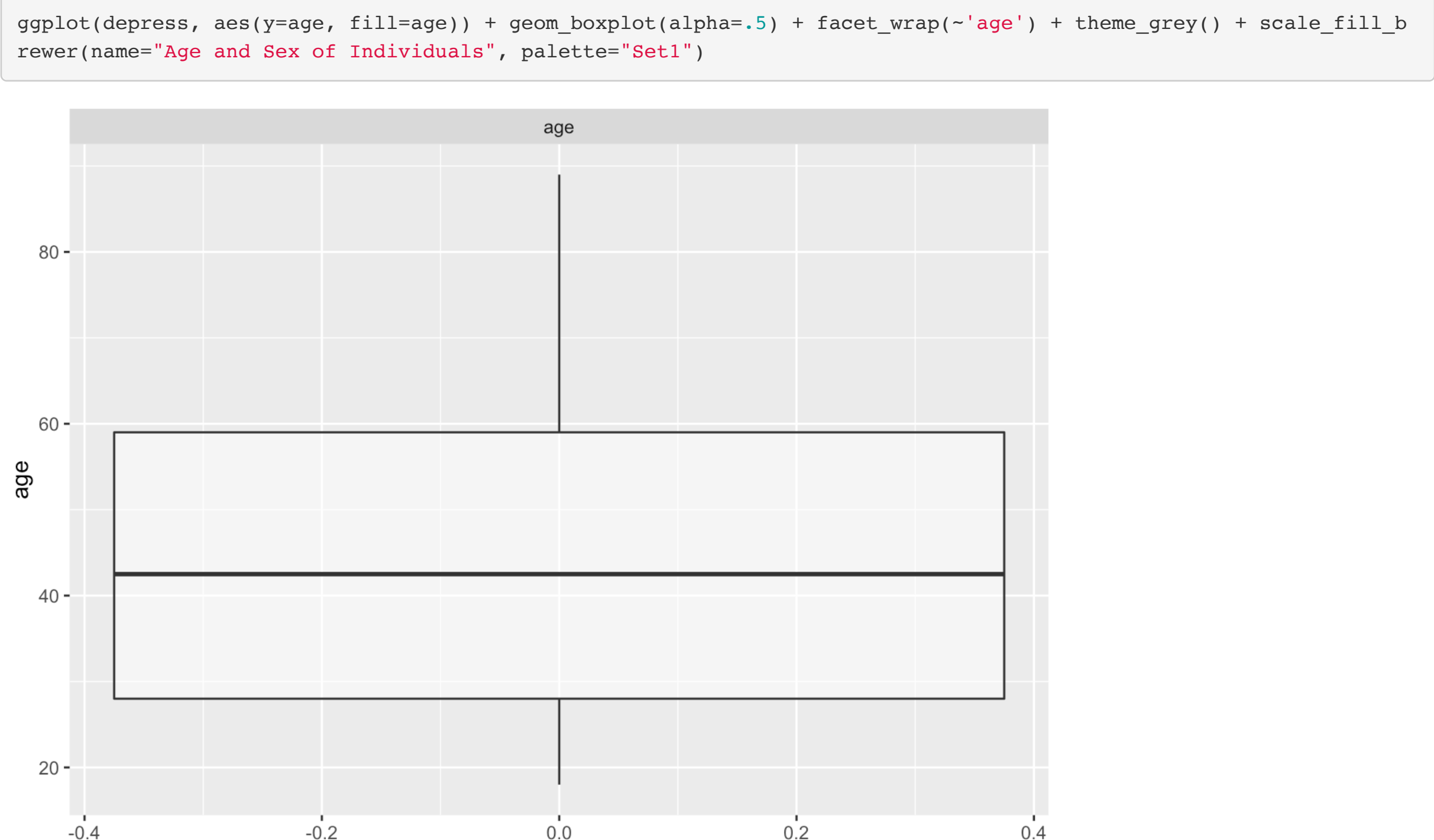
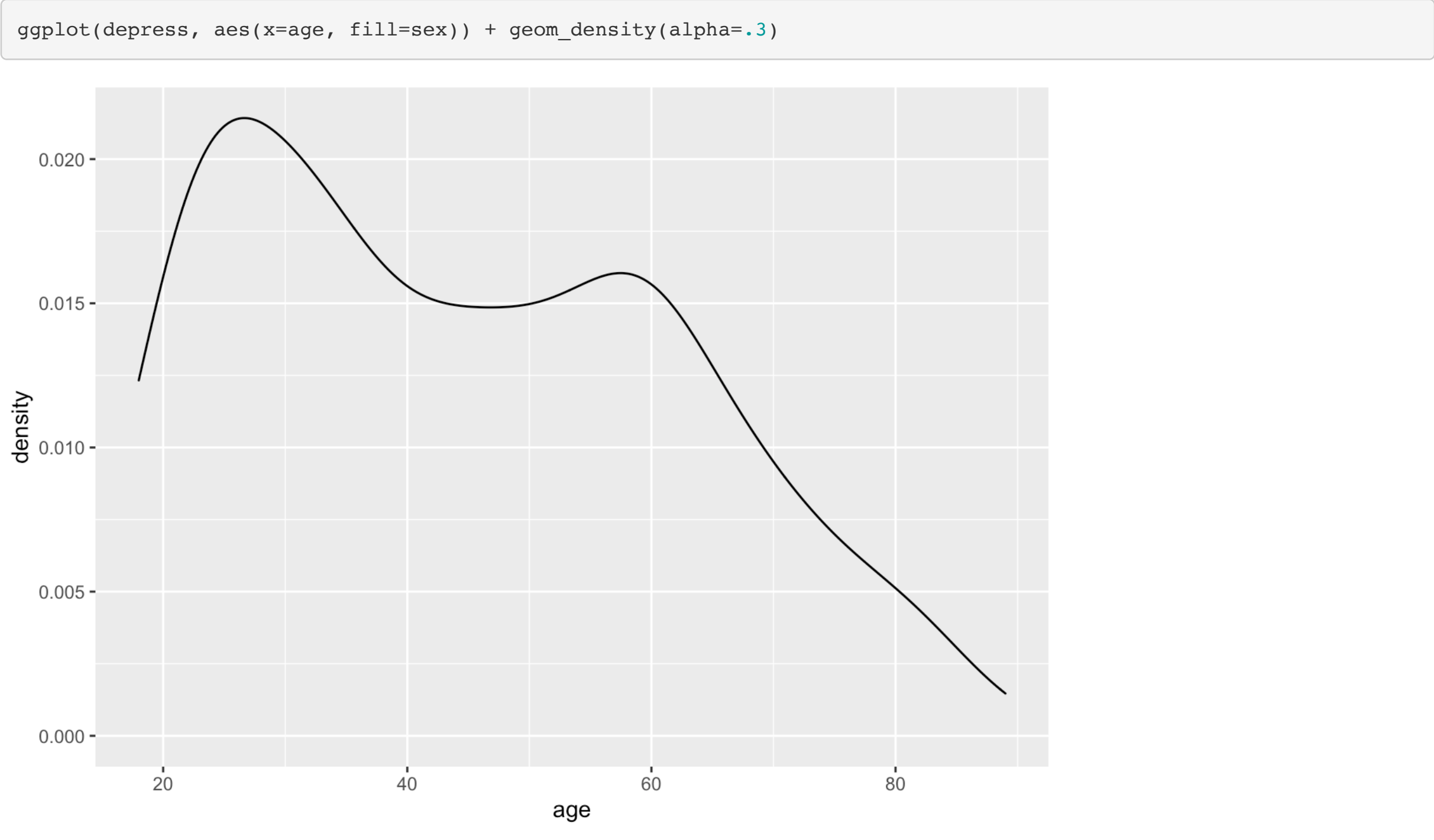
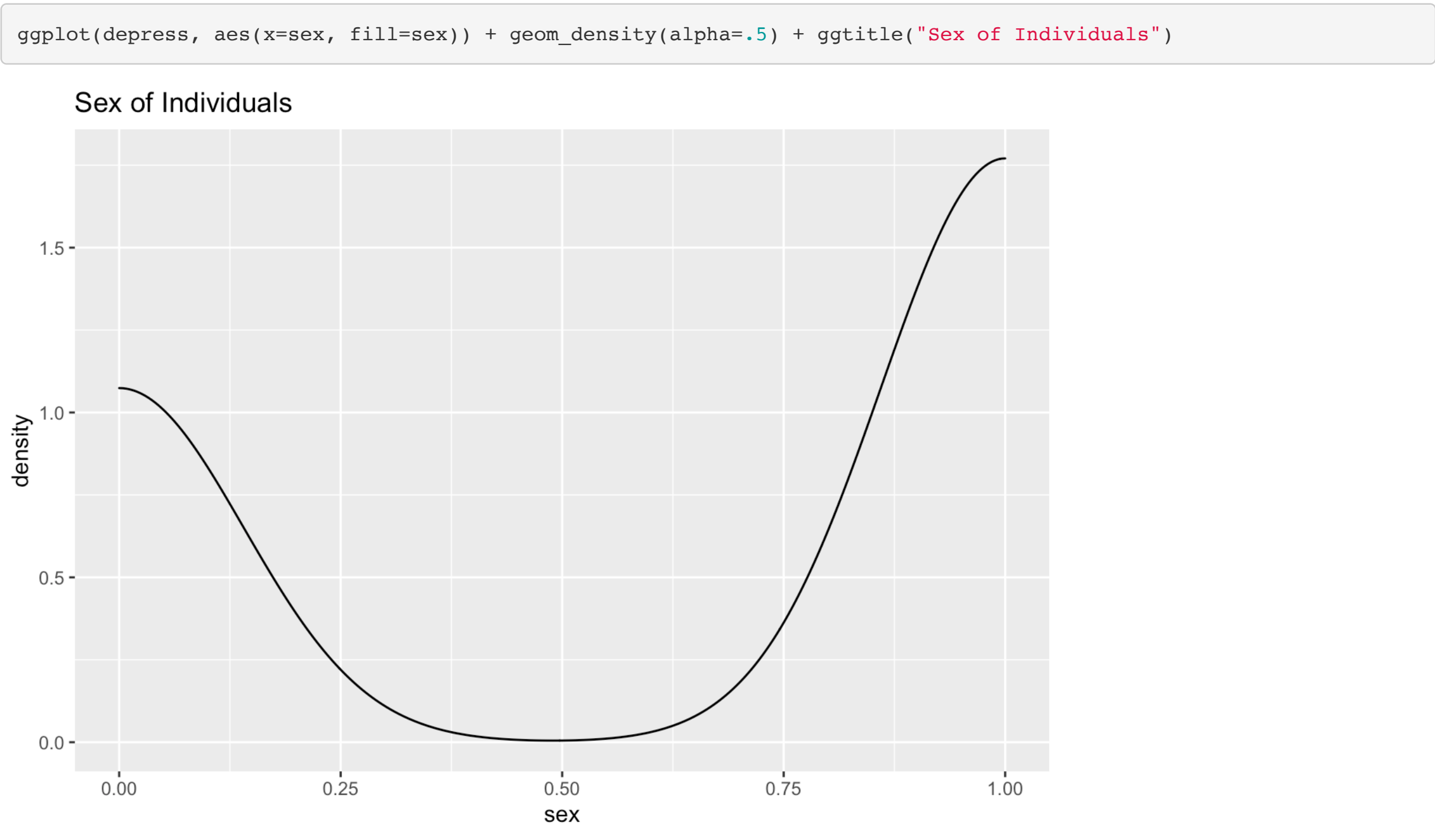
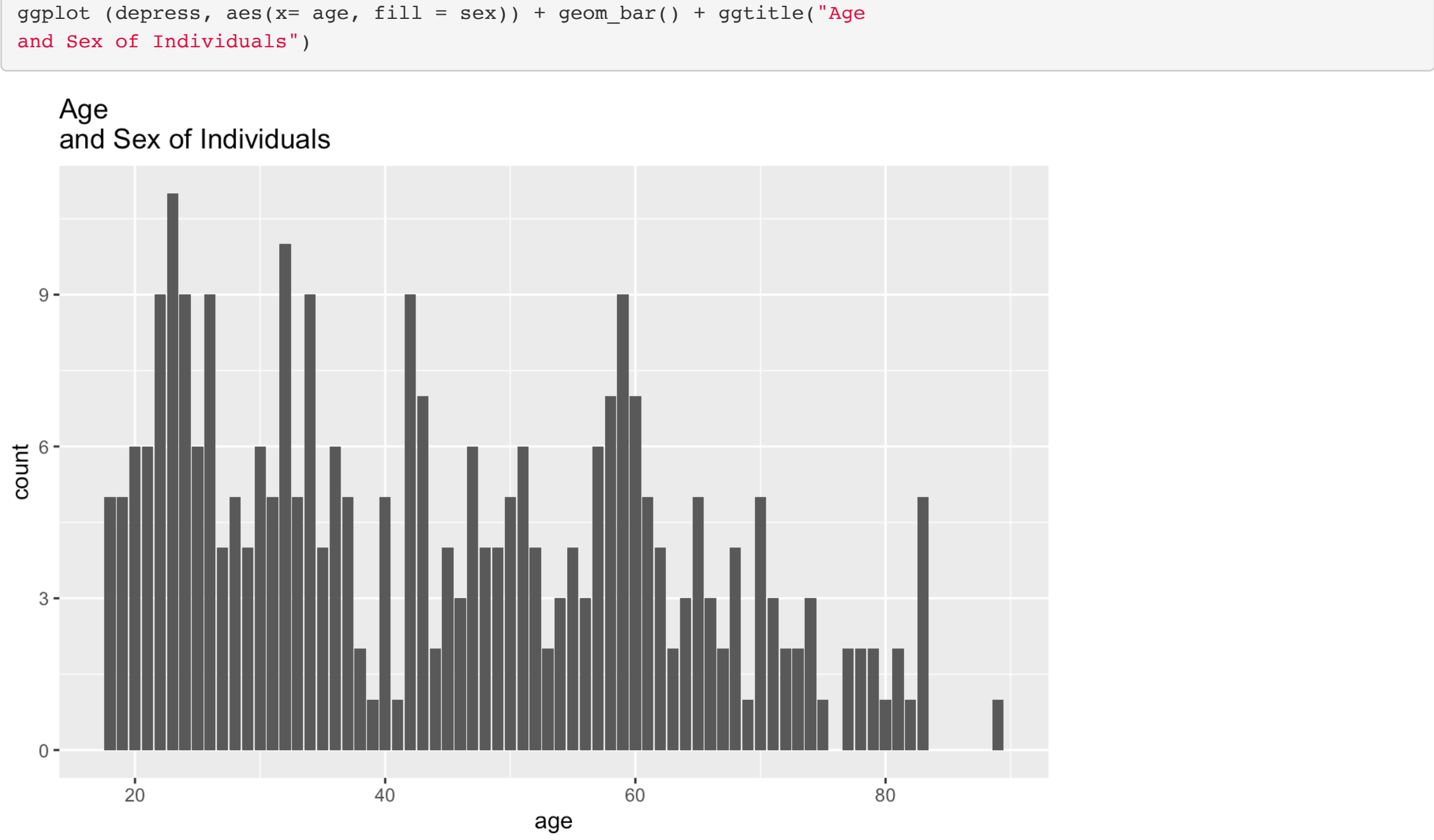
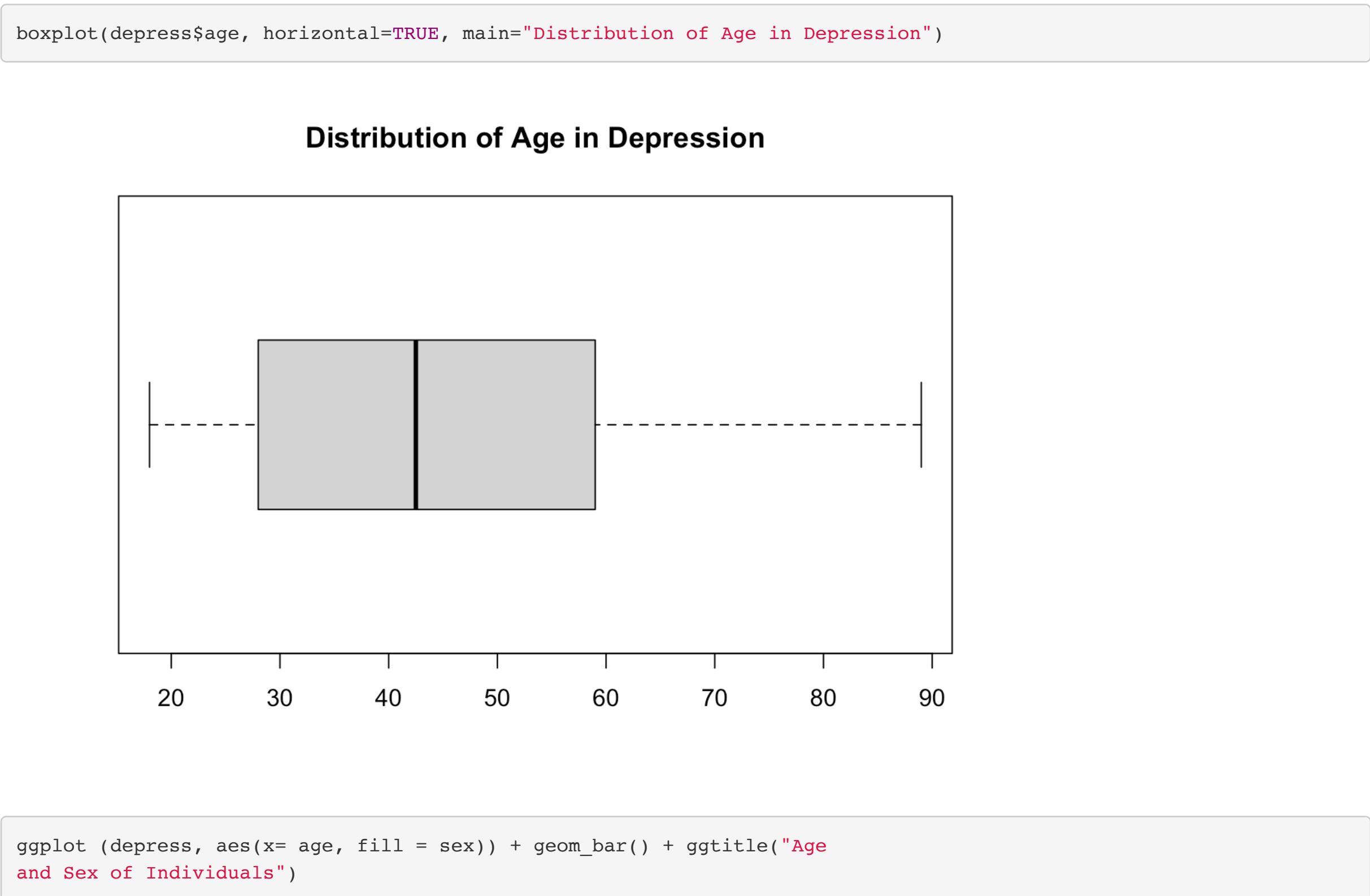
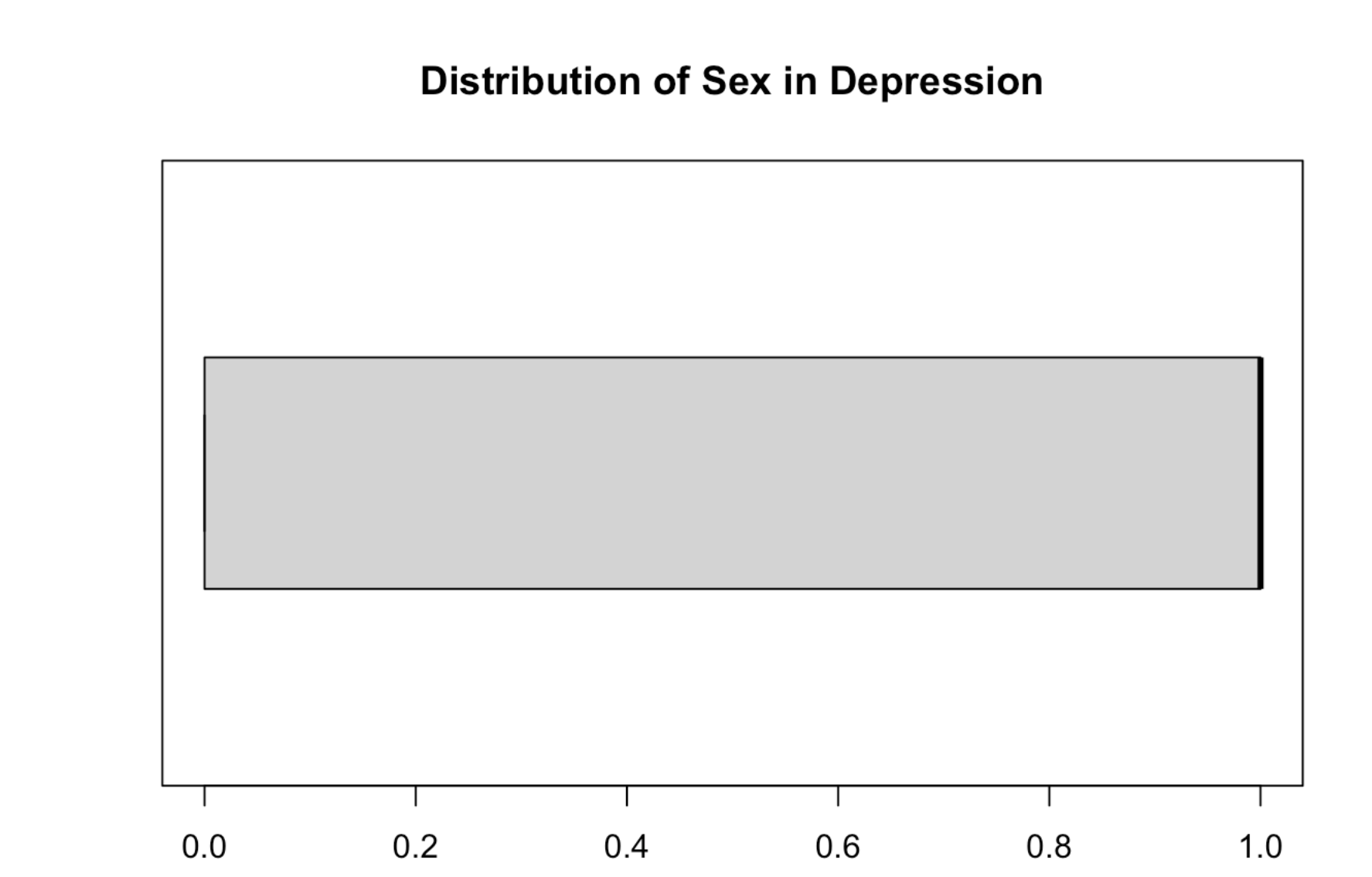
summary(depress$ age, depress$sex)

##      Min.   1st Qu.    Median      Mean 3rd Qu.      