

MBRP - BaseLine

Leonardo Martins

11 de fevereiro de 2016

Contents

Abstract	1
Preparing new analysis	1
Loading required packages	1
Descriptive	2
Comparing Means - Multiple t-tests	3
Tobacco Variables	3
QSU - Urge Variables	4
HAD e HAS	6
PANAS - Positive and Negative	8

This is a public document with all scripts used manuscript:

All files used here are available in a public repository accessible by the following url:

<https://github.com/crepeia/MBRP>

Abstract

Preparing new analysis

Loading required packages

```
require(foreign) # Read data stored SPSS
require(car) #Recode Variables
require(psych) #Psychometrics
require(lavaan) #Confirmatory and SEM
require(semPlot) # Plots for SEM
require(semTools) # Comparing SEM models
require(ggplot2) # Plots
require(Hmisc)
```

Descriptive

#FFMQ Total - Summary

```
summary(MBRP_baseline$FFMQTOTAL)
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##       86     114     121     121     128     151
```

```
sd(MBRP_baseline$FFMQTOTAL)
```

```
## [1] 13.33045
```

#FFMQ Groups (High and Low based on median cut off)

```
describe(MBRP_baseline$FFMQgroup)
```

```
## MBRP_baseline$FFMQgroup
##      n missing  unique
##      98        0        2
##
## Altos (51, 52%), Baixo (47, 48%)
```

##Gender

```
describe(MBRP_baseline$X.1Gênero)
```

```
## MBRP_baseline$X.1Gênero
##      n missing  unique
##      98        0        2
##
## Feminino (78, 80%), Masculino (20, 20%)
```

##Educational Study

```
describe(MBRP_baseline$X.7.1RECODEEscolaridade)
```

```
## MBRP_baseline$X.7.1RECODEEscolaridade
##      n missing  unique
##      98        0        5
##
## 0 ANOS DE ESTUDO ATÉ 4 ANOS      (21, 21%)
## 5 ANOS DE ESTUDO ATÉ 8 ANOS      (15, 15%)
## 9 ANOS DE ESTUDO ATÉ 11 ANOS     (43, 44%)
## NA                               (1, 1%)
## SUPERIOR INCOMPLETO OU COMPLETO (18, 18%)
```

##Meditation

```
describe(MBRP_baseline$X.11.1Vocêpraticameditação)
```

```
## MBRP_baseline$X.11.1Vocêpraticameditação
##      n missing  unique
##      98        0        3
##
## NA (1, 1%), Não (93, 95%), Sim (4, 4%)
```

```
#Age
MBRP_baseline$X.2Idade<-as.numeric(MBRP_baseline$X.2Idade)
summary(MBRP_baseline$X.2Idade)
```

```
##      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##      19.00  42.00  49.50  48.77  56.00  71.00
```

```
#Age Standard Deviation
sd(MBRP_baseline$X.2Idade)
```

```
## [1] 11.2761
```

Comparing Means - Multiple t-tests

Tobacco Variables

```
#Descriptive
lapply(MBRP_base[,c(2,3)], function(x) describeBy(x, group =MBRP_base$FFMQgroup))
```

```
## $Escore
## group: Altos
##   vars  n mean   sd median trimmed  mad min max range skew kurtosis  se
## 1    1 50 14.86 6.77    14   14.47 4.45   3 33   30 0.55   -0.02 0.96
## -----
## group: Baixo
##   vars  n mean   sd median trimmed  mad min max range skew kurtosis  se
## 1    1 47 15.98 5.66    16   16.05 4.45   5 27   22 -0.1   -0.55 0.83
##
## $FAGERTRONTOTAL
## group: Altos
##   vars  n mean   sd median trimmed  mad min max range skew kurtosis  se
## 1    1 51 6.06 2.35     6    6.22 2.97   0 10   10 -0.48   -0.66 0.33
## -----
## group: Baixo
##   vars  n mean   sd median trimmed  mad min max range skew kurtosis  se
## 1    1 47 6.87 1.9     7    6.97 1.48   2 10    8 -0.48   -0.05 0.28
```

```
#Test T
lapply(MBRP_base[,c(2,3)], function(x) t.test(x ~ MBRP_base$FFMQgroup))
```

```
## $Escore
##
## Welch Two Sample t-test
##
## data:  x by MBRP_base$FFMQgroup
## t = -0.88449, df = 93.748, p-value = 0.3787
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
```

```
## -3.630156 1.392709
## sample estimates:
## mean in group Altos mean in group Baixo
##      14.86000      15.97872
##
##
## $FAGERTRONTOTAL
##
## Welch Two Sample t-test
##
## data: x by MBRP_base$FFMQgroup
## t = -1.8915, df = 94.352, p-value = 0.06163
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## -1.6674460 0.0404122
## sample estimates:
## mean in group Altos mean in group Baixo
##      6.058824      6.872340
```

```
#Boxplot Order
#paste(names(MBRP_base[,c(2,3)]), sep=",")
#lapply(MBRP_base[,c(2,3)], function(x) boxplot(x~FFMQgroup, data=MBRP_base, main="Boxplot", #xlab="FFMQgroup"))
#Correlation
print(corr.test(x,MBRP_base[2:3]), short=F)
```

```
## Call:corr.test(x = x, y = MBRP_base[2:3])
## Correlation matrix
##      Escore FAGERTRONTOTAL
## FFMQTOTAL -0.08      -0.31
## Sample Size
##      Escore FAGERTRONTOTAL
## FFMQTOTAL    97      98
## Probability values adjusted for multiple tests.
##      Escore FAGERTRONTOTAL
## FFMQTOTAL  0.46      0
##
## To see confidence intervals of the correlations, print with the short=FALSE option
##
## Confidence intervals based upon normal theory. To get bootstrapped values, try cor.ci
##      lower      r upper      p
## FFMQT-Escore -0.27 -0.08 0.13 0.46
## FFMQT-FAGER -0.48 -0.31 -0.12 0.00
```

