Analyses\_VisPrj2

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# Regressions

df <- read.csv ("AIAscored\_dx.csv", head = TRUE, sep = ",")

## Simple Regressions

Block\_1 <- lm(Resilience ~ Stress, data = df)  
Block\_2 <- lm(Stress ~ Sleep, data = df)  
Block\_3 <- lm(Resilience ~ Sleep, data = df)  
summary(Block\_1)

##   
## Call:  
## lm(formula = Resilience ~ Stress, data = df)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -2.27035 -0.48574 0.05202 0.52308 2.64768   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)   
## (Intercept) 5.06377 0.11060 45.79 <2e-16 \*\*\*  
## Stress -0.66119 0.03816 -17.33 <2e-16 \*\*\*  
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.7235 on 487 degrees of freedom  
## Multiple R-squared: 0.3814, Adjusted R-squared: 0.3801   
## F-statistic: 300.2 on 1 and 487 DF, p-value: < 2.2e-16

summary(Block\_2)

##   
## Call:  
## lm(formula = Stress ~ Sleep, data = df)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -2.11068 -0.57649 0.01199 0.53466 2.21199   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)   
## (Intercept) 2.76881 0.03530 78.43 <2e-16 \*\*\*  
## Sleep -0.38413 0.03788 -10.14 <2e-16 \*\*\*  
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.7807 on 487 degrees of freedom  
## Multiple R-squared: 0.1743, Adjusted R-squared: 0.1726   
## F-statistic: 102.8 on 1 and 487 DF, p-value: < 2.2e-16

summary(Block\_3)

##   
## Call:  
## lm(formula = Resilience ~ Sleep, data = df)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -2.35699 -0.66075 0.08706 0.62634 2.20089   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)   
## (Intercept) 3.23302 0.03925 82.369 < 2e-16 \*\*\*  
## Sleep 0.32625 0.04212 7.746 5.56e-14 \*\*\*  
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.868 on 487 degrees of freedom  
## Multiple R-squared: 0.1097, Adjusted R-squared: 0.1079   
## F-statistic: 60 on 1 and 487 DF, p-value: 5.559e-14

## Multiple Regresson

Block\_4 <- lm(Resilience ~ Stress + Sleep + Age + CopeTime + CopeGrowth, data = df)  
summary(Block\_4)

##   
## Call:  
## lm(formula = Resilience ~ Stress + Sleep + Age + CopeTime + CopeGrowth,   
## data = df)  
##   
## Residuals:  
## Min 1Q Median 3Q Max   
## -2.17310 -0.47154 0.03897 0.50434 2.25655   
##   
## Coefficients:  
## Estimate Std. Error t value Pr(>|t|)   
## (Intercept) 3.743226 0.221812 16.876 < 2e-16 \*\*\*  
## Stress -0.567423 0.041336 -13.727 < 2e-16 \*\*\*  
## Sleep 0.071819 0.037120 1.935 0.0536 .   
## Age 0.006708 0.002597 2.583 0.0101 \*   
## CopeTime 0.040472 0.060183 0.672 0.5016   
## CopeGrowth 0.215751 0.049932 4.321 1.89e-05 \*\*\*  
## ---  
## Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
##   
## Residual standard error: 0.6884 on 479 degrees of freedom  
## (4 observations deleted due to missingness)  
## Multiple R-squared: 0.4419, Adjusted R-squared: 0.4361   
## F-statistic: 75.86 on 5 and 479 DF, p-value: < 2.2e-16