tmps_02_analysis.R

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Thu Aug 24 15:43:51 2017

```
#
# tmps_02_analysis.R
#
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# July 2017
#
# 1. Get frequencies for each disability variable
# 2. Convert responses to numbers according to WHODAS simple scoring
# 3. Sum the disability scores to get an aggregated score
# 4. Describe the distribution of disability by age, sex, and province
# 5. Show results graphically
#
#
# # Save as R Markdown file:
#
# rm(list = ls())
# dir <- "C:/Users/rsoren/Documents/prog/projects/201706_moz_research/"
#
# library("rmarkdown")
# setwd(paste0(dir, "TMPS/"))
#
# rmarkdown::render(
#   input = "tmps_02_analysis.R",
#   output_format = "pdf_document"
# )
#
# setwd(dir)


library(dplyr)
library(ggplot2)
library(knitr)

knitr::opts_chunk$set(echo = FALSE, message = FALSE)
```
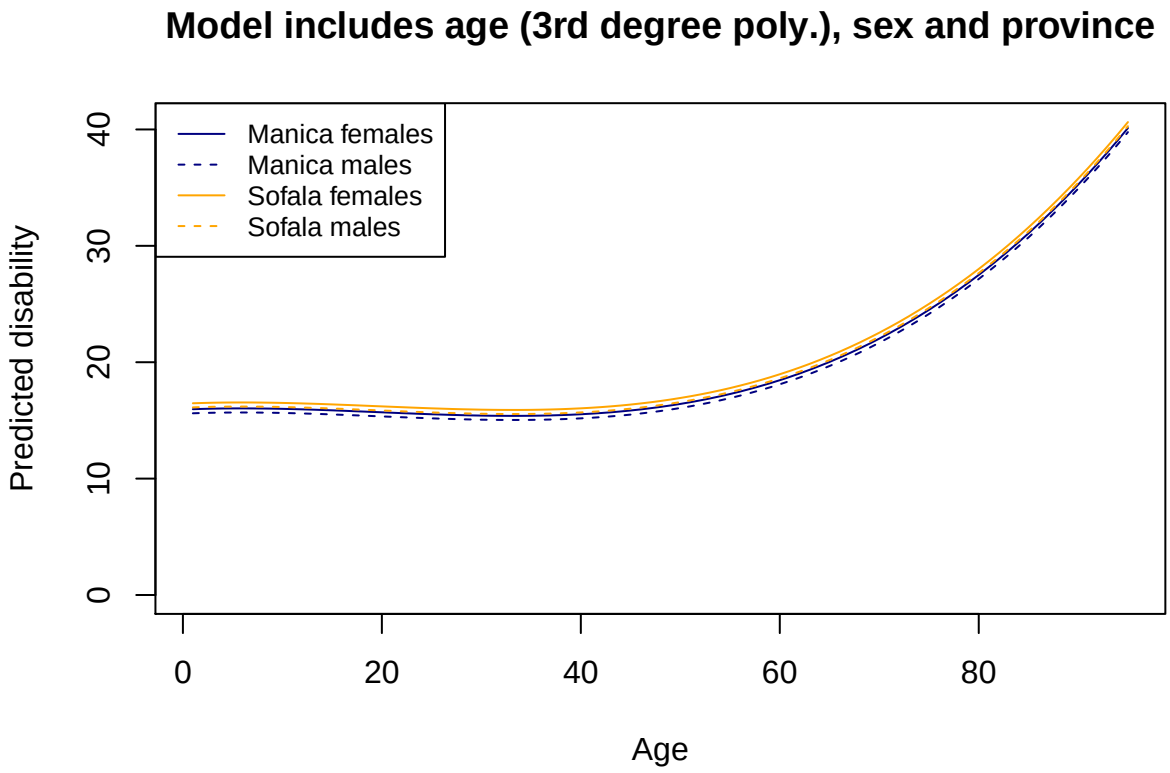
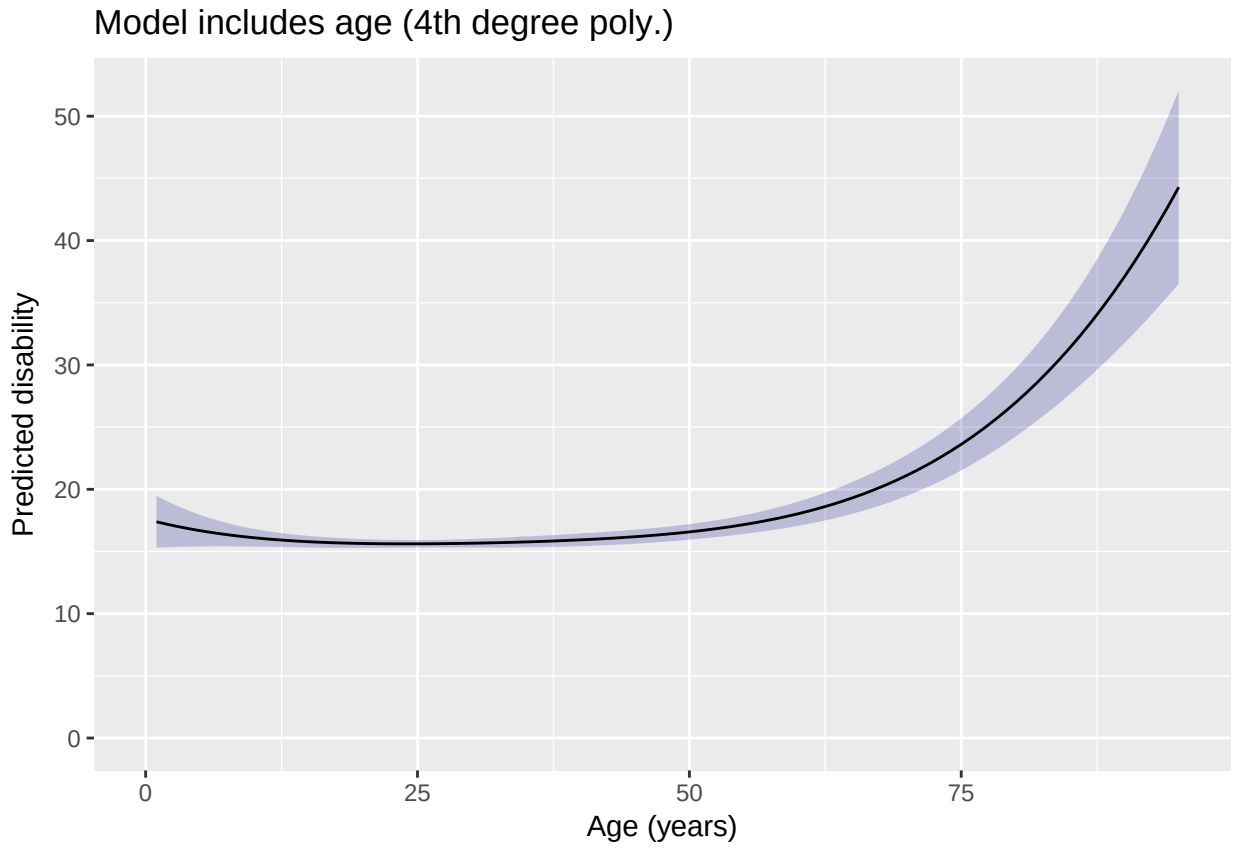

```
##
## Call:
## lm(formula = disabilidade_num ~ poly(anos, 3) + sexo + provincia,
##     data = df2)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -11.614  -2.784  -1.039   1.440  25.134
##
## Coefficients:
##                 Estimate Std. Error t value Pr(>|t|)
## (Intercept)      15.8260     0.1989  79.581  < 2e-16 ***
```

```
## poly(anos, 3)1   19.5787     4.2448   4.612 4.49e-06 ***
## poly(anos, 3)2   27.5280     4.1407   6.648 4.86e-11 ***
## poly(anos, 3)3   13.6058     4.1361   3.290  0.00104 **
## sexoMASCULINO    -0.3517     0.2788  -1.262  0.20732
## provinciaSOFALA   0.5095     0.2645   1.926  0.05432 .
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 4.119 on 1006 degrees of freedom