QSU - Urge Variables

```
#Descriptive
lapply(MBRP_base[,c(4,5)], function(x) describeBy(x, group =MBRP_base$FFMQgroup))
```

```
## $QSU1
## group: Altos
```

```
## vars n mean sd median trimmed mad min max range skew kurtosis
## 1 1 47 64.02 25.11 65 62.92 26.69 21 119 98 0.33 -0.72
## se
## 1 3.66
## -----
## group: Baixo
## vars n mean sd median trimmed mad min max range skew kurtosis
## 1 1 44 69.52 22.22 68 68.92 22.98 30 119 89 0.2 -0.69
## se
## 1 3.35
##
## $QSU2
## group: Altos
## vars n mean sd median trimmed mad min max range skew kurtosis
## 1 1 48 54.62 16.44 56 54.8 14.08 19 91 72 -0.15 -0.11
## se
## 1 2.37
## -----
## group: Baixo
## vars n mean sd median trimmed mad min max range skew kurtosis
## 1 1 45 62.07 14.95 65 62.68 13.34 27 91 64 -0.41 -0.33
## se
## 1 2.23
```

#Test T

```
lapply(MBRP_base[,c(4,5)], function(x) t.test(x ~ MBRP_base$FFMQgroup))
```

```
## $QSU1
##
## Welch Two Sample t-test
##
## data: x by MBRP_base$FFMQgroup
## t = -1.1084, df = 88.73, p-value = 0.2707
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## -15.363889 4.360988
## sample estimates:
## mean in group Altos mean in group Baixo
## 64.02128 69.52273
##
##
## $QSU2
##
## Welch Two Sample t-test
##
## data: x by MBRP_base$FFMQgroup
## t = -2.2858, df = 90.921, p-value = 0.02459
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## -13.9086361 -0.9746973
## sample estimates:
## mean in group Altos mean in group Baixo
## 54.62500 62.06667
```

```

#Boxplot Order
#paste(names(MBRP_base[,c(4,5)]), sep=",")
#lapply(MBRP_base[,c(4,5)], function(x) boxplot(x~FFMQgroup, data=MBRP_base, main="Boxplot", #xlab="FFMQgroup"))
#Correlation
print(corr.test(x,MBRP_base[4:5]), short=F)

```

```

## Call:corr.test(x = x, y = MBRP_base[4:5])
## Correlation matrix
##           QSU1 QSU2
## FFMQTOTAL -0.17 -0.3
## Sample Size
##           QSU1 QSU2
## FFMQTOTAL   91   93
## Probability values adjusted for multiple tests.
##           QSU1 QSU2
## FFMQTOTAL  0.1 0.01
##
## To see confidence intervals of the correlations, print with the short=FALSE option
##
## Confidence intervals based upon normal theory. To get bootstrapped values, try cor.ci
##           lower      r upper      p
## FFMQT-QSU1 -0.37 -0.17  0.03 0.10
## FFMQT-QSU2 -0.47 -0.30 -0.10 0.01

```

HAD e HAS

```

#Descriptive
lapply(MBRP_base[,c(6,7)], function(x) describeBy(x, group =MBRP_base$FFMQgroup))

```

```

## $HADansiedade
## group: Altos
##   vars  n mean   sd median trimmed  mad min max range skew kurtosis   se
## 1     1 51 10.73 4.01    11   10.68 4.45   3 19   16 0.08   -0.86 0.56
## -----
## group: Baixo
##   vars  n mean   sd median trimmed  mad min max range skew kurtosis   se
## 1     1 47 12.19 3.77    12   12.18 4.45   4 20   16 -0.03   -0.73 0.55
##
## $HADdepressao
## group: Altos
##   vars  n mean   sd median trimmed  mad min max range skew kurtosis   se
## 1     1 51 7.47 3.8     7    7.1 4.45   2 18   16 0.74    0.01 0.53
## -----
## group: Baixo
##   vars  n mean   sd median trimmed  mad min max range skew kurtosis   se
## 1     1 47 9.98 4.07     9    9.97 2.97   1 21   20 0.16    0.26 0.59

