


Branch: master IS4250 / Project / project\_code.mdFind fileCopy path

 xiajingyi format92a8ff1 3 hours ago

1 contributor

577 lines (491 sloc)23.5 KBRawBlameHistory

### Import library

```
## Warning: package 'MASS' was built under R version 3.2.4

## Warning: package 'effects' was built under R version 3.2.4

## Warning: package 'vcd' was built under R version 3.2.4

## Warning: package 'mlogit' was built under R version 3.2.4

## Warning: package 'maxLik' was built under R version 3.2.4

## Warning: package 'miscTools' was built under R version 3.2.4

## Warning: package 'nnet' was built under R version 3.2.4

## Warning: package 'data.table' was built under R version 3.2.4

## Warning: package 'lattice' was built under R version 3.2.4
```

### Convert excel data file into .csv format. Read all data from csv file in R.

### Rename 24 data attributes according to codebook provided.

(Detected some discrepancy and several missing attributes such as self-reported health status)

### Compute Mental Health Score:

- Read self-assessment scores of q201-q290, 90 questions from Symptom Checklist-90-Revised.
- Each question carries 1-5 marks, representing none, mild, moderate, severe, extreme.
- Sum up 90 scores

### Compute Drinking Behaviour Score

- 3 question
- Frequency of drinking
- How many drinks containing alcohol do you have on a typical day when you are drinking?
- How often do you have six or more drinks on one occasion?
- Each question carries 1-5 marks, representing degree of alcohol consumption
- Sum up 3 scores

### Further process data (mainly Categorization)

- Education Attainment
- 4 catrgories: Elementary or lower, Junior high school, High school, College or above

- Gender
- swap sequence into 2 categories: Male, Female
- Number of Accompanying Children
- 3 categories: No children, Cohabiting children, Children residing elsewhere
- Salary
- 4 categories: <1500RMB, 1500-2500RMB, 2500-3500RMB, >=3500RMB
- Number of Cities Resided in
- 2 categories: 1-2, >=3
- Daily Working Hours
- Weekly Working Days
- BMI:
- BMI = weight(kg) / (height(m)^2)
- 3 categories: < 18.5; >= 18.5 and < 24; >=24
- Mental Health
- 2 categories: if MentalHealth score <= 160, Normal; if MentalHealth score > 160, Abnormal
- Smoking
- Current Smoker
- 2 categories: Unhealthy, Healthy
- if smoked in the past 30 days, Unhealthy; else Healthy
- Drinking
- Hazardous Alcohol Consumption
- 2 categories: Unhealthy, Healthy
- if Alcohol Consumption Score >=4 for Male or Alcohol Consumption Score >=3 for Female, Unhealthy; else Healthy
- Daily Sleeping Hours
- 2 categories: Unhealthy, Healthy
- if Daily Sleeping Hours 7-9 hours/night, Health; else Unhealthy
- Sleeping Quality
- 2 categories: 1-2 Good/Fair; 3-4 Poor/Very Poor
- Daily Breakfasts
- 2 categories: Unhealthy, Healthy
- if almost Daily Breakfasts, Health; else Unhealthy
- Daily Fruits and Vegetables Consumption
- 2 categories: Unhealthy, Healthy
- if almost Daily Fruits and Vegetables Consumption, Health; else Unhealthy
- Daily Regular Meals
- 2 categories: Unhealthy, Healthy
- if almost Daily Regular Meals, Health; else Unhealthy

#### Compute Lifestyle Behaviour Score

- 6 factors: CurrentSmoker, HazardousDrink, DailySleepingHours, DailyBreakfast, DailyFruitsVegetables, DailyRegularMeals
- 1 score for every Unhealthy Behavior
- Sum: 0, Healthy; 1-2 Relatively Healthy; 3-6 Unhealthy

#### Till here, end of Section 0 - Data Preparation

#### Section 1 - Chi-square Test for Socio-demographic characteristics of Rural-to-Urban Migrants by Gender

```
##      GenderX
## AgeX   Male Female
##   <=32 1237   1408
##   >32  1574   1265

##
## Pearson's Chi-squared test
##
```

```
## data: Age
## X-squared = 41.241, df = 1, p-value = 1.346e-10
```

```
##
## Occupation      GenderX
## Occupation      Male Female
## Manufacturing   1406   1107
## Construction    677    92
## Hospitality     148    237
## Domestic service 144    430
## Small business  232    403
## Recreation/leisure 204    404
```

```
##
## Pearson's Chi-squared test
##
## data: Occupation
## X-squared = 752.52, df = 5, p-value < 2.2e-16
```

```
##
## WorkplaceScale GenderX
## WorkplaceScale Male Female
## Large          851    649
## Moderate       1101   841
## Small          859   1183
```

```
##
## Pearson's Chi-squared test
##
## data: WorkplaceScale
## X-squared = 110.02, df = 2, p-value < 2.2e-16
```

```
##
## EducationAttainmentX GenderX
## EducationAttainmentX Male Female
## Elementary or lower  53    110
## Junior high school  340   501
## High school         1409  1380
## College             1009   682
```

```
##
## Pearson's Chi-squared test
##
## data: EducationAttainment
## X-squared = 110.89, df = 3, p-value < 2.2e-16
```

```
##
## MaritalStatus      GenderX
## MaritalStatus      Male Female
## Married            2042   1977
## Single              700    631
## Cohabitating        39     47
## Divorced or widowed 30     18
```

```
##
## Pearson's Chi-squared test
##
## data: MaritalStatus
## X-squared = 4.9029, df = 3, p-value = 0.179
```

```
##
## AccompanyChildX      GenderX
## AccompanyChildX      Male Female
## No children          849    796
## Cohabitating children 878    968
## Children residing elsewhere 1084   909
```

```
##
## Pearson's Chi-squared test
##
## data: AccompanyChild
## X-squared = 18, df = 2, p-value = 0.0001234
```

```

##           GenderX
## SalaryX      Male Female
## <1500RMB      168    317
## 1500-2500RMB 1036   1492
## 2500-3500RMB 1071    628
## >=3500RMB    536    236

##
## Pearson's Chi-squared test
##
## data: Salary
## X-squared = 356.87, df = 3, p-value < 2.2e-16

##           GenderX
## NumberOfCitiesResidedInX Male Female
##           1-2 1859    2207
##           >=3  952    466

##
## Pearson's Chi-squared test
##
## data: NumberOfCitiesResidedIn
## X-squared = 193, df = 1, p-value < 2.2e-16

##           GenderX
## DailyWorkingHoursX Male Female
##           =8  1273   1310
##           <8   18    62
##           8-11 1066   615
##           >=11  454   686

##
## Pearson's Chi-squared test
##
## data: DailyWorkingHours
## X-squared = 189.59, df = 3, p-value < 2.2e-16

##           GenderX
## WeeklyWorkingDaysX Male Female
##           <=4   57    99
##           5   805   759
##           6  1046  1201
##           7   903   614

##
## Pearson's Chi-squared test
##
## data: WeeklyWorkingDays
## X-squared = 74.984, df = 3, p-value = 3.652e-16

##           GenderX
## TypeOfResidence    Male Female
## Collective dormitory 1040    515
## Renting with others  324    312
## Renting as a family  897   1400
## Renting alone       430    324
## Owning a living place 120    122

##
## Pearson's Chi-squared test
##
## data: TypeOfResidence
## X-squared = 299.26, df = 4, p-value < 2.2e-16

