4\_descriptives

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library(tidyverse)

## Warning: package 'tidyverse' was built under R version 4.0.5

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

## v ggplot2 3.3.5 v purrr 0.3.4  
## v tibble 3.1.5 v dplyr 1.0.7  
## v tidyr 1.1.4 v stringr 1.4.0  
## v readr 1.4.0 v forcats 0.5.1

## Warning: package 'ggplot2' was built under R version 4.0.5

## Warning: package 'tibble' was built under R version 4.0.5

## Warning: package 'tidyr' was built under R version 4.0.5

## Warning: package 'dplyr' was built under R version 4.0.5

## Warning: package 'forcats' was built under R version 4.0.5

## -- 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(here)

## Warning: package 'here' was built under R version 4.0.5

## here() starts at C:/repositories/attention\_pilot

library(flextable)

## Warning: package 'flextable' was built under R version 4.0.5

##   
## Attaching package: 'flextable'

## The following object is masked from 'package:purrr':  
##   
## compose

library(gt)

## Warning: package 'gt' was built under R version 4.0.5

require(esyr)

## Loading required package: esyr

self\_report\_clean <- read\_csv(here("data", "1\_pilot", "self\_report\_clean.csv"))

##   
## -- Column specification --------------------------------------------------------  
## cols(  
## .default = col\_double(),  
## meta\_start = col\_datetime(format = ""),  
## meta\_end = col\_datetime(format = ""),  
## meta\_recorded = col\_datetime(format = ""),  
## meta\_browser = col\_character(),  
## meta\_version = col\_character(),  
## `meta\_operating system` = col\_character(),  
## meta\_resolution = col\_character(),  
## meta\_feedback = col\_character(),  
## dems\_ethnicity = col\_character(),  
## dems\_gender\_4\_text = col\_character(),  
## dems\_occupation = col\_character(),  
## responseid = col\_character(),  
## prolific\_pid = col\_logical(),  
## study\_id = col\_logical(),  
## session\_id = col\_logical(),  
## ex\_narb\_attention\_checks\_pass = col\_logical(),  
## ex\_narb\_NA\_selfreport\_pass = col\_logical(),  
## ex\_narb\_suspect\_responses\_pass = col\_logical(),  
## ex\_arb\_suspect\_responses = col\_logical()  
## )  
## i Use `spec()` for the full column specifications.

codebook <- read\_csv(here("data", "1\_pilot", "pilot\_self\_report\_codebook.csv"))

##   
## -- Column specification --------------------------------------------------------  
## cols(  
## Variable = col\_character(),  
## Label = col\_character(),  
## Values = col\_logical()  
## )

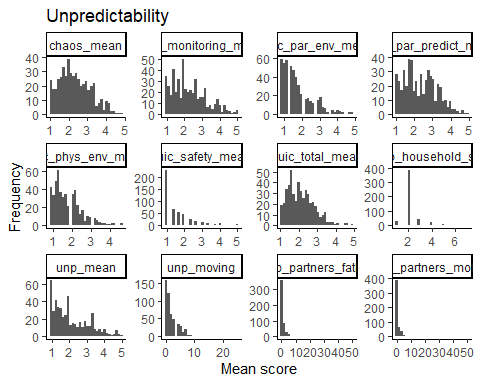
# Self-report

## Distributions

create\_plot <- function(data, variables, label) {  
   
 data %>%  
 pivot\_longer(all\_of(variables), names\_to = "Scale", values\_to = "value") %>%  
 ggplot() +  
 geom\_histogram(aes(value)) +  
 facet\_wrap(~Scale, scales = "free") +  
 theme\_classic() +  
 labs(  
 x = "Mean score",  
 y = "Frequency",  
 title = label  
 )  
   
}  
  
create\_plot(data = self\_report\_clean, variables = c("chaos\_mean", "quic\_monitoring\_mean", "quic\_par\_predict\_mean", "quic\_par\_env\_mean", "quic\_phys\_env\_mean", "quic\_safety\_mean", "quic\_total\_mean", "unp\_mean", "unp\_moving", "unp\_partners\_mother", "unp\_partners\_father", "unp\_household\_size"), label = "Unpredictability")

## `stat\_bin()` using `bins = 30`. Pick better value with `binwidth`.

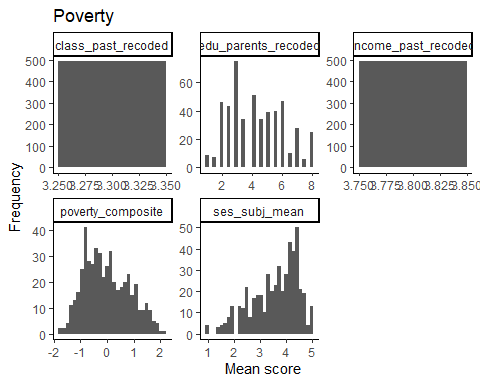
## Warning: Removed 5 rows containing non-finite values (stat\_bin).



