Big Five Employment Measures and ADHD

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## Read in and clean data

We recruited 322 participants from an online subject pool (Prolific). We excluded 1 participant that preferred not to self-identify their ADHD status, 2 participants that did not provide an age, and 1 participant who provided very low-effort responses.

## Warning: There was 1 warning in `mutate()`.  
## ℹ In argument: `across(...)`.  
## Caused by warning:  
## ! Unreplaced values treated as NA as `.x` is not compatible.  
## Please specify replacements exhaustively or supply `.default`.

An additional 1 participant was excluded for failing to answer all of the symptom severity itemsThe sample was mostly comprised of women (52.1%) and white participants (80% white, 11% Black, 8% Asian, 8% Latino/a, 1% Native Am., Native AK, Native HI, Pac. Isl., and 0% no response. Note that percentages sum to more than 100 because some participants selected more than one racial identity. The average (SD) age was 36.99 years (12.25).

Cronbach’s for **self-efficacy**: 0.87

Cronbach’s for **orderliness**: 0.91

Cronbach’s for **dutifulness**: 0.75

Cronbach’s for **achievement-striving**: 0.81

Cronbach’s for **self-discipline**: 0.83

Cronbach’s for **cautiousness**: 0.96

Cronbach’s for **work self-efficacy**: 0.82

Cronbach’s for **work orderliness**: 0.83

Cronbach’s for **work dutifulness**: 0.78

Cronbach’s for **work achievement-striving**: 0.81

Cronbach’s for **work self-discipline**: 0.80

Cronbach’s for **work cautiousness**: 0.93

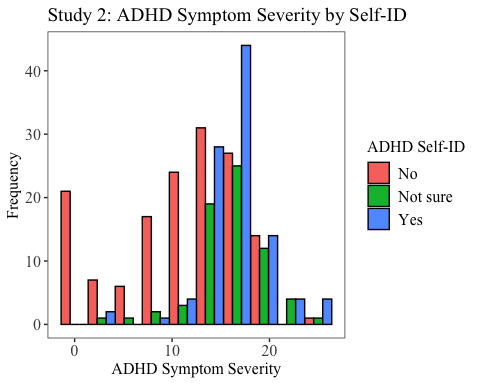
Cronbach’s for **P-J Fit**: 0.96

Cronbach’s for **conscientiousness**: 0.94

Cronbach’s for **work conscientiousness**: 0.93

##   
## Cronbach's $\alpha$ for \*\*ADHD symptoms\*\*: 0.68

## ADHD Data



There was a significant effect of ADHD self-identification on ADHD symptom severity scores, *F*(2, 314) = 40.98, *p* < .001, partial = 0.21. “No” respondents ( *M* = 11.11, *SD* = 6.25) reported fewer symptoms than “Yes” respondents ( *M* = 16.41, *SD* = 3.58), *p* < .001, and “Not sure” respondents ( *M* = 16.00, *SD* = 3.81), *p* < .001.”Yes” respondents did not significantly differ from “Not sure” respondents, *p* = .86

For the purposes of this analysis, we grouped those who reported “Yes” ( *N* = 101) and “Not sure” ( *N* = 68) into one group and those who reported “No” ( *N* = 148) into another group.

## Big five traits

# Get correlations

Look at correlations between ADHD composite and traits and facets:

ADHD symptom severity was negatively correlated with both general self.efficacy, *r*(315) = -.45, *p* < .001 and work self.efficacy, *r*(315) = -.41, *p* < .001.  
ADHD symptom severity was negatively correlated with both general orderliness, *r*(315) = -.47, *p* < .001 and work orderliness, *r*(315) = -.43, *p* < .001.  
ADHD symptom severity was negatively correlated with both general dutifulness, *r*(315) = -.39, *p* < .001 and work dutifulness, *r*(315) = -.35, *p* < .001.  
ADHD symptom severity was negatively correlated with both general achievement.striving, *r*(315) = -.35, *p* < .001 and work achievement.striving, *r*(315) = -.25, *p* < .001.  
ADHD symptom severity was negatively correlated with both general self.discipline, *r*(315) = -.53, *p* < .001 and work self.discipline, *r*(315) = -.49, *p* < .001.  
ADHD symptom severity was negatively correlated with both general cautiousness, *r*(315) = -.42, *p* < .001 and work cautiousness, *r*(315) = -.42, *p* < .001.

## Check for three-way interaction with presentation order

There was no signficant three-way interaction effect between display order, ADHD status, and FOR on global Conscientiousness, F(1, 313) = 0.07, p = .79, partial = 0.000 or any of the facets, self-efficacy: F(1, 313) = 1.24, p = .27, partial = 0.004 , orderliness: F(1, 313) = 0.75, p = .39, partial = 0.002 , dutifulness: F(1, 313) = 0.28, p = .60, partial = 0.001 , achievement-striving: F(1, 313) = 1.05, p = .31, partial = 0.003 , self-discipline: F(1, 313) = 0.15, p = .70, partial = 0.000 , cautiousness: F(1, 313) = 0.43, p = .51, partial = 0.001 , ).