```

## Gender

```
##                               GenderX
## BMIX                          Male Female
##   Under Weight                108    238
##   Normal                    1785   1883
##   Overweight/Obesity        918    552

##
## Pearson's Chi-squared test
##
## data: BMI
## X-squared = 139.2, df = 2, p-value < 2.2e-16

##                               GenderX
## MentalHealthX Male Female
##   Normal      2508   2378
##   Abnormal    303    295

##
## Pearson's Chi-squared test
##
## data: MentalHealth
## X-squared = 0.093297, df = 1, p-value = 0.76

##                               GenderX
## CurrentSmokerX                Male Female
##   Previous smoker/Never smoked 1489   2611
##   Current smoker                1322    62

##
## Pearson's Chi-squared test
##
## data: Smoking
## X-squared = 1451.6, df = 1, p-value < 2.2e-16

##                               GenderX
## HazardousDrinkX                Male Female
##   Nonhazardous alcohol use 1980   2458
##   Hazardous alcohol use    831    215

##
## Pearson's Chi-squared test
##
## data: Drinking
## X-squared = 411.04, df = 1, p-value < 2.2e-16

##                               GenderX
## DailySleepingHoursX            Male Female
##   7-9 Hours/night            2165   2105
##   <7 or >9 Hours/night       646    568

##
## Pearson's Chi-squared test
##
## data: SleepingTime
## X-squared = 2.3835, df = 1, p-value = 0.1226

##                               GenderX
## SleepingQualityX                Male Female
##   Nonhazardous alcohol use 2474   2341
##   Hazardous alcohol use    337    332

##
## Pearson's Chi-squared test
##
```

```
## data: SleepingQuality
## X-squared = 0.2386, df = 1, p-value = 0.6252

##                                     GenderX
## DailyBreakfastX                     Male Female
##   Almost Daily Breakfast            2302    2156
##   Not Almost Daily Breakfast        509     517

##
## Pearson's Chi-squared test
##
## data:  DailyBreakfast
## X-squared = 1.3721, df = 1, p-value = 0.2414


##                                     GenderX
## DailyFruitsVegetablesX              Male Female
##   Almost Daily Fruits Vegetables      2101    2149
##   Not Almost Daily Fruits Vegetables   710     524

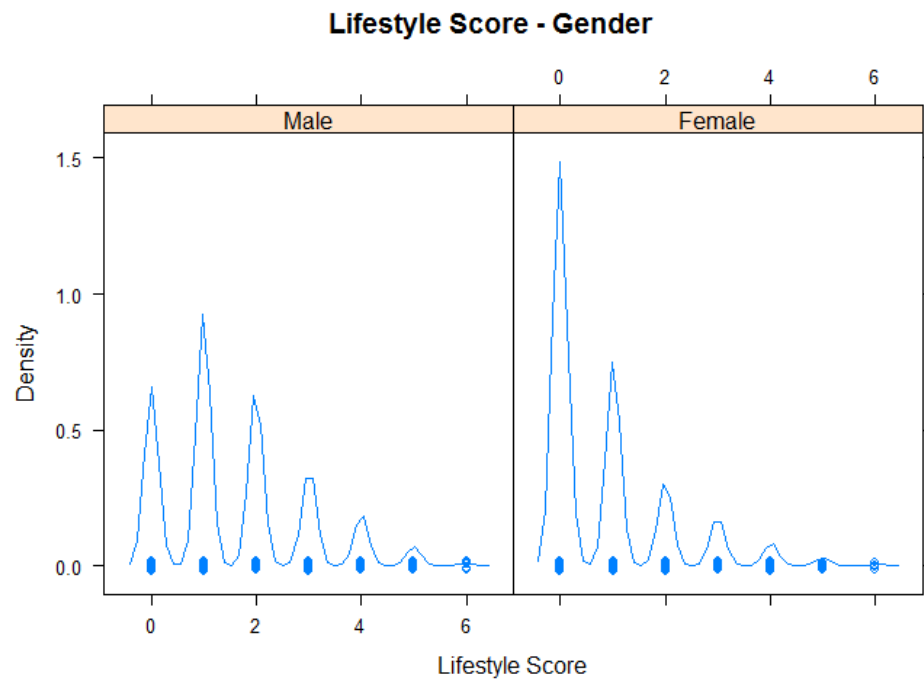
##
## Pearson's Chi-squared test
##
## data:  DailyFruitsVegetables
## X-squared = 25.121, df = 1, p-value = 5.384e-07


##                                     GenderX
## DailyRegularMealsX                  Male Female
##   Almost Daily Regular Meals           2398    2244
##   Not Almost Daily Regular Meals       413     429

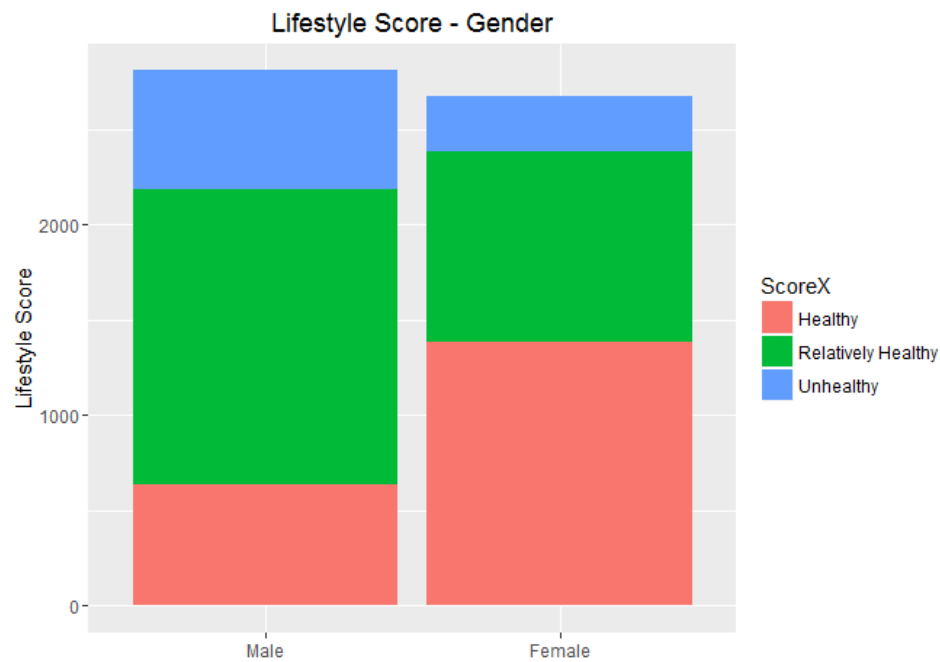
##
## Pearson's Chi-squared test
##
## data:  DailyRegularMeals
## X-squared = 1.9416, df = 1, p-value = 0.1635


##                                     GenderX
## ScoreX                              Male Female
##   Healthy                             640     1385
##   Relatively Healthy                   1544    1001
##   Unhealthy                            627     287

##
## Pearson's Chi-squared test
##
## data:  LifestyleScoreX
## X-squared = 513.27, df = 2, p-value < 2.2e-16
```