```

```

#Teste T
lapply(MBRP_base[,c(6,7)], function(x) t.test(x ~ MBRP_base$FFMQgroup))

```

```
## $HADansiedade
##
## Welch Two Sample t-test
##
## data: x by MBRP_base$FFMQgroup
## t = -1.8667, df = 95.955, p-value = 0.06499
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## -3.02486502 0.09286669
## sample estimates:
## mean in group Altos mean in group Baixo
## 10.72549 12.19149
##
##
## $HADdepressao
##
## Welch Two Sample t-test
##
## data: x by MBRP_base$FFMQgroup
## t = -3.1462, df = 93.822, p-value = 0.002217
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## -4.0910412 -0.9252291
## sample estimates:
## mean in group Altos mean in group Baixo
## 7.470588 9.978723
```

#Boxplot Order

#paste(names(MBRP_base[,c(6,7)]), sep=",")

#lapply(MBRP_base[,c(6,7)], function(x) boxplot(x~FFMQgroup, data=MBRP_base, main="Boxplot", #xlab="FFMQgroup"))

#Correlation

print(corr.test(x, MBRP_base[6:7]), short=F)

```
## Call:corr.test(x = x, y = MBRP_base[6:7])
## Correlation matrix
##          HADansiedade HADdepressao
## FFMQTOTAL      -0.32      -0.45
## Sample Size
## [1] 98
## Probability values adjusted for multiple tests.
##          HADansiedade HADdepressao
## FFMQTOTAL          0          0
##
## To see confidence intervals of the correlations, print with the short=FALSE option
##
## Confidence intervals based upon normal theory. To get bootstrapped values, try cor.ci
##          lower      r upper p
## FFMQT-HADns -0.49 -0.32 -0.13 0
## FFMQT-HADdp -0.60 -0.45 -0.28 0
```

PANAS - Positive and Negative

#Descriptive

```
lapply(MBRP_base[,c(8,9)], function(x) describeBy(x, group =MBRP_base$FFMQgroup))
```

```
## $AfetoPositivo
## group: Altos
##   vars  n mean   sd median trimmed  mad min max range skew kurtosis   se
## 1    1 49 26.98 6.65    28   27.02 7.41  14 41   27 -0.19   -0.96 0.95
## -----
## group: Baixo
##   vars  n mean   sd median trimmed  mad min max range skew kurtosis   se
## 1    1 45 23.33 6.77    23   23.19 7.41  12 39   27 0.17   -0.79 1.01
##
## $AfetoNegativo
## group: Altos
##   vars  n mean   sd median trimmed  mad min max range skew kurtosis   se
## 1    1 50 19.52 6.69    18   19.18 7.41   9 34   25 0.45   -0.88 0.95
## -----
## group: Baixo
##   vars  n mean   sd median trimmed  mad min max range skew kurtosis   se
## 1    1 44 22.34 5.89    21   22.22 5.93  13 33   20 0.31   -1.04 0.89
```

#Teste T

```
lapply(MBRP_base[,c(8,9)], function(x) t.test(x ~ MBRP_base$FFMQgroup))
```

```
## $AfetoPositivo
##
## Welch Two Sample t-test
##
## data:  x by MBRP_base$FFMQgroup
## t = 2.6303, df = 91.029, p-value = 0.01002
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  0.8926763 6.3998407
## sample estimates:
## mean in group Altos mean in group Baixo
##      26.97959      23.33333
##
##
## $AfetoNegativo
##
## Welch Two Sample t-test
##
## data:  x by MBRP_base$FFMQgroup
## t = -2.1749, df = 92, p-value = 0.03221
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
## -5.3969758 -0.2448424
## sample estimates:
## mean in group Altos mean in group Baixo
##      19.52000      22.34091
```



```

#Boxplot Order
#paste(names(MBRP_base[,c(8,9)]), sep=",")
#lapply(MBRP_base[,c(8,9)], function(x) boxplot(x~FFMQgroup, data=MBRP_base, main="Boxplot", #xlab="FFMQgroup"))
#Correlation
print(corr.test(x,MBRP_base[8:9]), short=F)

## Call:corr.test(x = x, y = MBRP_base[8:9])
## Correlation matrix
##           AfetoPositivo AfetoNegativo
## FFMQTOTAL           0.51          -0.35
## Sample Size
## [1] 94
## Probability values adjusted for multiple tests.
##           AfetoPositivo AfetoNegativo
## FFMQTOTAL           0           0
##
## To see confidence intervals of the correlations, print with the short=FALSE option
##
## Confidence intervals based upon normal theory. To get bootstrapped values, try cor.ci
##           lower      r upper p
## FFMQT-AftPs  0.34  0.51  0.64  0
## FFMQT-AftNg -0.52 -0.35 -0.16  0

```