## Mixed ANOVAs

### Run analyses in loop

Format results and save as .xlsx

### SIOP Plots

Look at group means:

| variable | Non-ADHD General | Non-ADHD Work | ADHD General | ADHD Work |
| --- | --- | --- | --- | --- |
| Consc | 4.16 (0.61) | 4.37 (0.53) | 3.61 (0.68) | 3.99 (0.59) |
| Self-Efficacy | 4.32 (0.62) | 4.48 (0.54) | 3.91 (0.71) | 4.23 (0.56) |
| Orderliness | 3.92 (1.05) | 4.28 (0.74) | 3.04 (1.22) | 3.73 (1.00) |
| Dutifulness | 4.36 (0.60) | 4.53 (0.55) | 4.06 (0.67) | 4.32 (0.66) |
| Achievement-Striving | 4.10 (0.77) | 4.21 (0.79) | 3.84 (0.83) | 4.01 (0.79) |
| Self-Discipline | 4.00 (0.84) | 4.20 (0.73) | 3.29 (0.92) | 3.75 (0.84) |
| Cautiousness | 4.30 (0.89) | 4.54 (0.64) | 3.54 (1.21) | 3.88 (1.03) |
| Note. N ADHD = 169, N Non-ADHD = 148. | | | | |

## Exploratory PJ Fit analysis

## Exploratory correlation comparisons

Compare symptom-score correlations across work-specific vs. general forms

##   
## Results of a comparison of two overlapping correlations based on dependent groups  
##   
## Comparison between r.jk (asrs\_sum, consc.gen) = -0.5743 and r.jh (asrs\_sum, consc.work) = -0.5139  
## Difference: r.jk - r.jh = -0.0604  
## Related correlation: r.kh = 0.762  
## Data: tmp: j = asrs\_sum, k = consc.gen, h = consc.work  
## Group size: n = 317  
## Null hypothesis: r.jk is equal to r.jh  
## Alternative hypothesis: r.jk is not equal to r.jh (two-sided)  
## Alpha: 0.05  
##   
## hittner2003: Hittner, May, and Silver's (2003) modification of Dunn and Clark's z (1969) using a backtransformed average Fisher's (1921) Z procedure  
## z = -1.8985, p-value = 0.0576  
## Null hypothesis retained  
##   
## zou2007: Zou's (2007) confidence interval  
## 95% confidence interval for r.jk - r.jh: -0.1244 0.0019  
## Null hypothesis retained (Interval includes 0)

## [1] "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \n"

##   
## Results of a comparison of two overlapping correlations based on dependent groups  
##   
## Comparison between r.jk (asrs\_sum, self.efficacy) = -0.4527 and r.jh (asrs\_sum, work.self.efficacy) = -0.4082  
## Difference: r.jk - r.jh = -0.0445  
## Related correlation: r.kh = 0.669  
## Data: tmp: j = asrs\_sum, k = self.efficacy, h = work.self.efficacy  
## Group size: n = 317  
## Null hypothesis: r.jk is equal to r.jh  
## Alternative hypothesis: r.jk is not equal to r.jh (two-sided)  
## Alpha: 0.05  
##   
## hittner2003: Hittner, May, and Silver's (2003) modification of Dunn and Clark's z (1969) using a backtransformed average Fisher's (1921) Z procedure  
## z = -1.0938, p-value = 0.2741  
## Null hypothesis retained  
##   
## zou2007: Zou's (2007) confidence interval  
## 95% confidence interval for r.jk - r.jh: -0.1246 0.0352  
## Null hypothesis retained (Interval includes 0)

## [1] "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \n"

##   
## Results of a comparison of two overlapping correlations based on dependent groups  
##   
## Comparison between r.jk (asrs\_sum, self.discipline) = -0.5324 and r.jh (asrs\_sum, work.self.discipline) = -0.4937  
## Difference: r.jk - r.jh = -0.0387  
## Related correlation: r.kh = 0.6801  
## Data: tmp: j = asrs\_sum, k = self.discipline, h = work.self.discipline  
## Group size: n = 317  
## Null hypothesis: r.jk is equal to r.jh  
## Alternative hypothesis: r.jk is not equal to r.jh (two-sided)  
## Alpha: 0.05  
##   
## hittner2003: Hittner, May, and Silver's (2003) modification of Dunn and Clark's z (1969) using a backtransformed average Fisher's (1921) Z procedure  
## z = -1.0295, p-value = 0.3033  
## Null hypothesis retained  
##   
## zou2007: Zou's (2007) confidence interval  
## 95% confidence interval for r.jk - r.jh: -0.1133 0.0351  
## Null hypothesis retained (Interval includes 0)