<!-- -->



<!-- -->

### Section 3 - Association between lifestyle Score and socio-demographic characteristics and phiscal and mental status (By Gender)

#### 3.1 For Male rural-to-urban migrants

```
##
## Call:
## glm(formula = ScoreX ~ AGE1 + OCCUPATION1 + WORKPLACESCALE1 +
##   EDUCATIONATTAINMENT1 + MARITALSTATUS1 + ACCOMPANYCHILD1 +
##   SALARY1 + NUMBEROFCITIESRESIDEDIN1 + DAILYWORKINGHOURS1 +
##   WEEKLYWORKINGDAYS1 + RESIDENCE1 + BMI1 + MENTALHEALTH1, data = Male)
##
## Deviance Residuals:
##      Min       1Q   Median       3Q      Max
## -1.49797  -0.35625   0.05648   0.25285   1.32332
##
## Coefficients:
```

##		Estimate	Std. Error	t value	Pr(> t )
##	(Intercept)	1.978631	0.156230	12.665	< 2e-16 ***
##	AGE1>32	0.081273	0.029291	2.775	0.00556 **
##	OCCUPATION1Construction	0.063100	0.039560	1.595	0.11081
##	OCCUPATION1Hospitality	0.154353	0.059876	2.578	0.00999 **
##	OCCUPATION1DomesticSservices	-0.044610	0.058487	-0.763	0.44568
##	OCCUPATION1SmallBusiness	0.075734	0.049764	1.522	0.12816
##	OCCUPATION1Recreation/Leisures	0.331250	0.053911	6.144	9.18e-10 ***
##	WORKPLACESCALE1Moderate	-0.008106	0.032049	-0.253	0.80034
##	WORKPLACESCALE1Small	0.115419	0.035588	3.243	0.00120 **
##	EDUCATIONATTAINMENT1JuniorHigh	-0.187499	0.095858	-1.956	0.05056 .
##	EDUCATIONATTAINMENT1HighSchool	-0.111268	0.091229	-1.220	0.22270
##	EDUCATIONATTAINMENT1College	-0.072839	0.093310	-0.781	0.43509
##	MARITALSTATUS1Single	0.056723	0.050426	1.125	0.26074
##	MARITALSTATUS1Cohabiting	0.120444	0.111791	1.077	0.28140
##	MARITALSTATUS1Divorced/Widowed	0.100772	0.119414	0.844	0.39880
##	ACCOMPANYCHIL1Cohabitate	-0.008547	0.051075	-0.167	0.86712
##	ACCOMPANYCHIL1ResideElsewhere	0.007660	0.049181	0.156	0.87624
##	SALARY11500-2500RMB	0.027921	0.054442	0.513	0.60809
##	SALARY12500-3500RMB	0.058638	0.054596	1.074	0.28290
##	SALARY1>=3500RMB	0.117109	0.059141	1.980	0.04778 *
##	NUMBEROFCITIESRESIDEDIN1>=3	-0.004453	0.026825	-0.166	0.86817
##	DAILYWORKINGHOURS1<8	-0.025527	0.154696	-0.165	0.86894
##	DAILYWORKINGHOURS18-11	0.003987	0.030943	0.129	0.89748
##	DAILYWORKINGHOURS1>=11	0.114165	0.039478	2.892	0.00386 **
##	WEEKLYWORKINGDAYS15	-0.163331	0.090661	-1.802	0.07172 .
##	WEEKLYWORKINGDAYS16	-0.048697	0.088735	-0.549	0.58320
##	WEEKLYWORKINGDAYS17	-0.115942	0.089946	-1.289	0.19750
##	RESIDENCE1Rent(with others)	0.006436	0.042956	0.150	0.88091
##	RESIDENCE1Rent(family)	0.023618	0.034763	0.679	0.49695
##	RESIDENCE1Rent(alone)	0.095617	0.039563	2.417	0.01572 *
##	RESIDENCE1OwnLivingPlace	-0.096656	0.067424	-1.434	0.15181
##	BMI1NormalWeight	-0.049859	0.065055	-0.766	0.44350
##	BMI1Overweight	-0.066137	0.067823	-0.975	0.32958
##	MENTALHEALTH1Abnormal	0.358392	0.039948	8.972	< 2e-16 ***

