Manuscript_Analyses.R

Last Updated: 2021-08-16

```
##############################################################################
# Perceived Negative Effects of Adverse Childhood Experiences
# as a Predictor of Depressive and Anxiety Symptoms Among College Students
##############################################################################

getwd()
```

```
## [1] file path blinded for review
```

```
# load necessary packages
library( tidyverse )
```

```
## -- Attaching packages --------------------------------------- tidyverse 1.3.1 --

## v ggplot2 3.3.5     v purrr   0.3.4
## v tibble  3.1.3     v dplyr   1.0.7
## v tidyr   1.1.3     v stringr 1.4.0
## v readr   2.0.1     v forcats 0.5.1

## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```
library( psych )
```

```
##
## Attaching package: 'psych'

## The following objects are masked from 'package:ggplot2':
##
##     %+%, alpha
```

```
library( jtools )

# load data
df1 <- read_csv( "perceptions_fall_spring_cleaned.csv" )
```

```
## Rows: 600 Columns: 98
```

```
## -- Column specification --------------------------------------------------------
## Delimiter: ","
## chr  (4): ID, Race_Other, GAD.clinical, PHQ.clinical
## dbl (94): Duration.M, Age, Sex, Race1, Race2, Race3, Race4, Race5, Race6, Ra...

##
## i Use `spec()` to retrieve the full column specification for this data.
## i Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

```
##############################
# Model 1
# Outcome: GAD-7 total score
##############################

summ( m1.adj <- lm( GAD7.rtot ~ Age + Race.b + m0f1 + factor( ses1 ) +
                      ACE.percep + ACE.count + ACE.percep:ACE.count,
                    data = df1 ) )
```

```
## MODEL INFO:
## Observations: 501 (99 missing obs. deleted)
## Dependent Variable: GAD7.rtot
## Type: OLS linear regression
##
## MODEL FIT:
## F(9,491) = 11.97, p = 0.00
## R² = 0.18
## Adj. R² = 0.16
##
## Standard errors: OLS
## ------------------------------------------------------------
##                              Est.   S.E.   t val.      p
## -------------------------- ------ ------ -------- ------
## (Intercept)                  2.77   3.32     0.83   0.41
## Age                          0.04   0.17     0.22   0.83
## Race.b                       0.29   0.41     0.71   0.48
## m0f1                         0.67   0.48     1.40   0.16
## factor(ses1)2                1.57   0.69     2.26   0.02
## factor(ses1)3                0.97   0.68     1.42   0.16
## factor(ses1)4                0.47   0.91     0.52   0.60
## ACE.percep                   0.43   0.12     3.51   0.00
## ACE.count                    0.30   0.24     1.26   0.21
## ACE.percep:ACE.count         0.01   0.03     0.42   0.68
## ------------------------------------------------------------
```

```
##############################
# Model 2
# Outcome: PHQ-9 total score
##############################

#PHQ-9 total score: adjusted model
summ( m2.adj <- lm( PHQ9.rtot ~ Age + Race.b + m0f1 + factor( ses1 ) +
                      ACE.percep + ACE.count + ACE.percep:ACE.count,
                    data = df1 ) )
```

```
## MODEL INFO:
## Observations: 501 (99 missing obs. deleted)
## Dependent Variable: PHQ9.rtot
## Type: OLS linear regression
##
## MODEL FIT:
## F(9,491) = 10.24, p = 0.00
## R² = 0.16
## Adj. R² = 0.14
##
## Standard errors: OLS
## ------------------------------------------------------------
##                               Est.   S.E.   t val.      p
## -------------------------- ------- ------ -------- ------
## (Intercept)                   1.29   4.14     0.31   0.75
## Age                           0.16   0.21     0.77   0.44
## Race.b                        0.31   0.51     0.60   0.55
## m0f1                          0.64   0.59     1.07   0.28
## factor(ses1)2                 0.89   0.86     1.04   0.30
## factor(ses1)3                 0.10   0.85     0.12   0.91
## factor(ses1)4                 0.21   1.13     0.19   0.85
## ACE.percep                    0.60   0.15     3.94   0.00
## ACE.count                     0.95   0.30     3.16   0.00
## ACE.percep:ACE.count         -0.06   0.04    -1.38   0.17
## ------------------------------------------------------------
```

```
################################
# Sensitivity Analysis:
# Inclusion of COVID covariate
################################

##############################
# Model 3
# Outcome: GAD-7 total score
##############################

summ( m3.adj <- lm( GAD7.rtot ~ Age + Race.b + m0f1 + factor( ses1 ) + COVID5 +
                      ACE.percep + ACE.count + ACE.percep:ACE.count, data = df1 ) )
```

```
## MODEL INFO:
## Observations: 225 (375 missing obs. deleted)
## Dependent Variable: GAD7.rtot
## Type: OLS linear regression
##
## MODEL FIT:
## F(10,214) = 8.61, p = 0.00
## R² = 0.29
## Adj. R² = 0.25
##
## Standard errors: OLS
## ------------------------------------------------------------
##                               Est.   S.E.   t val.      p
## -------------------------- ------- ------ -------- ------
## (Intercept)                   8.78   4.68     1.87   0.06
```

```
## Age                          -0.18   0.22    -0.82   0.41
## Race.b                        0.98   0.59     1.66   0.10
## m0f1                          0.55   0.67     0.82   0.41
## factor(ses1)2                 1.62   1.09     1.48   0.14
## factor(ses1)3                 1.24   1.07     1.17   0.24
## factor(ses1)4                 0.14   1.45     0.10   0.92
## COVID5                       -0.78   0.28    -2.78   0.01
## ACE.percep                    0.30   0.17     1.74   0.08
## ACE.count                     0.13   0.39     0.34   0.74
## ACE.percep:ACE.count          0.06   0.05     1.08   0.28
## ------------------------------------------------------------
```

```
##############################
# Model 4
# Outcome: PHQ-9 total score
##############################

summ( m4.adj <- lm( PHQ9.rtot ~ Age + Race.b + m0f1 + factor( ses1 ) + COVID6 +
                      ACE.percep + ACE.count + ACE.percep:ACE.count, data = df1 ) )
```

```
## MODEL INFO:
## Observations: 225 (375 missing obs. deleted)
## Dependent Variable: PHQ9.rtot
## Type: OLS linear regression
##
## MODEL FIT:
## F(10,214) = 6.81, p = 0.00
## R² = 0.24
## Adj. R² = 0.21
##
## Standard errors: OLS
## ------------------------------------------------------------
##                              Est.   S.E.   t val.      p
## ------------------------- ------- ------ -------- ------
## (Intercept)                  3.04   5.78     0.53   0.60
## Age                          0.22   0.28     0.80   0.43
## Race.b                       0.50   0.74     0.68   0.50
## m0f1                         0.52   0.84     0.62   0.53
## factor(ses1)2                1.53   1.37     1.12   0.26
## factor(ses1)3                0.94   1.33     0.71   0.48
## factor(ses1)4               -0.52   1.80    -0.29   0.77
## COVID6                      -1.47   0.37    -3.98   0.00
## ACE.percep                   0.57   0.22     2.65   0.01
## ACE.count                    0.83   0.48     1.72   0.09
## ACE.percep:ACE.count        -0.05   0.07    -0.74   0.46
## ------------------------------------------------------------
```