## [1] "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \n"

##   
## Results of a comparison of two overlapping correlations based on dependent groups  
##   
## Comparison between r.jk (asrs\_sum, achievement.striving) = -0.3459 and r.jh (asrs\_sum, work.achievement.striving) = -0.2475  
## Difference: r.jk - r.jh = -0.0984  
## Related correlation: r.kh = 0.6739  
## Data: tmp: j = asrs\_sum, k = achievement.striving, h = work.achievement.striving  
## Group size: n = 317  
## Null hypothesis: r.jk is equal to r.jh  
## Alternative hypothesis: r.jk is not equal to r.jh (two-sided)  
## Alpha: 0.05  
##   
## hittner2003: Hittner, May, and Silver's (2003) modification of Dunn and Clark's z (1969) using a backtransformed average Fisher's (1921) Z procedure  
## z = -2.2807, p-value = 0.0226  
## Null hypothesis rejected  
##   
## zou2007: Zou's (2007) confidence interval  
## 95% confidence interval for r.jk - r.jh: -0.1829 -0.0140  
## Null hypothesis rejected (Interval does not include 0)

## [1] "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \n"

##   
## Results of a comparison of two overlapping correlations based on dependent groups  
##   
## Comparison between r.jk (asrs\_sum, orderliness) = -0.4748 and r.jh (asrs\_sum, work.orderliness) = -0.4266  
## Difference: r.jk - r.jh = -0.0482  
## Related correlation: r.kh = 0.6712  
## Data: tmp: j = asrs\_sum, k = orderliness, h = work.orderliness  
## Group size: n = 317  
## Null hypothesis: r.jk is equal to r.jh  
## Alternative hypothesis: r.jk is not equal to r.jh (two-sided)  
## Alpha: 0.05  
##   
## hittner2003: Hittner, May, and Silver's (2003) modification of Dunn and Clark's z (1969) using a backtransformed average Fisher's (1921) Z procedure  
## z = -1.2061, p-value = 0.2278  
## Null hypothesis retained  
##   
## zou2007: Zou's (2007) confidence interval  
## 95% confidence interval for r.jk - r.jh: -0.1272 0.0301  
## Null hypothesis retained (Interval includes 0)

## [1] "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \n"

##   
## Results of a comparison of two overlapping correlations based on dependent groups  
##   
## Comparison between r.jk (asrs\_sum, dutifulness) = -0.3897 and r.jh (asrs\_sum, work.dutifulness) = -0.3546  
## Difference: r.jk - r.jh = -0.0352  
## Related correlation: r.kh = 0.6491  
## Data: tmp: j = asrs\_sum, k = dutifulness, h = work.dutifulness  
## Group size: n = 317  
## Null hypothesis: r.jk is equal to r.jh  
## Alternative hypothesis: r.jk is not equal to r.jh (two-sided)  
## Alpha: 0.05  
##   
## hittner2003: Hittner, May, and Silver's (2003) modification of Dunn and Clark's z (1969) using a backtransformed average Fisher's (1921) Z procedure  
## z = -0.8133, p-value = 0.4161  
## Null hypothesis retained  
##   
## zou2007: Zou's (2007) confidence interval  
## 95% confidence interval for r.jk - r.jh: -0.1201 0.0496  
## Null hypothesis retained (Interval includes 0)

## [1] "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \n"

##   
## Results of a comparison of two overlapping correlations based on dependent groups  
##   
## Comparison between r.jk (asrs\_sum, cautiousness) = -0.4161 and r.jh (asrs\_sum, work.cautiousness) = -0.4152  
## Difference: r.jk - r.jh = -9e-04  
## Related correlation: r.kh = 0.6841  
## Data: tmp: j = asrs\_sum, k = cautiousness, h = work.cautiousness  
## Group size: n = 317  
## Null hypothesis: r.jk is equal to r.jh  
## Alternative hypothesis: r.jk is not equal to r.jh (two-sided)  
## Alpha: 0.05  
##   
## hittner2003: Hittner, May, and Silver's (2003) modification of Dunn and Clark's z (1969) using a backtransformed average Fisher's (1921) Z procedure  
## z = -0.0223, p-value = 0.9822  
## Null hypothesis retained  
##   
## zou2007: Zou's (2007) confidence interval  
## 95% confidence interval for r.jk - r.jh: -0.0797 0.0779  
## Null hypothesis retained (Interval includes 0)

# CFAs for measurement invariance

## Measurement Invariance: Work FOR

## w.selfeff =~ WC1\_1 + WC1\_2 + WC1\_3 + WC1\_4  
## w.order =~ WC2\_1 + R\_WC2\_2 + R\_WC2\_3 + R\_WC2\_4  
## w.duty =~ WC3\_1 + WC3\_2 + R\_WC3\_3 + R\_WC3\_4  
## w.achieve =~ WC4\_1 + WC4\_2 + R\_WC4\_3 + R\_WC4\_4  
## w.selfdisc =~ WC5\_1 + WC5\_2 + R\_WC5\_3 + R\_WC5\_4  
## w.caution =~ R\_WC6\_1 + R\_WC6\_2 + R\_WC6\_3 + R\_WC6\_4