## ---

## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

##

## (Dispersion parameter for gaussian family taken to be 0.4152092)

##

## Null deviance: 1266.9 on 2810 degrees of freedom

## Residual deviance: 1153.0 on 2777 degrees of freedom

## AIC: 5542.3

##

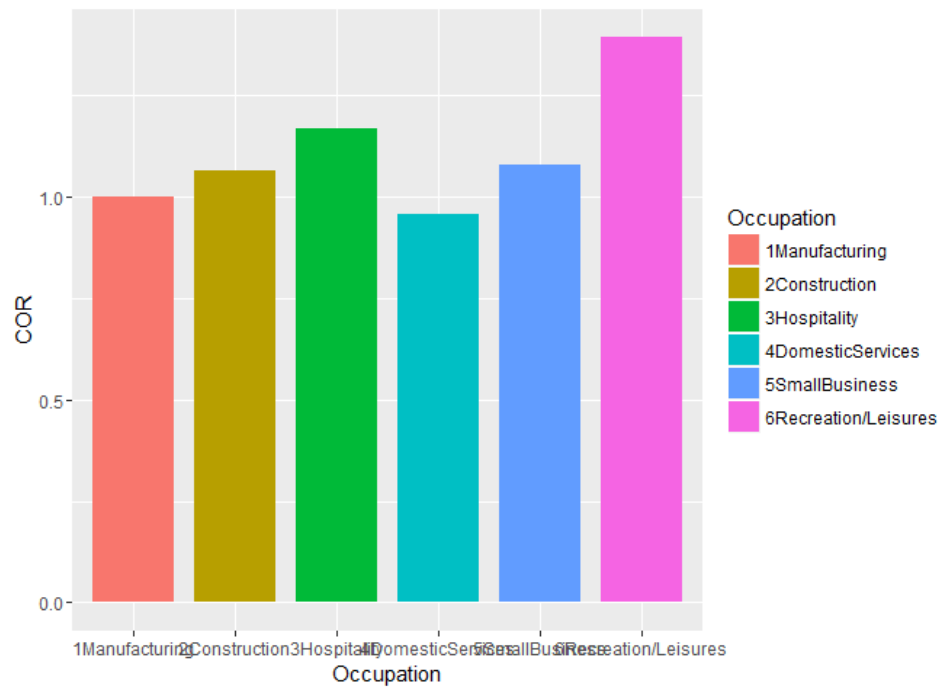
## Number of Fisher Scoring iterations: 2

##		COR	2.5 %	97.5 %
##	(Intercept)	7.2328332	5.3250680	9.824077
##	AGE1>32	1.0846672	1.0241515	1.148759
##	OCCUPATION1Construction	1.0651334	0.9856685	1.151005
##	OCCUPATION1Hospitality	1.1669024	1.0376905	1.312204
##	OCCUPATION1DomesticSservices	0.9563699	0.8527894	1.072531
##	OCCUPATION1SmallBusiness	1.0786757	0.9784343	1.189187
##	OCCUPATION1Recreation/Leisures	1.3927085	1.2530583	1.547922
##	WORKPLACESCALE1Moderate	0.9919265	0.9315353	1.056233
##	WORKPLACESCALE1Small	1.1223432	1.0467270	1.203422
##	EDUCATIONATTAINMENT1JuniorHigh	0.8290299	0.6870298	1.000380
##	EDUCATIONATTAINMENT1HighSchool	0.8946991	0.7482083	1.069871
##	EDUCATIONATTAINMENT1College	0.9297503	0.7743564	1.116328
##	MARITALSTATUS1Single	1.0583623	0.9587638	1.168307
##	MARITALSTATUS1Cohabiting	1.1279970	0.9060484	1.404315
##	MARITALSTATUS1Divorced/Widowed	1.1060244	0.8752245	1.397687
##	ACCOMPANYCHIL1Cohabitate	0.9914896	0.8970421	1.095881
##	ACCOMPANYCHIL1ResideElsewhere	1.0076896	0.9150892	1.109660
##	SALARY11500-2500RMB	1.0283146	0.9242410	1.144107
##	SALARY12500-3500RMB	1.0603913	0.9527829	1.180153
##	SALARY1>=3500RMB	1.1242418	1.0011954	1.262411

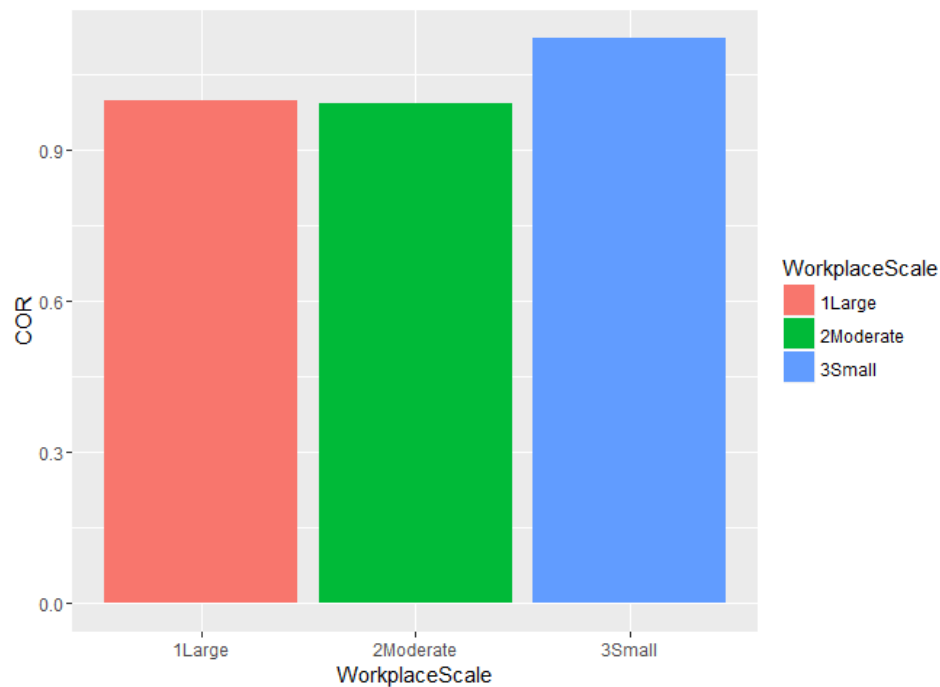


## NUMBEROFCITIESRESIDEDIN1>=3	0.9955571	0.9445671	1.049300
## DAILYWORKINGHOURS1<8	0.9747957	0.7198406	1.320051
## DAILYWORKINGHOURS18-11	1.0039951	0.9449160	1.066768
## DAILYWORKINGHOURS1>=11	1.1209372	1.0374744	1.211114
## WEEKLYWORKINGDAYS15	0.8493102	0.7110422	1.014465
## WEEKLYWORKINGDAYS16	0.9524701	0.8004239	1.133398
## WEEKLYWORKINGDAYS17	0.8905267	0.7465949	1.062206
## RESIDENCE1Rent(with others)	1.0064568	0.9251902	1.094862
## RESIDENCE1Rent(family)	1.0238990	0.9564595	1.096094
## RESIDENCE1Rent(alone)	1.1003380	1.0182394	1.189056
## RESIDENCE1OwnLivingPlace	0.9078685	0.7954840	1.036130
## BMI1NormalWeight	0.9513637	0.8374750	1.080740
## BMI1Overweight	0.9360028	0.8194939	1.069076
## MENTALHEALTH1Abnormal	1.4310271	1.3232573	1.547574