Max.
## 18.00   28.00   42.50   44.41   59.00   89.00

round(prop.table(table(depress$sex, depress$age),margin=1),2)

##
##      18  19  20  21  22  23  24  25  26  27  28  29  30  31  32
## 0 0.02 0.02 0.04 0.02 0.05 0.02 0.01 0.02 0.05 0.02 0.01 0.02 0.02 0.03 0.05
## 1 0.02 0.02 0.01 0.02 0.02 0.05 0.04 0.02 0.02 0.01 0.02 0.01 0.02 0.01 0.02
##
##      33  34  35  36  37  38  39  40  41  42  43  44  45  46  47
## 0 0.00 0.01 0.01 0.03 0.03 0.01 0.01 0.04 0.00 0.03 0.01 0.01 0.02 0.02 0.02
## 1 0.03 0.04 0.02 0.02 0.01 0.01 0.00 0.01 0.01 0.03 0.03 0.01 0.01 0.01 0.02
##
##      48  49  50  51  52  53  54  55  56  57  58  59  60  61  62
## 0 0.03 0.03 0.02 0.01 0.01 0.01 0.00 0.01 0.01 0.01 0.03 0.04 0.03 0.02 0.03
## 1 0.01 0.01 0.02 0.03 0.02 0.01 0.02 0.02 0.01 0.03 0.02 0.03 0.02 0.02 0.01
##
##      63  64  65  66  67  68  69  70  71  72  73  74  75  77  78
## 0 0.01 0.03 0.01 0.00 0.00 0.00 0.00 0.02 0.00 0.01 0.02 0.01 0.00 0.01 0.01
## 1 0.01 0.00 0.02 0.02 0.01 0.02 0.01 0.02 