

# Honors Contract

Kacie Chong

2025-04-22

```
# Load required libraries
```

```
library(haven)      # To read SPSS .sav files  
library(psych)      # For descriptive statistics  
library(dplyr)      # For data manipulation
```

```
##
```

```
## Attaching package: 'dplyr'
```

```
## The following objects are masked from 'package:stats':
```

```
##
```

```
##   filter, lag
```

```
## The following objects are masked from 'package:base':
```

```
##
```

```
##   intersect, setdiff, setequal, union
```

```
library(labelled)    # For handling labelled SPSS data
```

```
library(effsize)     # For effect size calculations (Cohen's d)
```

```
##
```

```
## Attaching package: 'effsize'
```

```
## The following object is masked from 'package:psych':
```

```
##
```

```
##   cohen.d
```

```
library(knitr)        # To create neat tables
```

```
# Load SPSS data file, convert to CSV, and read it back in
```

```
load_savfile <- read_spss("/Users/kaciechong/Desktop/Honors/Kanstrup_Singh_Holmes_EKUT_Pilot_data (2).sav")
```

```
write.csv(load_savfile, file = "/Users/kaciechong/Desktop/Honors/myfile.csv", row.names = FALSE)
```

```
data <- read.csv("/Users/kaciechong/Desktop/Honors/myfile.csv")
```

```
# Set the 'Condition' column as a factor and prepare an empty dataframe for descriptive stats
```

```
data$Condition <- as.factor(data$Condition)
```

```
descriptive_stats <- data.frame(row.names = colnames(data), stringsAsFactors = FALSE)
```

```

# Calculate descriptive statistics (n, mean, sd) for each group: Intervention (Condition == 1) and Control (Condition == 2)
## Shortened "intervention" to "inter" for readability on table
## Shortened "control" to "con" for readability on table
## Shorten name with abbreviations for readability on table
names(data) <- gsub("Intervention_within_6h_72h_since_trauma", "Interv_6_72h", names(data))
names(data) <- gsub("Inclusion_within_6h_72h_since_trauma", "Inclus_6_72h", names(data))

tetriss_stats <- describe(subset(data, Condition == 1)) %>%
  select(c("n", "mean", "sd")) %>%
  rename("inter_n" = n,
         "inter_mean" = mean,
         "inter_sd" = sd)

control_stats <- describe(subset(data, Condition == 2)) %>%
  select(c("n", "mean", "sd")) %>%
  rename("con_n" = n,
         "con_mean" = mean,
         "con_sd" = sd)

# Combine stats into a single dataframe
descriptive_stats <- cbind(tetriss_stats, control_stats)
kable(descriptive_stats, caption = "Descriptive Statistics")