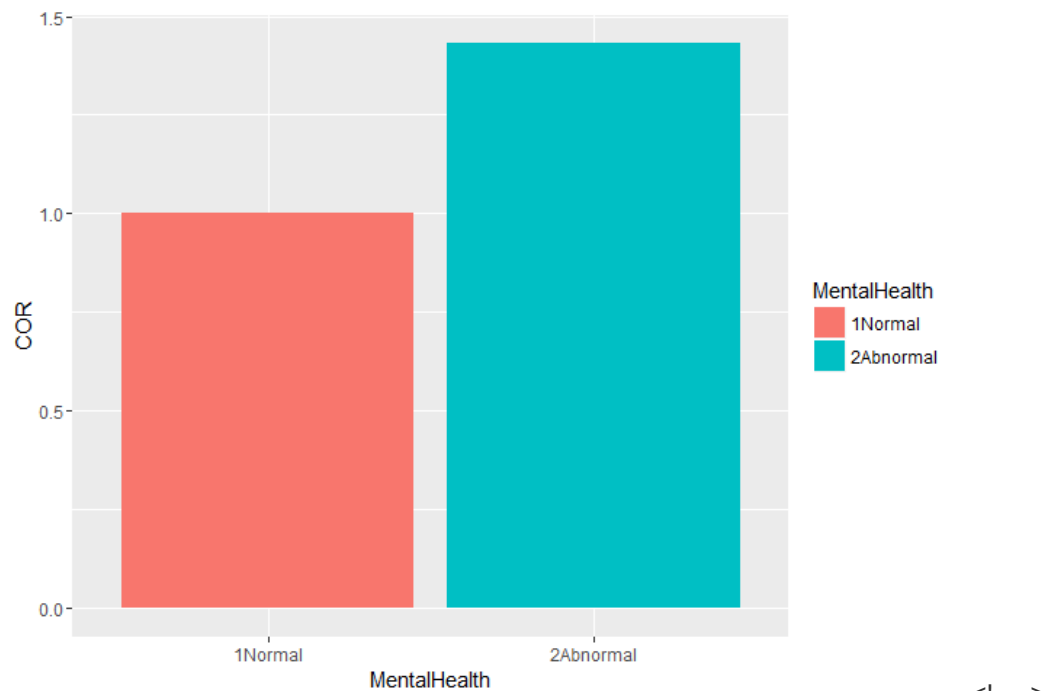
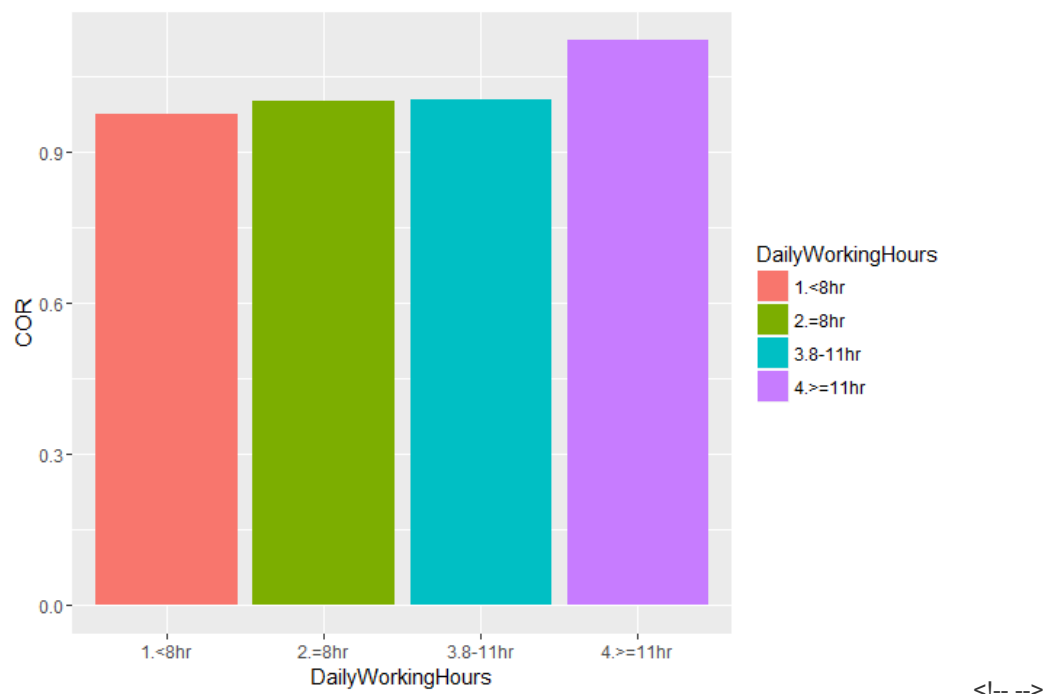
Male - significant risk factor COR visualization