0.02 0.01 0.00 0.01 0.01 0.01 0.01
##
##      79  80  81  82  83  89
## 0 0.01 0.00 0.01 0.00 0.01 0.00
## 1 0.01 0.01 0.01 0.01 0.02 0.01

boxplot(depress$sex, horizontal=TRUE, main="Distribution of Sex in Depression")
```



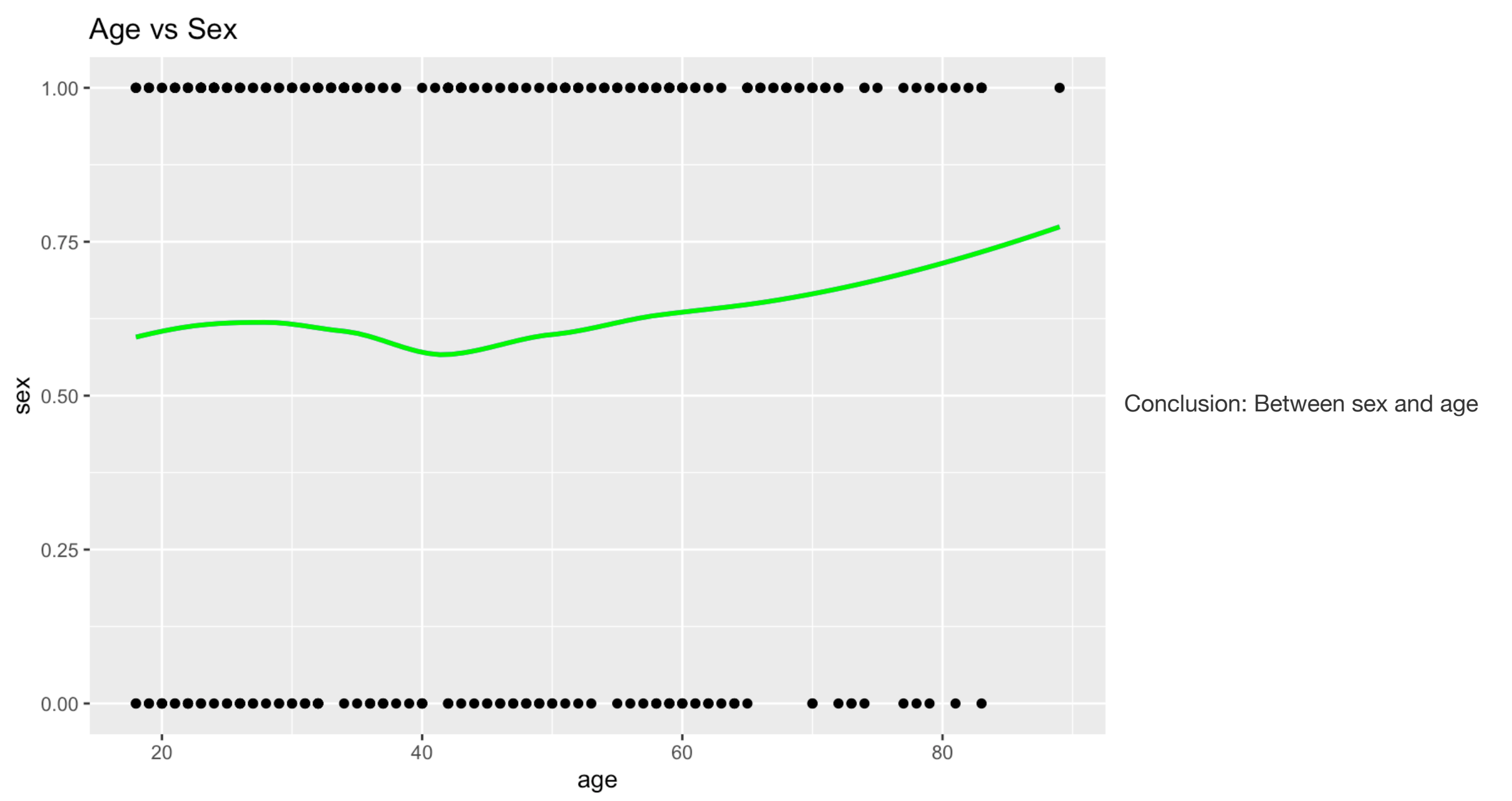
```
ggplot(depress, aes(x=age, y=sex)) + geom_point() + geom_smooth(se=FALSE, method="lm", color="pink") + geom_smooth(h=se=FALSE, color="blue") + geom_smooth(se=FALSE, color="green") + ggtitle("Age vs Sex")

## `geom_smooth()` using formula 'y ~ x'

## Warning: Computation failed in `stat_smooth()`:
## object 'lm' of mode 'function' was not found

## `geom_smooth()` using method = 'loess' and formula 'y ~ x'

## `geom_smooth()` using method = 'loess' and formula 'y ~ x'
```



the data set represented a correlation. Individuals from 20-30 years old were the ones who struggled with depression out of the 294 individuals that were recorded. On the other hand, the rest of them recognized that they do in fact struggle from depression.