```

Table 1: Descriptive Statistics

	inter_n	inter_mean	inter_sd	con_n	con_mean	con_sd
Condition	22	1.0000000	0.0000000	19	2.0000000	0.0000000
Time_since_traumatic_event	22	646.3181818	839.7897348	19	259.6315789	211.8110296
PDI_score	22	14.1818182	8.7811289	19	17.3157895	9.2559448
PDEQ_score	22	16.2272727	7.9637980	19	19.1578947	9.2151033
Version_lifethreat_questionnaire	22	2.4545455	0.7385489	19	2.2105263	0.7873265
Perceived_threat	22	5.6363636	3.1704807	19	5.3684211	3.2865133
Lifethreat_self	16	3.0000000	3.3466401	12	3.9166667	3.2601822
Lifethreat_other	16	0.3750000	1.5000000	12	1.4166667	2.9682665
Serious_injury_threat_self	13	6.2307692	2.7127430	8	4.7500000	2.9154759
Serious_injury_threat_other	13	0.4615385	1.6641006	8	1.0000000	2.1380899
Lifeinjurythreat_self	6	4.0000000	3.2249031	7	6.8571429	3.0783422
Lifeinjurythreat_other	6	1.3333333	3.2659863	7	1.5714286	3.7352886
SRSR_total_baseline	22	5.9090909	2.3484360	19	5.0000000	2.9814240
SRHR_baseline	22	5.8181818	1.0970247	19	5.3684211	1.2115429
CES_sum	21	25.4761905	15.0420047	19	26.3684211	9.8161461
Inclus_6_72h	22	1.3636364	0.4923660	19	1.1052632	0.3153018
Interv_6_72h	22	1.3636364	0.4923660	19	1.1578947	0.3746343
ISS	22	2.0454545	1.6755176	19	2.1578947	1.6077299
Intrusions_diary_w1_total	20	3.8500000	8.5733676	19	7.3684211	7.8825442
Intrusions_diary_w1_day1	20	0.9500000	2.3050288	19	1.9473684	2.6765169
Intrusions_diary_w1_day2	20	0.9000000	2.9000907	19	1.5789474	1.4649911
Intrusions_diary_w1_day3	20	0.5500000	1.6050906	19	0.9473684	1.1290942
Intrusions_diary_w1_day4	20	0.5000000	1.0513150	19	0.8947368	1.2425215
Intrusions_diary_w1_day5	19	0.3157895	0.6710383	19	0.6842105	1.1572300
Intrusions_diary_w1_day6	19	0.2631579	0.6533763	19	0.6315789	1.2115429
Intrusions_diary_w1_day7	19	0.4210526	1.1212983	19	0.6842105	1.1081833