<!-- -->



<!-- -->



### 3.2 For Female rural-to-urban migrants

```
##
## Call:
## glm(formula = ScoreX ~ AGE2 + OCCUPATION2 + WORKPLACESCALE2 +
##   EDUCATIONATTAINMENT2 + MARITALSTATUS2 + ACCOMPANYCHILD2 +
##   SALARY2 + NUMBEROFCITIESRESIDEDIN2 + DAILYWORKINGHOURS2 +
##   WEEKLYWORKINGDAYS2 + RESIDENCE2 + BMI2 + MENTALHEALTH2, data = Female)
##
## Deviance Residuals:
##      Min       1Q   Median       3Q      Max
## -1.6138  -0.4594  -0.2414   0.5136   1.7972
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)    1.293523    0.120644  10.722  < 2e-16 ***
```

```

## AGE2>32                0.014917  0.029424  0.507 0.612224
## OCCUPATION2Construction -0.021491  0.073038 -0.294 0.768600
## OCCUPATION2Hospitality  0.147091  0.047071  3.125 0.001798 **
## OCCUPATION2DomesticSservices 0.108534  0.039136  2.773 0.005589 **
## OCCUPATION2SmallBusiness 0.098447  0.043174  2.280 0.022675 *
## OCCUPATION2Recreation/Leisures 0.517682  0.045688 11.331 < 2e-16 ***
## WORKPLACESCALE2Moderate 0.010667  0.035235  0.303 0.762112
## WORKPLACESCALE2Small 0.051326  0.034373  1.493 0.135499
## EDUCATIONATTAINMENT2JuniorHigh 0.039865  0.064800  0.615 0.538470
## EDUCATIONATTAINMENT2HighSchool 0.020335  0.062973  0.323 0.746785
## EDUCATIONATTAINMENT2College 0.018209  0.067369  0.270 0.786959
## MARITALSTATUS2Single 0.193591  0.050926  3.801 0.000147 ***
## MARITALSTATUS2Cohabiting 0.100922  0.098914  1.020 0.307682
## MARITALSTATUS2Divorced/Widowed 0.106013  0.145290  0.730 0.465661
## ACCOMPANYCHILD2Cohabitate -0.012255  0.050199 -0.244 0.807148
## ACCOMPANYCHILD2ResideElsewhere -0.035067  0.048845 -0.718 0.472871
## SALARY21500-2500RMB -0.084068  0.038723 -2.171 0.030019 *
## SALARY22500-3500RMB -0.072600  0.044031 -1.649 0.099298 .
## SALARY2>=3500RMB 0.143917  0.057656  2.496 0.012616 *
## NUMBEROFCITIESRESIDEDIN2>=3 0.085318  0.031630  2.697 0.007033 **
## DAILYWORKINGHOURS2<8 0.045368  0.080913  0.561 0.575049
## DAILYWORKINGHOURS28-11 0.075581  0.032102  2.354 0.018625 *
## DAILYWORKINGHOURS2>=11 0.049497  0.034045  1.454 0.146106
## WEEKLYWORKINGDAYS25 -0.032612  0.071192 -0.458 0.646931
## WEEKLYWORKINGDAYS26 0.004615  0.068104  0.068 0.945979
## WEEKLYWORKINGDAYS27 0.042469  0.068022  0.624 0.532455
## RESIDENCE2Rent(with others) 0.070459  0.047383  1.487 0.137129
## RESIDENCE2Rent(family) -0.012636  0.036423 -0.347 0.728682
## RESIDENCE2Rent(alone) 0.097644  0.045539  2.144 0.032110 *
## RESIDENCE2OwnLivingPlace -0.114915  0.067504 -1.702 0.088810 .
## BMI2NormalWeight 0.053338  0.043179  1.235 0.216841
## BMI2Overweight 0.033017  0.050794  0.650 0.515736
## MENTALHEALTH2Abnormal 0.320589  0.038185  8.396 < 2e-16 ***
## ---

```

```
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
```

```
## (Dispersion parameter for gaussian family taken to be 0.367857)
```

```
##
```

```
## Null deviance: 1220.97 on 2672 degrees of freedom
```

```
## Residual deviance: 970.77 on 2639 degrees of freedom
```

```
## AIC: 4948.3
```

```
##
```

```
## Number of Fisher Scoring iterations: 2
```