Configural Invariance:

##   
## WORK CONFIGURAL INVARIANCE

Metric invariance:

##   
## WORK METRIC INVARIANCE

##   
## Chi-Squared Difference Test  
##   
## Df AIC BIC Chisq Chisq diff RMSEA Df diff Pr(>Chisq)   
## config 474 16034 16688 896.87   
## metric 492 16028 16614 926.53 29.654 0.063912 18 0.04095 \*  
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

## ################### Nested Model Comparison #########################  
##   
## Chi-Squared Difference Test  
##   
## Df AIC BIC Chisq Chisq diff RMSEA Df diff Pr(>Chisq)   
## config 474 16034 16688 896.87   
## metric 492 16028 16614 926.53 29.654 0.063912 18 0.04095 \*  
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## ####################### Model Fit Indices ###########################  
## chisq df pvalue rmsea cfi tli srmr aic bic  
## config 896.872† 474 .000 .075 .902† .886 .062† 16034.303 16688.352   
## metric 926.526 492 .000 .075† .899 .887† .069 16027.957† 16614.345†  
##   
## ################## Differences in Fit Indices #######################  
## df rmsea cfi tli srmr aic bic  
## metric - config 18 0 -0.003 0.001 0.007 -6.346 -74.006

## The modification index tests the improvement in model fit if the equality constraints for individual parameters were released. This test suggested that releasing equality constraints on the loadings of one item from the achievement-striving scale ("Work hard") would improve model fit.

## Warning in write.table(sep = ",", append = TRUE, file =  
## "output/metric.config.comp.csv", : appending column names to file

## Warning in write.table(sep = ",", append = TRUE, file =  
## "output/metric.config.comp.csv", : appending column names to file

## ################### Nested Model Comparison #########################  
##   
## Chi-Squared Difference Test  
##   
## Df AIC BIC Chisq Chisq diff RMSEA Df diff Pr(>Chisq)   
## config 474 16034 16688 896.87   
## metric 492 16028 16614 926.53 29.654 0.063912 18 0.04095 \*  
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## ####################### Model Fit Indices ###########################  
## chisq df pvalue rmsea cfi tli srmr aic bic  
## config 896.872† 474 .000 .075 .902† .886 .062† 16034.303 16688.352   
## metric 926.526 492 .000 .075† .899 .887† .069 16027.957† 16614.345†  
##   
## ################## Differences in Fit Indices #######################  
## df rmsea cfi tli srmr aic bic  
## metric - config 18 0 -0.003 0.001 0.007 -6.346 -74.006

Partial Metric invariance:

## lavaan 0.6.15 ended normally after 159 iterations  
##   
## Estimator ML  
## Optimization method NLMINB  
## Number of model parameters 174  
## Number of equality constraints 17  
##   
## Number of observations per group:   
## Non-ADHD 148  
## ADHD 169  
## Number of missing patterns per group:   
## Non-ADHD 9  
## ADHD 8  
##   
## Model Test User Model:  
##   
## Test statistic 919.537  
## Degrees of freedom 491  
## P-value (Chi-square) 0.000  
## Test statistic for each group:  
## Non-ADHD 435.771  
## ADHD 483.765  
##   
## Model Test Baseline Model:  
##   
## Test statistic 4872.627  
## Degrees of freedom 552  
## P-value 0.000  
##   
## User Model versus Baseline Model:  
##   
## Comparative Fit Index (CFI) 0.901  
## Tucker-Lewis Index (TLI) 0.888  
##   
## Robust Comparative Fit Index (CFI) 0.901  
## Robust Tucker-Lewis Index (TLI) 0.889  
##   
## Loglikelihood and Information Criteria:  
##   
## Loglikelihood user model (H0) -7854.484  
## Loglikelihood unrestricted model (H1) -7394.715  
##   
## Akaike (AIC) 16022.967  
## Bayesian (BIC) 16613.115  
## Sample-size adjusted Bayesian (SABIC) 16115.148  
##   
## Root Mean Square Error of Approximation:  
##   
## RMSEA 0.074  
## 90 Percent confidence interval - lower 0.067  
## 90 Percent confidence interval - upper 0.082  
## P-value H\_0: RMSEA <= 0.050 0.000  
## P-value H\_0: RMSEA >= 0.080 0.099  
##   
## Robust RMSEA 0.074  
## 90 Percent confidence interval - lower 0.067  
## 90 Percent confidence interval - upper 0.082  
## P-value H\_0: Robust RMSEA <= 0.050 0.000  
## P-value H\_0: Robust RMSEA >= 0.080 0.104  
##   
## Standardized Root Mean Square Residual:  
##   
## SRMR 0.068  
##   
## Parameter Estimates:  
##   
## Standard errors Standard  
## Information Observed  
## Observed information based on Hessian  
##   
##   
## Group 1 [Non-ADHD]:  
##   
## Latent Variables:  
## Estimate Std.Err z-value P(>|z|)  
## w.selfeff =~   
## WC1\_1 1.000   
## WC1\_2 (.p2.) 1.265 0.100 12.666 0.000  
## WC1\_3 (.p3.) 1.158 0.088 13.190 0.000  
## WC1\_4 (.p4.) 1.271 0.096 13.201 0.000  
## w.order =~   
## WC2\_1 1.000   
## R\_WC2\_2 (.p6.) 1.114 0.119 9.398 0.000  
## R\_WC2\_3 (.p7.) 1.296 0.113 11.457 0.000  
## R\_WC2\_4 (.p8.) 1.254 0.113 11.097 0.000  
## w.duty =~   
## WC3\_1 1.000   
## WC3\_2 (.10.) 1.029 0.094 10.951 0.000  
## R\_WC3\_3 (.11.) 1.180 0.141 8.392 0.000  
## R\_WC3\_4 (.12.) 1.117 0.119 9.424 0.000  
## w.achieve =~   
## WC4\_1 1.000   
## WC4\_2 0.994 0.086 11.517 0.000  
## R\_WC4\_3 (.15.) 0.787 0.084 9.385 0.000  
## R\_WC4\_4 (.16.) 1.172 0.092 12.699 0.000  
## w.selfdisc =~   
## WC5\_1 1.000   
## WC5\_2 (.18.) 0.898 0.078 11.464 0.000  
## R\_WC5\_3 (.19.) 1.325 0.117 11.357 0.000  
## R\_WC5\_4 (.20.) 1.488 0.137 10.825 0.000  
## w.caution =~   
## R\_WC6\_1 1.000   
## R\_WC6\_2 (.22.) 1.011 0.063 15.993 0.000  
## R\_WC6\_3 (.23.) 1.059 0.065 16.343 0.000  
## R\_WC6\_4 (.24.) 