

Worst Game Of SIMS

In-class exercise

9/25/2019

Contents

Coefficients	1
Play here	3
Modify coefficients:	3
Estimate probability of PTSD	3

Coefficients

Coefficients of the logistic regression model used to impute PTSD outcomes in Kessler et al¹

```
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
```

¹Kessler 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
-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

Figure 1: Kessler Table 1.

Play here

Modify coefficients:

```
x<-  
c(  
1 ,#Intercept  
18 ,#Age  
1 ,#Sex is female (0 = Male, 1 = Female)  
0 ,#Race is hispanic  
0 ,#Race is black  
0 ,#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  
0 ,#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

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

The probability of this SIM have PTSD is: 0.7376132