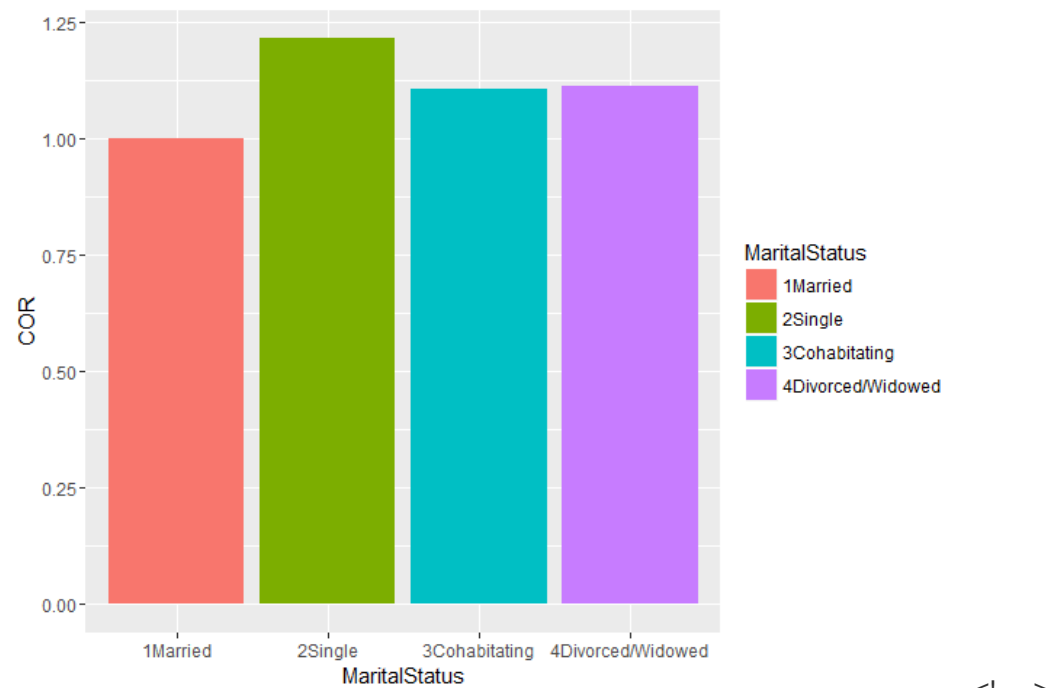
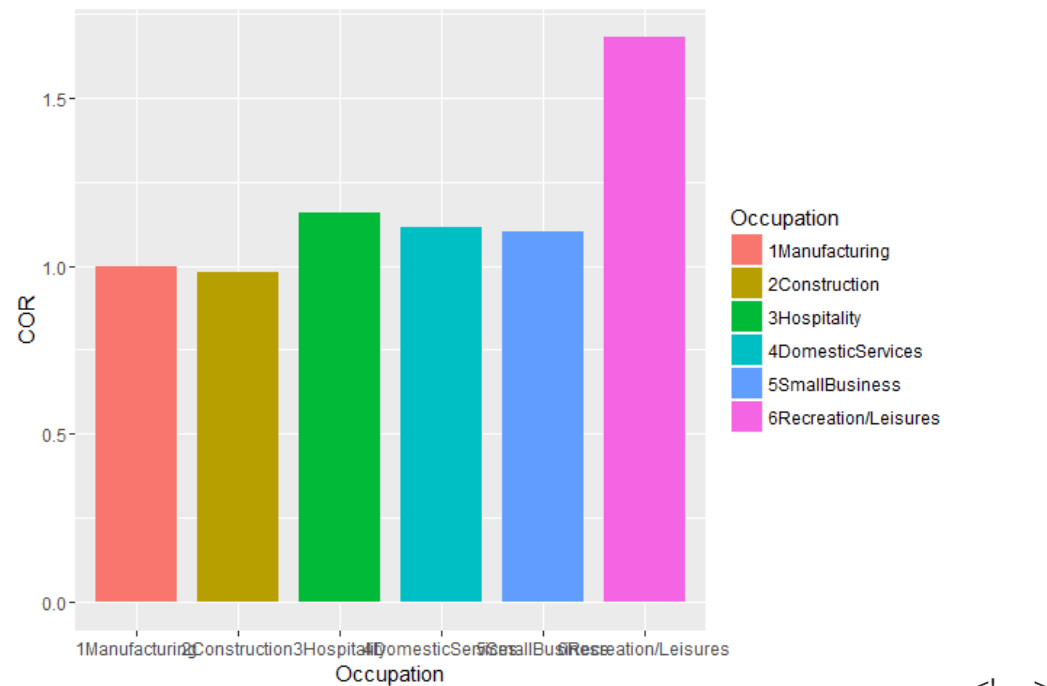
```

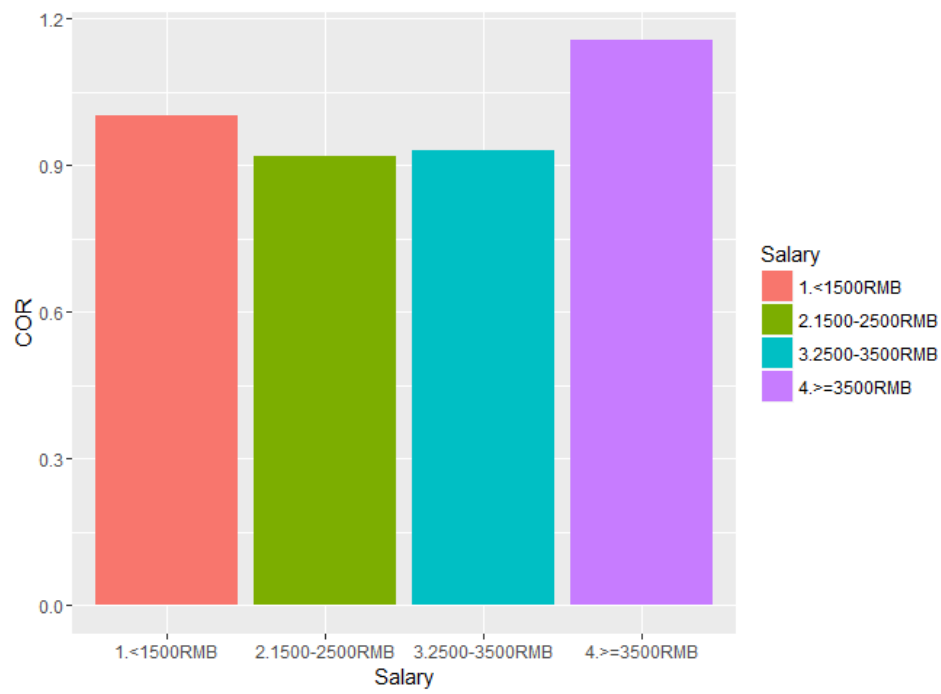
##                COR      2.5 %    97.5 %
## (Intercept)    3.6456074 2.8779112 4.6180902
## AGE2>32        1.0150284 0.9581486 1.0752849
## OCCUPATION2Construction 0.9787387 0.8481963 1.1293723
## OCCUPATION2Hospitality 1.1584592 1.0563645 1.2704211
## OCCUPATION2DomesticSservices 1.1146430 1.0323409 1.2035065
## OCCUPATION2SmallBusiness 1.1034555 1.0139224 1.2008948
## OCCUPATION2Recreation/Leisures 1.6781331 1.5343948 1.8353364
## WORKPLACESCALE2Moderate 1.0107243 0.9432791 1.0829919
## WORKPLACESCALE2Small 1.0526665 0.9840847 1.1260279
## EDUCATIONATTAINMENT2JuniorHigh 1.0406707 0.9165488 1.1816016
## EDUCATIONATTAINMENT2HighSchool 1.0205431 0.9020460 1.1546064
## EDUCATIONATTAINMENT2College 1.0183759 0.8924082 1.1621245
## MARITALSTATUS2Single 1.2135993 1.0983154 1.3409839
## MARITALSTATUS2Cohabiting 1.1061900 0.9112421 1.3428443
## MARITALSTATUS2Divorced/Widowed 1.1118359 0.8363149 1.4781265
## ACCOMPANYCHILD2Cohabitate 0.9878195 0.8952573 1.0899520
## ACCOMPANYCHILD2ResideElsewhere 0.9655407 0.8773913 1.0625463
## SALARY21500-2500RMB 0.9193689 0.8521751 0.9918609
## SALARY22500-3500RMB 0.9299730 0.8530831 1.0137930
## SALARY2>=3500RMB 1.1547884 1.0313961 1.2929429
## NUMBEROFCITIESRESIDEDIN2>=3 1.0890634 1.0235987 1.1587150
## DAILYWORKINGHOURS2<8 1.0464129 0.8929556 1.2262423