1.137 0.067 16.892 0.000  
##   
## Covariances:  
## Estimate Std.Err z-value P(>|z|)  
## w.selfeff ~~   
## w.order 0.139 0.028 4.914 0.000  
## w.duty 0.143 0.026 5.527 0.000  
## w.achieve 0.254 0.041 6.206 0.000  
## w.selfdisc 0.194 0.033 5.956 0.000  
## w.caution 0.107 0.025 4.210 0.000  
## w.order ~~   
## w.duty 0.163 0.033 5.002 0.000  
## w.achieve 0.238 0.048 4.908 0.000  
## w.selfdisc 0.233 0.043 5.484 0.000  
## w.caution 0.165 0.036 4.646 0.000  
## w.duty ~~   
## w.achieve 0.245 0.044 5.553 0.000  
## w.selfdisc 0.209 0.036 5.728 0.000  
## w.caution 0.173 0.032 5.412 0.000  
## w.achieve ~~   
## w.selfdisc 0.346 0.057 6.063 0.000  
## w.caution 0.225 0.045 4.952 0.000  
## w.selfdisc ~~   
## w.caution 0.182 0.037 4.929 0.000  
##   
## Intercepts:  
## Estimate Std.Err z-value P(>|z|)  
## .WC1\_1 4.601 0.045 102.051 0.000  
## .WC1\_2 4.385 0.056 77.755 0.000  
## .WC1\_3 4.426 0.049 89.513 0.000  
## .WC1\_4 4.514 0.054 84.186 0.000  
## .WC2\_1 3.908 0.083 47.187 0.000  
## .R\_WC2\_2 4.257 0.087 48.794 0.000  
## .R\_WC2\_3 4.488 0.068 66.200 0.000  
## .R\_WC2\_4 4.463 0.069 64.479 0.000  
## .WC3\_1 4.541 0.055 81.845 0.000  
## .WC3\_2 4.608 0.051 90.193 0.000  
## .R\_WC3\_3 4.385 0.072 60.792 0.000  
## .R\_WC3\_4 4.595 0.060 76.873 0.000  
## .WC4\_1 3.885 0.084 46.179 0.000  
## .WC4\_2 4.447 0.065 68.177 0.000  
## .R\_WC4\_3 4.311 0.087 49.681 0.000  
## .R\_WC4\_4 4.215 0.083 50.944 0.000  
## .WC5\_1 4.162 0.072 58.058 0.000  
## .WC5\_2 4.291 0.057 75.045 0.000  
## .R\_WC5\_3 4.270 0.079 54.011 0.000  
## .R\_WC5\_4 4.101 0.093 44.195 0.000  
## .R\_WC6\_1 4.419 0.068 64.611 0.000  
## .R\_WC6\_2 4.595 0.055 82.893 0.000  
## .R\_WC6\_3 4.537 0.056 80.631 0.000  
## .R\_WC6\_4 4.595 0.058 79.606 0.000  
## w.selfeff 0.000   
## w.order 0.000   
## w.duty 0.000   
## w.achieve 0.000   
## w.selfdisc 0.000   
## w.caution 0.000   
##   
## Variances:  
## Estimate Std.Err z-value P(>|z|)  
## .WC1\_1 0.111 0.016 7.097 0.000  
## .WC1\_2 0.167 0.024 6.894 0.000  
## .WC1\_3 0.107 0.017 6.432 0.000  
## .WC1\_4 0.118 0.019 6.214 0.000  
## .WC2\_1 0.705 0.087 8.073 0.000  
## .R\_WC2\_2 0.749 0.094 7.972 0.000  
## .R\_WC2\_3 0.167 0.036 4.652 0.000  
## .R\_WC2\_4 0.229 0.038 6.003 0.000  
## .WC3\_1 0.258 0.035 7.410 0.000  
## .WC3\_2 0.177 0.026 6.722 0.000  
## .R\_WC3\_3 0.495 0.064 7.693 0.000  
## .R\_WC3\_4 0.282 0.039 7.203 0.000  
## .WC4\_1 0.540 0.069 7.824 0.000  
## .WC4\_2 0.127 0.025 5.063 0.000  
## .R\_WC4\_3 0.800 0.097 8.221 0.000  
## .R\_WC4\_4 0.313 0.048 6.459 0.000  
## .WC5\_1 0.455 0.057 7.922 0.000  
## .WC5\_2 0.234 0.031 7.521 0.000  
## .R\_WC5\_3 0.388 0.057 6.818 0.000  
## .R\_WC5\_4 0.598 0.084 7.118 0.000  
## .R\_WC6\_1 0.363 0.045 8.035 0.000  
## .R\_WC6\_2 0.119 0.017 6.808 0.000  
## .R\_WC6\_3 0.099 0.016 6.115 0.000  
## .R\_WC6\_4 0.068 0.015 4.586 0.000  
## w.selfeff 0.190 0.031 6.116 0.000  
## w.order 0.304 0.062 4.904 0.000  
## w.duty 0.197 0.040 4.956 0.000  
## w.achieve 0.508 0.094 5.391 0.000  
## w.selfdisc 0.306 0.058 5.256 0.000  
## w.caution 0.329 0.054 6.133 0.000  
##   
##   
## Group 2 [ADHD]:  
##   
## Latent Variables:  
## Estimate Std.Err z-value P(>|z|)  
## w.selfeff =~   
## WC1\_1 1.000   
## WC1\_2 (.p2.) 1.265 0.100 12.666 0.000  
## WC1\_3 (.p3.) 1.158 0.088 13.190 0.000  
## WC1\_4 (.p4.) 1.271 0.096 13.201 0.000  
## w.order =~   
## WC2\_1 1.000   
## R\_WC2\_2 (.p6.) 1.114 0.119 9.398 0.000  
## R\_WC2\_3 (.p7.) 1.296 0.113 11.457 0.000  
## R\_WC2\_4 (.p8.) 1.254 0.113 11.097 0.000  
## w.duty =~   
## WC3\_1 1.000   
## WC3\_2 (.10.) 1.029 0.094 10.951 0.000  
## R\_WC3\_3 (.11.) 1.180 0.141 8.392 0.000  
## R\_WC3\_4 (.12.) 1.117 0.119 9.424 0.000  
## w.achieve =~   
## WC4\_1 1.000   
## WC4\_2 0.720 0.082 8.776 0.000  
## R\_WC4\_3 (.15.) 0.787 0.084 9.385 0.000  
## R\_WC4\_4 (.16.) 