	inter_n	inter_mean	inter_sd	con_n	con_mean	con_sd
Intrusions_diary_w1_accuracy	15	8.6666667	1.5430335	16	8.2187500	1.6017568
Intrusions_diary_w1_vividness	13	2.8461538	3.4362323	16	4.5000000	3.4641016
Intrusions_diary_w1_distress	13	2.0000000	2.5495098	16	3.3750000	3.4229617
IES_R_total_followup1	16	9.5000000	7.8993671	17	21.0000000	17.0403932
IES_R_intrusion_followup1	16	4.1250000	4.1291646	17	8.5294118	6.2261309
IES_R_avoidance_followup1	16	2.3750000	2.4186773	17	8.0588235	7.8459431
IES_R_hyperarousal_followup1	16	3.0000000	2.7325202	17	4.4117647	5.0007352
HADS_total_followup1	16	4.8750000	4.6169976	17	7.7647059	6.8055989
HADS_A_followup1	16	3.2500000	2.8867513	17	4.7058824	3.6360127
HADS_D_followup1	16	1.6250000	1.8929694	17	3.0588235	3.3628594
WSAS_total_followup1	16	17.0625000	11.2574050	16	14.1250000	10.6700515
SRSR_total_followup1	16	5.8125000	2.1669872	16	4.8750000	2.5265259
SRHR_followup1	16	5.6250000	1.3601471	16	5.1250000	1.5438048
Sensorymodality_visual_followup1	16	1.8125000	1.2763881	16	2.5625000	1.2632630
Sensorymodality_auditory_followup1	16	1.3125000	0.7932003	16	1.2500000	0.5773503
Sensorymodality_tactile_followup1	16	1.2500000	0.5773503	16	1.7500000	1.3416408
Sensorymodality_somatic_followup1	16	1.3125000	0.6020797	16	1.7500000	1.2382784
Sensorymodality_olfactory_followup1	16	1.0000000	0.0000000	16	1.1250000	0.5000000
Sensorymodality_taste_followup1	16	1.0000000	0.0000000	16	1.0625000	0.2500000
Sensorymodality_other_followup1	16	1.0000000	0.0000000	16	1.3125000	0.8732125
Feedback_Questionnaire_1_followup1	16	0.3125000	0.4787136	16	0.1875000	0.4031129
Feedback_Questionnaire_2_followup1	16	1.9375000	2.1437895	8	1.2500000	0.7071068
Concentrationdisruption_followup1	16	1.3750000	0.7187953	16	2.3875000	1.6451444
Intrusions_diary_w5_total	18	0.2777778	0.5745131	18	2.8888889	6.4341816
Intrusions_diary_w5_day1	18	0.0000000	0.0000000	18	0.3333333	0.9701425
Intrusions_diary_w5_day2	18	0.0555556	0.2357023	18	0.5000000	0.9235481
Intrusions_diary_w5_day3	18	0.0000000	0.0000000	18	0.3888889	0.8498366
Intrusions_diary_w5_day4	18	0.1111111	0.3233808	18	0.4444444	1.4641690
Intrusions_diary_w5_day5	18	0.0555556	0.2357023	18	0.3888889	0.6978023
Intrusions_diary_w5_day6	18	0.0555556	0.2357023	18	0.4444444	1.0416176
Intrusions_diary_w5_day7	18	0.0000000	0.0000000	18	0.3888889	1.0369009
Intrusions_diary_w5_accuracy	14	8.2142857	2.1187286	16	8.5625000	1.6720746
Intrusions_diary_w5_vividness	13	1.0769231	2.2898886	16	1.8750000	2.5265259
Intrusions_diary_w5_distress	13	1.6923077	3.4492660	16	1.2500000	2.2360680
MINI_H.PTS_ptsdresult_followup2	15	0.0000000	0.0000000	17	0.0000000	0.0000000
MINI_sum_followup2	14	2.3571429	2.2051389	17	2.4117647	2.0633354
IES_R_total_followup2	16	5.1875000	8.7728274	18	9.3888889	9.7022671
IES_R_intrusion_followup2	16	1.8750000	2.3909552	18	3.7777778	3.7188796
IES_R_avoidance_followup2	16	1.9375000	4.5529295	18	3.3888889	4.2721931
IES_R_hyperarousal_followup2	16	1.3750000	2.5265259	18	2.2222222	3.2277392
HADS_total_followup2	16	5.3125000	5.7586891	18	6.5555556	6.0606952
HADS_A_followup2	16	3.1875000	3.0159299	18	3.8333333	3.0726497
HADS_D_followup2	16	2.1250000	3.2429411	18	2.7222222	3.6267885
WSAS_total_followup2	16	8.6250000	10.5316982	18	9.5555556	12.6408405
SRSR_total_followup2	16	6.6875000	1.4008926	18	5.6666667	2.6788935
SRHR_followup2	16	5.0625000	1.8427787	18	5.0000000	1.2833779
PSS_total_followup2	16	19.9375000	9.0735421	18	20.7222222	10.7856416
Sensorymodality_visual_followup2	16	1.1875000	0.5439056	18	1.7777778	0.9428090
Sensorymodality_auditory_followup2	16	1.2500000	0.7745967	18	1.2777778	0.6691132
Sensorymodality_tactile_followup2	16	1.0000000	0.0000000	18	1.3888889	0.6076850
Sensorymodality_somatic_followup2	16	1.1250000	0.3415650	18	1.4444444	0.7047922
Sensorymodality_olfactory_followup2	16	1.0625000	0.2500000	18	1.0555556	0.2357023