create\_plot(data = self\_report\_clean, variables = c("ses\_subj\_mean", "edu\_parents\_recoded", "income\_past\_recoded", "class\_past\_recoded", "poverty\_composite"), label = "Poverty")

## `stat\_bin()` using `bins = 30`. Pick better value with `binwidth`.

## Warning: Removed 1 rows containing non-finite values (stat\_bin).



## Reliabilities

alphas <- tibble(  
 stai\_s\_mean = alpha(self\_report\_clean %>% select(matches("stai\_s\\d\\d")), check.keys = TRUE)$total$raw\_alpha %>% round(2),  
 quic\_total\_mean = alpha(self\_report\_clean %>% select(matches("quic\\d\\d")), check.keys = TRUE)$total$raw\_alpha %>% round(2),  
 quic\_monitoring\_mean = alpha(self\_report\_clean %>% select(matches("quic(01|02|03|04|05|06|07|08|09)")), check.keys = TRUE)$total$raw\_alpha %>% round(2),   
 quic\_par\_predict\_mean = alpha(self\_report\_clean %>% select(matches("quic(10|11|12|13|14|15|16|17|18|19|20|21)")), check.keys = TRUE)$total$raw\_alpha %>% round(2),   
 quic\_par\_env\_mean = alpha(self\_report\_clean %>% select(matches("quic(22|23|24|25|26|27)")), check.keys = TRUE)$total$raw\_alpha %>% round(2),   
 quic\_phys\_env\_mean = alpha(self\_report\_clean %>% select(matches("quic(28|29|30|31|32|33|34)")), check.keys = TRUE)$total$raw\_alpha %>% round(2),   
 quic\_safety\_mean = alpha(self\_report\_clean %>% select(matches("quic(35|36|37)")), check.keys = TRUE)$total$raw\_alpha %>% round(2),   
 unp\_mean = alpha(self\_report\_clean %>% select(matches("unp\\d\\d")), check.keys = TRUE)$total$raw\_alpha %>% round(2),  
 chaos\_mean = alpha(self\_report\_clean %>% select(matches("chaos\\d\\d")), check.keys = TRUE)$total$raw\_alpha %>% round(2),  
 ses\_subj\_mean = alpha(self\_report\_clean %>% select(matches("ses\\d\\d")), check.keys = TRUE)$total$raw\_alpha %>% round(2),  
 violence\_mean = alpha(self\_report\_clean %>% select(matches("violence\\d\\d")), check.keys = TRUE)$total$raw\_alpha %>% round(2),  
 impuls\_mean = alpha(self\_report\_clean %>% select(matches("impuls\\d\\d")), check.keys = TRUE)$total$raw\_alpha %>% round(2),  
 fos\_fo\_mean = alpha(self\_report\_clean %>% select(matches("fos\\d\\d")), check.keys = TRUE)$total$raw\_alpha %>% round(2),  
 fos\_pa\_mean = alpha(self\_report\_clean %>% select(matches("fos(01|06|07|12|13)")), check.keys = TRUE)$total$raw\_alpha %>% round(2),  
 fos\_tp\_mean = alpha(self\_report\_clean %>% select(matches("fos(02|05|08|11|14)")), check.keys = TRUE)$total$raw\_alpha %>% round(2),  
 fos\_fc\_mean = alpha(self\_report\_clean %>% select(matches("fos(03|04|09|10|15)")), check.keys = TRUE)$total$raw\_alpha %>% round(2),  
 depression\_mean = alpha(self\_report\_clean %>% select(matches("depression\\d\\d")), check.keys = TRUE)$total$raw\_alpha %>% round(2),  
) %>%  
 pivot\_longer(everything(), names\_to = "Scale", values\_to = "Reliability") %>%  
 flextable(cwidth = c(3, 1)) %>%  
 bold(i = c(1,2,8,9,10,11,12,13,17), j = 1) %>%  
 padding(i = c(3:7, 14:16), padding.left = 20)

## Warning in alpha(self\_report\_clean %>% select(matches("stai\_s\\d\\d")), : Some items were negatively correlated with total scale and were automatically reversed.  
## This is indicated by a negative sign for the variable name.

## Warning in alpha(self\_report\_clean %>% select(matches("quic\\d\\d")), check.keys = TRUE): Some items were negatively correlated with total scale and were automatically reversed.  
## This is indicated by a negative sign for the variable name.