1.172 0.092 12.699 0.000  
## w.selfdisc =~   
## WC5\_1 1.000   
## WC5\_2 (.18.) 0.898 0.078 11.464 0.000  
## R\_WC5\_3 (.19.) 1.325 0.117 11.357 0.000  
## R\_WC5\_4 (.20.) 1.488 0.137 10.825 0.000  
## w.caution =~   
## R\_WC6\_1 1.000   
## R\_WC6\_2 (.22.) 1.011 0.063 15.993 0.000  
## R\_WC6\_3 (.23.) 1.059 0.065 16.343 0.000  
## R\_WC6\_4 (.24.) 1.137 0.067 16.892 0.000  
##   
## Covariances:  
## Estimate Std.Err z-value P(>|z|)  
## w.selfeff ~~   
## w.order 0.159 0.036 4.439 0.000  
## w.duty 0.107 0.025 4.219 0.000  
## w.achieve 0.211 0.038 5.596 0.000  
## w.selfdisc 0.220 0.035 6.252 0.000  
## w.caution 0.166 0.038 4.323 0.000  
## w.order ~~   
## w.duty 0.125 0.042 2.998 0.003  
## w.achieve 0.174 0.060 2.886 0.004  
## w.selfdisc 0.305 0.060 5.089 0.000  
## w.caution 0.368 0.076 4.826 0.000  
## w.duty ~~   
## w.achieve 0.217 0.048 4.495 0.000  
## w.selfdisc 0.200 0.041 4.872 0.000  
## w.caution 0.259 0.053 4.936 0.000  
## w.achieve ~~   
## w.selfdisc 0.332 0.060 5.547 0.000  
## w.caution 0.285 0.071 4.025 0.000  
## w.selfdisc ~~   
## w.caution 0.354 0.066 5.351 0.000  
##   
## Intercepts:  
## Estimate Std.Err z-value P(>|z|)  
## .WC1\_1 4.361 0.046 94.103 0.000  
## .WC1\_2 4.166 0.059 71.116 0.000  
## .WC1\_3 4.047 0.067 60.750 0.000  
## .WC1\_4 4.338 0.052 82.821 0.000  
## .WC2\_1 3.678 0.089 41.500 0.000  
## .R\_WC2\_2 3.454 0.102 34.009 0.000  
## .R\_WC2\_3 3.899 0.093 41.739 0.000  
## .R\_WC2\_4 3.876 0.093 41.770 0.000  
## .WC3\_1 4.337 0.057 75.940 0.000  
## .WC3\_2 4.408 0.062 71.393 0.000  
## .R\_WC3\_3 4.178 0.072 57.679 0.000  
## .R\_WC3\_4 4.349 0.064 68.217 0.000  
## .WC4\_1 3.716 0.086 43.375 0.000  
## .WC4\_2 4.272 0.061 70.501 0.000  
## .R\_WC4\_3 4.241 0.072 59.176 0.000  
## .R\_WC4\_4 3.834 0.086 44.412 0.000  
## .WC5\_1 3.817 0.071 53.564 0.000  
## .WC5\_2 4.084 0.059 68.732 0.000  
## .R\_WC5\_3 3.846 0.086 44.931 0.000  
## .R\_WC5\_4 3.231 0.104 30.947 0.000  
## .R\_WC6\_1 3.639 0.094 38.719 0.000  
## .R\_WC6\_2 4.059 0.082 49.501 0.000  
## .R\_WC6\_3 3.870 0.085 45.324 0.000  
## .R\_WC6\_4 3.967 0.089 44.696 0.000  
## w.selfeff 0.000   
## w.order 0.000   
## w.duty 0.000   
## w.achieve 0.000   
## w.selfdisc 0.000   
## w.caution 0.000   
##   
## Variances:  
## Estimate Std.Err z-value P(>|z|)  
## .WC1\_1 0.205 0.027 7.467 0.000  
## .WC1\_2 0.327 0.042 7.750 0.000  
## .WC1\_3 0.538 0.064 8.413 0.000  
## .WC1\_4 0.207 0.029 7.117 0.000  
## .WC2\_1 0.706 0.089 7.920 0.000  
## .R\_WC2\_2 0.958 0.118 8.089 0.000  
## .R\_WC2\_3 0.438 0.073 5.964 0.000  
## .R\_WC2\_4 0.485 0.079 6.171 0.000  
## .WC3\_1 0.268 0.041 6.508 0.000  
## .WC3\_2 0.344 0.047 7.264 0.000  
## .R\_WC3\_3 0.492 0.073 6.752 0.000  
## .R\_WC3\_4 0.334 0.051 6.502 0.000  
## .WC4\_1 0.640 0.085 7.539 0.000  
## .WC4\_2 0.305 0.043 7.056 0.000  
## .R\_WC4\_3 0.493 0.063 7.873 0.000  
## .R\_WC4\_4 0.435 0.075 5.808 0.000  
## .WC5\_1 0.439 0.056 7.795 0.000  
## .WC5\_2 0.257 0.035 7.246 0.000  
## .R\_WC5\_3 0.503 0.068 7.363 0.000  
## .R\_WC5\_4 0.914 0.116 7.882 0.000  
## .R\_WC6\_1 0.607 0.073 8.352 0.000  
## .R\_WC6\_2 0.232 0.034 6.892 0.000  
## .R\_WC6\_3 0.239 0.036 6.624 0.000  
## .R\_WC6\_4 0.183 0.033 5.591 0.000  
## w.selfeff 0.158 0.029 5.486 0.000  
## w.order 0.617 0.116 5.339 0.000  
## w.duty 0.283 0.052 5.469 0.000  
## w.achieve 0.600 0.108 5.556 0.000  
## w.selfdisc 0.419 0.076 5.518 0.000  
## w.caution 0.886 0.136 6.513 0.000