	inter_n	inter_mean	inter_sd	con_n	con_mean	con_sd
Sensorymodality_taste_followup2	16	1.0000000	0.0000000	18	1.0555556	0.2357023
Sensorymodality_other_followup2	16	1.2500000	0.7745967	18	1.0555556	0.2357023
Concentrationdisruption_followup2	15	1.2666667	1.0327956	18	1.8333333	1.5048940
Feedback_Questionnaire_1_followup2	15	7.7333333	1.7915144	18	6.9444444	2.4845930
Feedback_Questionnaire_2_followup2	15	6.2666667	2.1865389	13	5.8461538	2.7942248
Feedback_Questionnaire_3_followup2	15	6.3333333	2.6367368	18	6.5000000	2.2294816
Feedback_Questionnaire_4_followup2	15	4.3333333	2.4976179	13	4.0769231	2.4651416
Feedback_Questionnaire_5_followup2	15	1.7333333	1.2798809	13	2.7692308	2.1273554
Feedback_Questionnaire_6_followup2	15	5.8666667	2.2635833	13	5.4615385	2.9612887
Feedback_Questionnaire_7_followup2	15	-1.2000000	2.0770859	18	-1.4444444	3.6010166
Feedback_Questionnaire_8_followup2	15	0.7333333	1.2798809	18	0.3888889	1.3779306
Feedback_Questionnaire_11_followup2	15	0.1333333	0.3518658	18	0.1111111	0.3233808
Feedback_Questionnaire_13_followup2	15	6.0000000	2.1380899	18	5.7777778	1.6996732
Feedback_Questionnaire_14_followup2	12	3.0000000	2.5226249	13	3.3846154	2.7549489
Feedback_Questionnaire_15_followup2	15	0.2000000	0.4140393	18	0.1111111	0.3233808
MINI_H.PTS_ptsdresult_followup3	16	0.0000000	0.0000000	17	0.0000000	0.0000000
MINI_sum_followup3	15	1.2000000	1.5675276	14	2.0714286	2.7305758
IES_R_total_followup3	15	3.2000000	4.9454163	18	4.8888889	6.7986927
IES_R_intrusion_followup3	15	1.3333333	2.1269249	18	2.3333333	2.8284271
IES_R_avoidance_followup3	15	0.8000000	1.2649111	18	1.6111111	2.8520145
IES_R_hyperarousal_followup3	15	1.0666667	2.2189659	18	0.9444444	1.5893847
HADS_total_followup3	14	3.7857143	4.6604485	18	5.3888889	5.4030372
HADS_A_followup3	14	2.3571429	2.8984649	18	3.2222222	3.1539994
HADS_D_followup3	14	1.4285714	1.9100659	18	2.1666667	2.5029394
WSAS_total_followup3	14	5.5000000	8.9249003	18	4.7222222	6.3875389
SRSR_total_followup3	14	7.2142857	1.1883131	18	6.2777778	2.2701530
SRHR_followup3	14	5.5714286	1.3424596	18	5.4444444	0.8555853
Concentrationdisruption_followup3	14	1.4285714	1.6035675	18	1.5555556	1.1490263
Feedback_Questionnaire_1_followup3	14	8.0714286	2.3026502	18	6.1111111	2.4707438
Feedback_Questionnaire_2_followup3	14	7.0000000	2.6017745	18	6.2777778	2.4448158
Feedback_Questionnaire_3_followup3	14	7.7857143	1.8471838	18	6.8333333	2.6178123
Feedback_Questionnaire_4_followup3	14	2.7857143	1.7177163	18	5.5555556	2.8330450
Feedback_Questionnaire_5_followup3	14	1.4285714	1.0894096	18	2.8888889	2.1932755
Feedback_Questionnaire_6_followup3	14	5.2142857	2.7506243	18	6.2777778	2.7182511
Feedback_Questionnaire_7_followup3	14	-0.1428571	1.7913099	18	-1.3333333	3.8805700
Feedback_Questionnaire_8_followup3	14	0.4285714	0.9376145	18	0.6666667	1.1881771
Feedback_Questionnaire_11_followup3	14	0.0000000	0.0000000	18	0.0555556	0.2357023
Feedback_Questionnaire_13_followup3	14	6.0714286	2.5858873	18	6.4444444	2.6395682
Feedback_Questionnaire_14_followup3	14	2.6428571	2.4371213	18	4.1666667	2.5724788
Feedback_Questionnaire_15_followup3	14	0.0714286	0.2672612	18	0.2222222	0.4277926
MINI_H.PTS_ptsdresult_followup4	15	0.0000000	0.0000000	15	0.0000000	0.0000000
MINI_sum_followup4	15	1.0666667	1.9444671	15	1.4666667	1.8073922
IES_R_total_followup4	12	2.4166667	6.2879153	15	2.2000000	3.1667920
IES_R_intrusion_followup4	12	1.3333333	3.4728383	16	0.7500000	1.1254629
IES_R_avoidance_followup4	12	0.4166667	0.9003366	15	0.9333333	1.3345233
IES_R_hyperarousal_followup4	12	0.6666667	2.0150946	16	0.6250000	1.7841898
HADS_total_followup4	12	3.1666667	4.0188948	15	5.5333333	4.6578147
HADS_A_followup4	12	2.0833333	2.5030285	16	3.4375000	3.2242570
HADS_D_followup4	12	1.0833333	1.6764862	15	1.8666667	1.8073922
WSAS_total_followup4	12	4.0000000	9.2244734	16	4.6875000	8.8522596
SRSR_total_followup4	12	7.2500000	0.8660254	16	5.1250000	2.6551836
SRHR_followup4	12	5.8333333	1.3371158	16	5.3750000	1.3601471