##   (1 observation deleted due to missingness)
## Multiple R-squared:  0.07385,    Adjusted R-squared:  0.06925
## F-statistic: 16.04 on 5 and 1006 DF,  p-value: 3.087e-15
```




```
##
## Call:
## lm(formula = disabilidade_num ~ poly(anos, 4), data = df2)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -11.0535  -2.6637  -0.7689   1.3840  25.2156
##
## Coefficients:
##                Estimate Std. Error t value Pr(>|t|)
## (Intercept)     15.9316     0.1294 123.097  < 2e-16 ***
## poly(anos, 4)1  19.3201     4.1192   4.690 3.10e-06 ***
## poly(anos, 4)2  26.9680     4.1182   6.548 9.25e-11 ***
```

```
## poly(anos, 4)3  13.4238     4.1172   3.260  0.00115 **
## poly(anos, 4)4   8.6906     4.1182   2.110  0.03508 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 4.117 on 1007 degrees of freedom
##   (1 observation deleted due to missingness)
## Multiple R-squared:  0.0736, Adjusted R-squared:  0.06992
## F-statistic:    20 on 4 and 1007 DF,  p-value: 7.292e-16
```




```
##
## Family: gaussian
## Link function: identity
##
## Formula:
## disabilidade_num ~ s(anos)
##
## Parametric coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept)  15.9318     0.1291   123.4   <2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Approximate significance of smooth terms:
##           edf Ref.df     F  p-value
## s(anos) 8.308   8.84 9.711 3.24e-14 ***
```

```
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## R-sq.(adj) =  0.0746   Deviance explained = 8.22%
## GCV = 17.024  Scale est. = 16.867    n = 1012
```