```

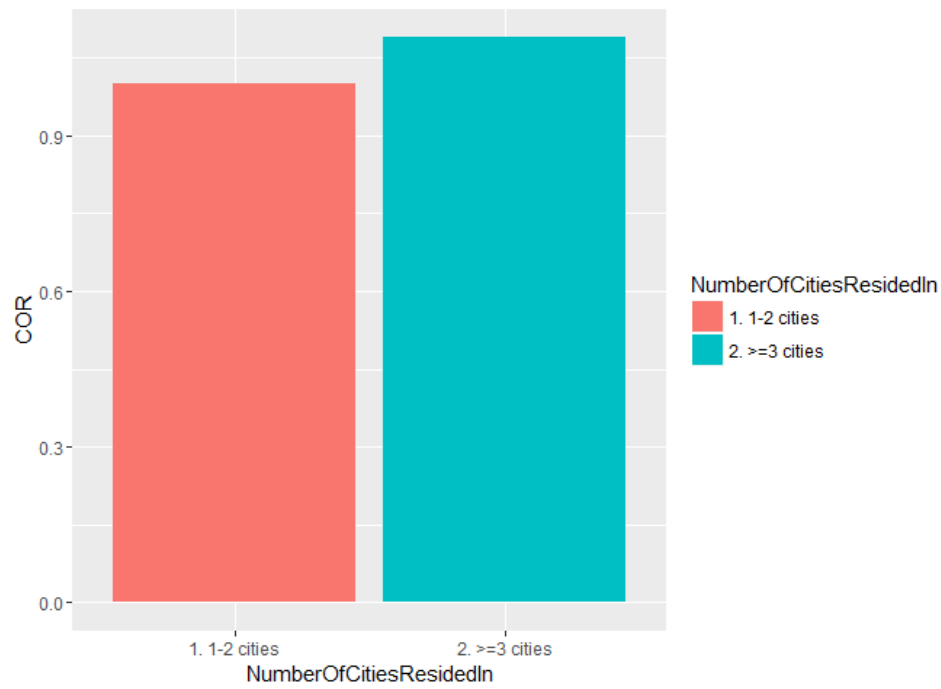
## DAILYWORKINGHOURS28-11	1.0785105	1.0127431	1.1485488
## DAILYWORKINGHOURS2>=11	1.0507422	0.9829170	1.1232476
## WEEKLYWORKINGDAYS25	0.9679142	0.8418567	1.1128473
## WEEKLYWORKINGDAYS26	1.0046257	0.8790917	1.1480859
## WEEKLYWORKINGDAYS27	1.0433837	0.9131537	1.1921865
## RESIDENCE2Rent(with others)	1.0730011	0.9778398	1.1774232
## RESIDENCE2Rent(family)	0.9874437	0.9194093	1.0605125
## RESIDENCE2Rent(alone)	1.1025700	1.0084241	1.2055053
## RESIDENCE2OwnLivingPlace	0.8914418	0.7809681	1.0175428
## BMI2NormalWeight	1.0547857	0.9691929	1.1479374
## BMI2Overweight	1.0335682	0.9356281	1.1417604
## MENTALHEALTH2Abnormal	1.3779398	1.2785766	1.4850249

Female - significant risk factor COR visualization

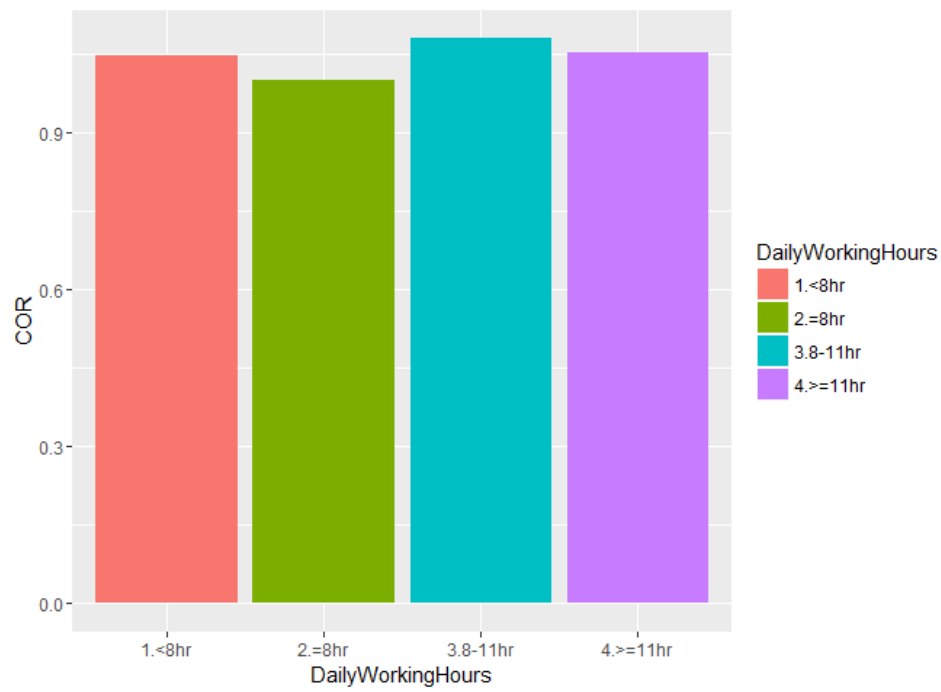




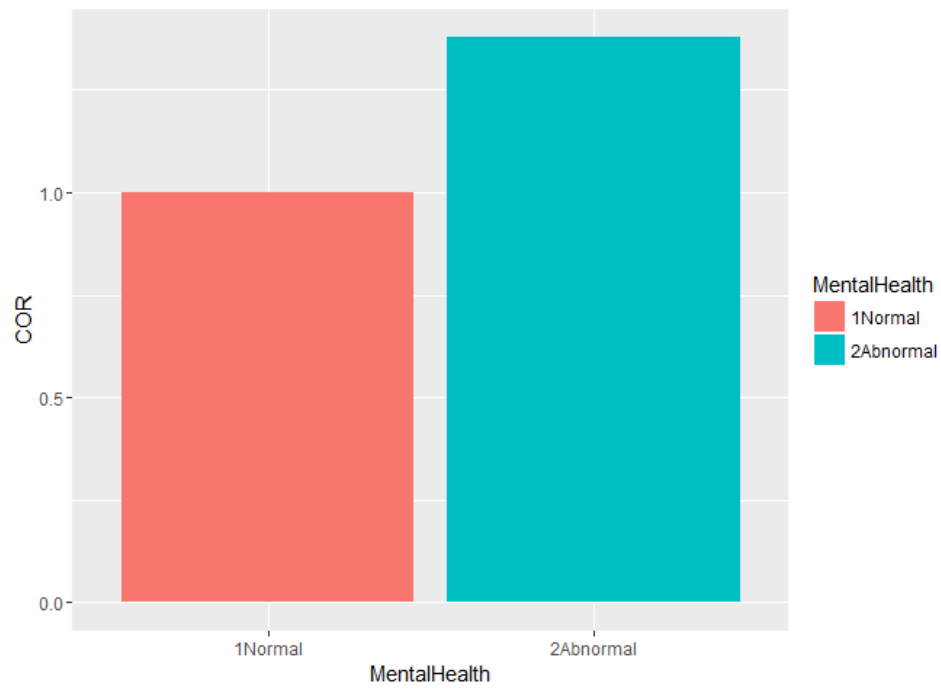
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