	inter_n	inter_mean	inter_sd	con_n	con_mean	con_sd
Concentrationdisruption_followup4	12	1.5833333	1.7298625	15	1.2666667	0.7037316
Feedback_Questionnaire_1_followup4	12	7.0833333	2.7122059	15	7.0666667	2.3744674
Feedback_Questionnaire_2_followup4	12	7.5833333	2.1087839	15	6.8666667	2.1336309
Feedback_Questionnaire_3_followup4	12	7.7500000	2.0056738	15	7.2000000	2.1111947
Feedback_Questionnaire_4_followup4	12	3.5000000	2.0670576	15	5.6000000	3.0891515
Feedback_Questionnaire_5_followup4	12	1.7500000	0.9653073	15	2.1333333	1.7265435
Feedback_Questionnaire_6_followup4	12	5.4166667	3.1466673	14	5.9285714	3.1246978
Feedback_Questionnaire_7_followup4	12	-1.7500000	2.8959219	15	-1.6000000	3.7947332
Feedback_Questionnaire_8_followup4	12	0.5833333	0.9003366	15	1.1333333	1.4573296
Feedback_Questionnaire_11_followup4	12	0.1666667	0.3892495	15	0.2000000	0.4140393
Feedback_Questionnaire_13_followup4	12	5.9166667	3.1466673	15	6.7333333	2.4918916
Feedback_Questionnaire_14_followup4	12	2.5833333	2.1087839	15	3.8000000	3.1213550
Feedback_Questionnaire_15_followup4	12	0.2500000	0.4522670	15	0.0000000	0.0000000

```
# Focus on one variable of interest: Intrusions_diary_w1_total
## Calculate group-wise descriptive statistics for this variable
intervention <- describe(data$Intrusions_diary_w1_total[data$Condition == 1])
control <- describe(data$Intrusions_diary_w1_total[data$Condition == 2])

descriptives <- data.frame(
  group = c("Intervention", "Control"),
  n = c(intervention$n, control$n),
  mean = c(intervention$mean, control$mean),
  sd = c(intervention$sd, control$sd)
)
kable(descriptive_stats, caption = "Descriptive Statistics")
```

Table 2: Descriptive Statistics

	inter_n	inter_mean	inter_sd	con_n	con_mean	con_sd
Condition	22	1.0000000	0.0000000	19	2.0000000	0.0000000
Time_since_traumatic_event	22	646.3181818	839.7897348	19	259.6315789	211.8110296
PDI_score	22	14.1818182	8.7811289	19	17.3157895	9.2559448
PDEQ_score	22	16.2272727	7.9637980	19	19.1578947	9.2151033
Version_lifethreat_questionnaire	22	2.4545455	0.7385489	19	2.2105263	0.7873265
Perceived_threat	22	5.6363636	3.1704807	19	5.3684211	3.2865133
Lifethreat_self	16	3.0000000	3.3466401	12	3.9166667	3.2601822
Lifethreat_other	16	0.3750000	1.5000000	12	1.4166667	2.9682665
Serious_injury_threat_self	13	6.2307692	2.7127430	8	4.7500000	2.9154759
Serious_injury_threat_other	13	0.4615385	1.6641006	8	1.0000000	2.1380899
Lifeinjurythreat_self	6	4.0000000	3.2249031	7	6.8571429	3.0783422
Lifeinjurythreat_other	6	1.3333333	3.2659863	7	1.5714286	3.7352886
SRSR_total_baseline	22	5.9090909	2.3484360	19	5.0000000	2.9814240
SRHR_baseline	22	5.8181818	1.0970247	19	5.3684211	1.2115429
CES_sum	21	25.4761905	15.0420047	19	26.3684211	9.8161461
Inclus_6_72h	22	1.3636364	0.4923660	19	1.1052632	0.3153018
Interv_6_72h	22	1.3636364	0.4923660	19	1.1578947	0.3746343
ISS	22	2.0454545	1.6755176	19	2.1578947	1.6077299
Intrusions_diary_w1_total	20	3.8500000	8.5733676	19	7.3684211	7.8825442
Intrusions_diary_w1_day1	20	0.9500000	2.3050288	19	1.9473684	2.6765169