##   
## Chi-Squared Difference Test  
##   
## Df AIC BIC Chisq Chisq diff RMSEA Df diff Pr(>Chisq)  
## config 474 16034 16688 896.87   
## partial.metric 491 16023 16613 919.54 22.664 0.04585 17 0.1605

## Warning in write.table(append = TRUE, sep = ",", file =  
## "output/partial.metric.config.comp.csv", : appending column names to file

## Warning in write.table(append = TRUE, sep = ",", file =  
## "output/partial.metric.config.comp.csv", : appending column names to file

## ################### Nested Model Comparison #########################  
##   
## Chi-Squared Difference Test  
##   
## Df AIC BIC Chisq Chisq diff RMSEA Df diff Pr(>Chisq)  
## config 474 16034 16688 896.87   
## partial.metric 491 16023 16613 919.54 22.664 0.04585 17 0.1605  
##   
## ####################### Model Fit Indices ###########################  
## chisq df pvalue rmsea cfi tli srmr aic  
## config 896.872† 474 .000 .075 .902† .886 .062† 16034.303   
## partial.metric 919.537 491 .000 .074† .901 .888† .068 16022.967†  
## bic  
## config 16688.352   
## partial.metric 16613.115†  
##   
## ################## Differences in Fit Indices #######################  
## df rmsea cfi tli srmr aic bic  
## partial.metric - config 17 -0.001 -0.001 0.002 0.006 -11.336 -75.237

Scalar invariance:

##   
## SCALAR INVARIANCE

##   
## Chi-Squared Difference Test  
##   
## Df AIC BIC Chisq Chisq diff RMSEA Df diff Pr(>Chisq)   
## partial.metric 491 16023 16613 919.54   
## scalar 509 16036 16558 968.16 48.619 0.1036 18 0.0001218 \*\*\*  
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

## Warning in write.table(append = TRUE, sep = ",", file =  
## "output/scalar.metric.comp.csv", : appending column names to file

## Warning in write.table(append = TRUE, sep = ",", file =  
## "output/scalar.metric.comp.csv", : appending column names to file

## ################### Nested Model Comparison #########################  
##   
## Chi-Squared Difference Test  
##   
## Df AIC BIC Chisq Chisq diff RMSEA Df diff Pr(>Chisq)   
## partial.metric 491 16023 16613 919.54   
## scalar 509 16036 16558 968.16 48.619 0.1036 18 0.0001218 \*\*\*  
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## ####################### Model Fit Indices ###########################  
## chisq df pvalue rmsea cfi tli srmr aic  
## partial.metric 919.537† 491 .000 .074† .901† .888† .068† 16022.967†  
## scalar 968.155 509 .000 .075 .894 .885 .072 16035.586   
## bic  
## partial.metric 16613.115   
## scalar 16558.073†  
##   
## ################## Differences in Fit Indices #######################  
## df rmsea cfi tli srmr aic bic  
## scalar - partial.metric 18 0.001 -0.007 -0.004 0.004 12.619 -55.041

Inspect the items that are likely sources of non-invariance:

## The modification index tests the improvement in model fit if the equality constraints for individual parameters were released. This test suggested that releasing equality constraints on the intercepts of two items from the self-efficacy scale ("Handle work tasks smoothly" and "Know how to get things done at work"), two items from the orderliness scale ("Like to tidy up at work" and "Often forget to put things back in their proper place at work"), two items from the self-discipline scale ("Carry out my plans at work" and "Have difficulty starting work tasks"), and one item from the cautiousness scale ("Jump into things without thinking in my job") would improve model fit.

## Warning in write.table(append = TRUE, sep = ",", file =  
## "output/partial.scalar.comp.csv", : appending column names to file

## Warning in write.table(append = TRUE, sep = ",", file =  
## "output/partial.scalar.comp.csv", : appending column names to file

## ################### Nested Model Comparison #########################  
##   
## Chi-Squared Difference Test  
##   
## Df AIC BIC Chisq Chisq diff RMSEA Df diff Pr(>Chisq)  
## partial.metric 491 16023 16613 919.54   
## partial.scalar 502 16009 16558 927.81 8.2714 0 11 0.6888  
##   
## ####################### Model Fit Indices ###########################  
## chisq df pvalue rmsea cfi tli srmr aic  
## partial.metric 919.537† 491 .000 .074 .901 .888 .068† 16022.967   
## partial.scalar 927.808 502 .000 .073† .901† .892† .069 16009.238†  
## bic  
## partial.metric 16613.115   
## partial.scalar 16558.038†  
##   
## ################## Differences in Fit Indices #######################  
## df rmsea cfi tli srmr aic bic  
## partial.scalar - partial.metric 11 -0.001 0.001 0.003 0 -13.729 -55.077