## Warning in alpha(self\_report\_clean %>% select(matches("quic(10|11|12|13|14|15|16|17|18|19|20|21)")), : Some items were negatively correlated with total scale and were automatically reversed.  
## This is indicated by a negative sign for the variable name.

## Warning in alpha(self\_report\_clean %>% select(matches("quic(22|23|24|25|26|27)")), : Some items were negatively correlated with total scale and were automatically reversed.  
## This is indicated by a negative sign for the variable name.

## Warning in alpha(self\_report\_clean %>% select(matches("quic(28|29|30|31|32|33|34)")), : Some items were negatively correlated with total scale and were automatically reversed.  
## This is indicated by a negative sign for the variable name.

## Warning in alpha(self\_report\_clean %>% select(matches("chaos\\d\\d")), check.keys = TRUE): Some items were negatively correlated with total scale and were automatically reversed.  
## This is indicated by a negative sign for the variable name.

## Warning in alpha(self\_report\_clean %>% select(matches("ses\\d\\d")), check.keys = TRUE): Some items were negatively correlated with total scale and were automatically reversed.  
## This is indicated by a negative sign for the variable name.

## Warning in alpha(self\_report\_clean %>% select(matches("violence\\d\\d")), : Some items were negatively correlated with total scale and were automatically reversed.  
## This is indicated by a negative sign for the variable name.

## Warning in alpha(self\_report\_clean %>% select(matches("fos\\d\\d")), check.keys = TRUE): Some items were negatively correlated with total scale and were automatically reversed.  
## This is indicated by a negative sign for the variable name.

## Warning in alpha(self\_report\_clean %>% select(matches("fos(01|06|07|12|13)")), : Some items were negatively correlated with total scale and were automatically reversed.  
## This is indicated by a negative sign for the variable name.

## Warning in alpha(self\_report\_clean %>% select(matches("fos(02|05|08|11|14)")), : Some items were negatively correlated with total scale and were automatically reversed.  
## This is indicated by a negative sign for the variable name.

## Warning in alpha(self\_report\_clean %>% select(matches("fos(03|04|09|10|15)")), : Some items were negatively correlated with total scale and were automatically reversed.  
## This is indicated by a negative sign for the variable name.

## Warning in alpha(self\_report\_clean %>% select(matches("depression\\d\\d")), : Some items were negatively correlated with total scale and were automatically reversed.  
## This is indicated by a negative sign for the variable name.

alphas

| Scale | Reliability |
| --- | --- |
| **stai\_s\_mean** | 0.94 |
| **quic\_total\_mean** | 0.95 |
| quic\_monitoring\_mean | 0.91 |
| quic\_par\_predict\_mean | 0.89 |
| quic\_par\_env\_mean | 0.80 |
| quic\_phys\_env\_mean | 0.77 |
| quic\_safety\_mean | 0.76 |
| **unp\_mean** | 0.91 |
| **chaos\_mean** | 0.93 |
| **ses\_subj\_mean** | 0.92 |
| **violence\_mean** | 0.92 |
| **impuls\_mean** | 0.87 |
| **fos\_fo\_mean** | 0.80 |
| fos\_pa\_mean | 0.66 |
| fos\_tp\_mean | 0.60 |
| fos\_fc\_mean | 0.61 |
| **depression\_mean** | 0.93 |

## Correlations

correlations <- self\_report\_clean %>%  
 select(ends\_with(c("mean", "total", "composite", "\_recoded")), sleep, hungry, rested, att\_noise,  
 unp\_moving, unp\_household\_size, unp\_partners\_father, unp\_partners\_mother)   
   
  
  
  
table\_cor\_adversity <- correlations %>%  
 select(unp\_mean, quic\_total\_mean, chaos\_mean, change\_env\_mean,   
 unp\_moving, unp\_household\_size, unp\_partners\_father, unp\_partners\_mother,  
 violence\_mean, fighting\_mean, violence\_composite,  
 ses\_subj\_mean\_recoded, ses\_obj\_mean, poverty\_composite,  
 ) %>%  
 corr\_table(  
 c.names = c("Perceived", "QUIC", "CHAOS", "Env. change", "Residential changes", "Household size", "Partners mother", "Partners father", "Neighborhood", "Fighting", "Composite", "Perceived", "Objective", "Composite"),  
 numbered = T,  
 flagged = T,  
 stats = ""  
 ) %>%  
 gt(groupname\_col = "stat\_group") %>%  
 cols\_label(Variable = " ") %>%   
 tab\_spanner(c("Unpredictability"), columns = 2:9) %>%   
 tab\_spanner(c("Violence"), columns = 10:12) %>%   
 tab\_spanner(c("Poverty"), columns = 13:15) %>%  
 tab\_style(  
 style = cell\_borders("all", color = "white"),  
 locations = cells\_body(columns = 1:15, rows = 2:14)  
 ) %>%  
 tab\_options(  
 table.font.size = "10px",  
 )