	inter_n	inter_mean	inter_sd	con_n	con_mean	con_sd
Intrusions_diary_w1_day2	20	0.9000000	2.9000907	19	1.5789474	1.4649911
Intrusions_diary_w1_day3	20	0.5500000	1.6050906	19	0.9473684	1.1290942
Intrusions_diary_w1_day4	20	0.5000000	1.0513150	19	0.8947368	1.2425215
Intrusions_diary_w1_day5	19	0.3157895	0.6710383	19	0.6842105	1.1572300
Intrusions_diary_w1_day6	19	0.2631579	0.6533763	19	0.6315789	1.2115429
Intrusions_diary_w1_day7	19	0.4210526	1.1212983	19	0.6842105	1.1081833
Intrusions_diary_w1_accuracy	15	8.6666667	1.5430335	16	8.2187500	1.6017568
Intrusions_diary_w1_vividness	13	2.8461538	3.4362323	16	4.5000000	3.4641016
Intrusions_diary_w1_distress	13	2.0000000	2.5495098	16	3.3750000	3.4229617
IES_R_total_followup1	16	9.5000000	7.8993671	17	21.0000000	17.0403932
IES_R_intrusion_followup1	16	4.1250000	4.1291646	17	8.5294118	6.2261309
IES_R_avoidance_followup1	16	2.3750000	2.4186773	17	8.0588235	7.8459431
IES_R_hyperarousal_followup1	16	3.0000000	2.7325202	17	4.4117647	5.0007352
HADS_total_followup1	16	4.8750000	4.6169976	17	7.7647059	6.8055989
HADS_A_followup1	16	3.2500000	2.8867513	17	4.7058824	3.6360127
HADS_D_followup1	16	1.6250000	1.8929694	17	3.0588235	3.3628594
WSAS_total_followup1	16	17.0625000	11.2574050	16	14.1250000	10.6700515
SRSR_total_followup1	16	5.8125000	2.1669872	16	4.8750000	2.5265259
SRHR_followup1	16	5.6250000	1.3601471	16	5.1250000	1.5438048
Sensorymodality_visual_followup1	16	1.8125000	1.2763881	16	2.5625000	1.2632630
Sensorymodality_auditory_followup1	16	1.3125000	0.7932003	16	1.2500000	0.5773503
Sensorymodality_tactile_followup1	16	1.2500000	0.5773503	16	1.7500000	1.3416408
Sensorymodality_somatic_followup1	16	1.3125000	0.6020797	16	1.7500000	1.2382784
Sensorymodality_olfactory_followup1	16	1.0000000	0.0000000	16	1.1250000	0.5000000
Sensorymodality_taste_followup1	16	1.0000000	0.0000000	16	1.0625000	0.2500000
Sensorymodality_other_followup1	16	1.0000000	0.0000000	16	1.3125000	0.8732125
Feedback_Questionnaire_1_followup1	16	0.3125000	0.4787136	16	0.1875000	0.4031129
Feedback_Questionnaire_2_followup1	16	1.9375000	2.1437895	8	1.2500000	0.7071068
Concentrationdisruption_followup1	16	1.3750000	0.7187953	16	2.3875000	1.6451444
Intrusions_diary_w5_total	18	0.2777778	0.5745131	18	2.8888889	6.4341816
Intrusions_diary_w5_day1	18	0.0000000	0.0000000	18	0.3333333	0.9701425
Intrusions_diary_w5_day2	18	0.0555556	0.2357023	18	0.5000000	0.9235481
Intrusions_diary_w5_day3	18	0.0000000	0.0000000	18	0.3888889	0.8498366
Intrusions_diary_w5_day4	18	0.1111111	0.3233808	18	0.4444444	1.4641690
Intrusions_diary_w5_day5	18	0.0555556	0.2357023	18	0.3888889	0.6978023
Intrusions_diary_w5_day6	18	0.0555556	0.2357023	18	0.4444444	1.0416176
Intrusions_diary_w5_day7	18	0.0000000	0.0000000	18	0.3888889	1.0369009
Intrusions_diary_w5_accuracy	14	8.2142857	2.1187286	16	8.5625000	1.6720746
Intrusions_diary_w5_vividness	13	1.0769231	2.2898886	16	1.8750000	2.5265259
Intrusions_diary_w5_distress	13	1.6923077	3.4492660	16	1.2500000	2.2360680
MINI_H.PTS_ptsdresult_followup2	15	0.0000000	0.0000000	17	0.0000000	0.0000000
MINI_sum_followup2	14	2.3571429	2.2051389	17	2.4117647	2.0633354
IES_R_total_followup2	16	5.1875000	8.7728274	18	9.3888889	9.7022671
IES_R_intrusion_followup2	16	1.8750000	2.3909552	18	3.7777778	3.7188796
IES_R_avoidance_followup2	16	1.9375000	4.5529295	18	3.3888889	4.2721931
IES_R_hyperarousal_followup2	16	1.3750000	2.5265259	18	2.2222222	3.2277392
HADS_total_followup2	16	5.3125000	5.7586891	18	6.5555556	6.0606952
HADS_A_followup2	16	3.1875000	3.0159299	18	3.8333333	3.0726497
HADS_D_followup2	16	2.1250000	3.2429411	18	2.7222222	3.6267885
WSAS_total_followup2	16	8.6250000	10.5316982	18	9.5555556	12.6408405
SRSR_total_followup2	16	6.6875000	1.4008926	18	5.6666667	2.6788935
SRHR_followup2	16	5.0625000	1.8427787	18	5.0000000	1.2833779

