Worst Game Of SIMS

In-class exercise

9/30/2020

Contents

Coefficients

Coefficients of the logistic regression model used to impute PTSD outcomes in Kessler et al[1]

```
beta<-c(
-1.515  ,#Intercept
0.0263  ,#Age
0.1105  ,#Sex is female (0 = Male, 1 = Female)
-0.0819 ,#Race is hispanic
-0.5597 ,#Race is black
-0.9751 ,#Race is other
-0.5603 ,#as child, badly beaten by parent/caregiver
0.0504  ,#badly beaten by spouse/romantic partner
-0.3877 ,#badly beaten by anyone else
0.1148  ,#mugged/held up/threatened with weapon
-0.1614 ,#ever raped (penetration occurred)
0.5993  ,#ever sexually assaulted or molested
0.078   ,#someone close died unexpectedly
0.4687  ,#anyone close had extreme traumatic exper.
0.4591  ,#as child, witnessed serious physical fights
0.1683  ,#saw person badly injured/killed/dead body
-0.2237 ,#ever experienced other very traumatic event
0.3664  ,#purposely stay away things remind event
-0.0581 ,#lose interest in things used to enjoy
0.2516  ,#feel emotionally distant/cut-off from people
0.1159  ,#trouble feeling love/happiness toward others
0.64    ,#feel no reason to plan for the future
0.8654  ,#trouble falling asleep during random event
0.1323 ) #more easily startled by ordinary noises
```

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[1]Kessler RC, Duncan GJ, Gennetian LA, et al.: Associations of housing mobility interventions for children in high-poverty neighborhoods with subsequent mental disorders during adolescence. JAMA. 2014; 311(9): 937–948.

Beta	Independent variable
−1.515	Intercept
0.0263	Age
0.1105	Sex is female (0 = Male, 1 = Female)
−0.0819	Race is hispanic
−0.5597	Race is black
−0.9751	Race is other
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0.8654	trouble falling asleep during random event
0.1323	more easily startled by ordinary noises

Figure 1: Kessler Table 1.

Play here

Modify coefficients:

```r
x<-
c(
1     ,#Intercept
18    ,#Age
1     ,#Sex is female (0 = Male, 1 = Female)
0     ,#Race is hispanic
0     ,#Race is black
1     ,#Race is other
0     ,#as child, badly beaten by parent/caregiver
0     ,#badly beaten by spouse/romantic partner
1     ,#badly beaten by anyone else
1     ,#mugged/held up/threatened with weapon
1     ,#ever raped (penetration occurred)
0     ,#ever sexually assaulted or molested
1     ,#someone close died unexpectedly
1     ,#anyone close had extreme traumatic exper.
1     ,#as child, witnessed serious physical fights
0     ,#saw person badly injured/killed/dead body
0     ,#ever experienced other very traumatic event
1     ,#purposely stay away things remind event
0     ,#lose interest in things used to enjoy
0     ,#feel emotionally distant/cut-off from people
0     ,#trouble feeling love/happiness toward others
0     ,#feel no reason to plan for the future
1     ,#trouble falling asleep during random event
0     )#more easily startled by ordinary noises
```

Estimate probability of PTSD

```r
bx<-x%*%beta
Z<-exp(bx)
p<-Z/(1+Z)
```

The probability this SIM has PTSD is: 0.4742977