## Warning: `funs()` was deprecated in dplyr 0.8.0.  
## Please use a list of either functions or lambdas:   
##   
## # Simple named list:   
## list(mean = mean, median = median)  
##   
## # Auto named with `tibble::lst()`:   
## tibble::lst(mean, median)  
##   
## # Using lambdas  
## list(~ mean(., trim = .2), ~ median(., na.rm = TRUE))  
## This warning is displayed once every 8 hours.  
## Call `lifecycle::last\_lifecycle\_warnings()` to see where this warning was generated.

table\_cor\_unpredictability <- correlations %>%  
 select(unp\_mean, starts\_with("quic"), chaos\_mean, change\_env\_mean,  
 unp\_moving, unp\_household\_size, unp\_partners\_father, unp\_partners\_mother) %>%  
 mutate(  
 unp\_moving = case\_when(  
 unp\_moving == 0 ~ 0,  
 unp\_moving %in% c(1,2) ~ 1,  
 unp\_moving %in% c(3,4) ~ 2,  
 unp\_moving %in% c(5,6) ~ 3,  
 unp\_moving %in% c(7,8) ~ 4,  
 unp\_moving %in% c(9,10) ~ 5,  
 unp\_moving > 10 ~ 6,  
 ),  
 unp\_partners\_mother = case\_when(  
 unp\_partners\_mother == 0 ~ 0,  
 unp\_partners\_mother == 1 ~ 1,  
 unp\_partners\_mother == 2 ~ 2,  
 unp\_partners\_mother == 3 ~ 3,  
 unp\_partners\_mother == 4 ~ 4,  
 unp\_partners\_mother == 5 ~ 5,  
 unp\_partners\_mother >= 6 ~ 6,  
 ),  
 unp\_partners\_father = case\_when(  
 unp\_partners\_father == 0 ~ 0,  
 unp\_partners\_father == 1 ~ 1,  
 unp\_partners\_father == 2 ~ 2,  
 unp\_partners\_father == 3 ~ 3,  
 unp\_partners\_father == 4 ~ 4,  
 unp\_partners\_father == 5 ~ 5,  
 unp\_partners\_father >= 6 ~ 6,  
 )  
 ) %>%  
 corr\_table(  
 c.names = c("Perceived", "Monitoring", "Par. predictability", "Par. env.", "Phys. env.", "Safety", "Total", "CHAOS", "Env. change",   
 "Residential changes", "Household size", "Partners mother", "Partners father"),  
 numbered = T,  
 flagged = T,  
 stats = ""  
 ) %>%  
 gt(groupname\_col = "stat\_group") %>%  
 cols\_label(Variable = " ") %>%   
 tab\_spanner(c("QUIC"), columns = 3:8) %>%   
 tab\_spanner(c("CHAOS"), columns = 9) %>%   
 tab\_spanner(c("Objective"), columns = 11:14) %>%   
 tab\_style(  
 style = cell\_borders("all", color = "white"),  
 locations = cells\_body(columns = 1:14, rows = 2:14)  
 ) %>%  
 tab\_options(  
 table.font.size = "10px",  
 )  
  
  
  
table\_cor\_all <- self\_report\_clean %>%  
 select(unp\_mean, quic\_total\_mean, chaos\_mean, change\_env\_mean,   
 violence\_composite, poverty\_composite, impuls\_mean,   
 fos\_fo\_mean, fos\_pa\_mean, fos\_tp\_mean, fos\_fc\_mean) %>%  
 mutate(unpredictability = across(c(unp\_mean, quic\_total\_mean, chaos\_mean, change\_env\_mean)) %>% rowMeans(., na.rm = T)) %>%  
 select(unpredictability, everything(), -c(unp\_mean, quic\_total\_mean, chaos\_mean, change\_env\_mean)) %>%  
 corr\_table(  
 c.names = c("Unpredictability", "Violence", "Poverty", "Impulsivity", "FOS - Composite", "FOS - planning", "FOS - time persp.", "FOS - Fut. conseq."),  
 numbered = T,  
 flagged = T,  
 stats = c("")  
 ) %>%  
 gt() %>%  
 tab\_style(  
 style = cell\_borders("all", color = "white"),  
 locations = cells\_body(columns = 1:9, rows = 2:10)  
 ) %>%  
 tab\_options(  
 table.font.size = "10px",  
 )

table\_cor\_adversity

table\_cor\_unpredictability

table\_cor\_all