	inter_n	inter_mean	inter_sd	con_n	con_mean	con_sd
PSS_total_followup2	16	19.9375000	9.0735421	18	20.7222222	10.7856416
Sensorymodality_visual_followup2	16	1.1875000	0.5439056	18	1.7777778	0.9428090
Sensorymodality_auditory_followup2	16	1.2500000	0.7745967	18	1.2777778	0.6691132
Sensorymodality_tactile_followup2	16	1.0000000	0.0000000	18	1.3888889	0.6076850
Sensorymodality_somatic_followup2	16	1.1250000	0.3415650	18	1.4444444	0.7047922
Sensorymodality_olfactory_followup2	16	1.0625000	0.2500000	18	1.0555556	0.2357023
Sensorymodality_taste_followup2	16	1.0000000	0.0000000	18	1.0555556	0.2357023
Sensorymodality_other_followup2	16	1.2500000	0.7745967	18	1.0555556	0.2357023
Concentrationdisruption_followup2	15	1.2666667	1.0327956	18	1.8333333	1.5048940
Feedback_Questionnaire_1_followup2	15	7.7333333	1.7915144	18	6.9444444	2.4845930
Feedback_Questionnaire_2_followup2	15	6.2666667	2.1865389	13	5.8461538	2.7942248
Feedback_Questionnaire_3_followup2	15	6.3333333	2.6367368	18	6.5000000	2.2294816
Feedback_Questionnaire_4_followup2	15	4.3333333	2.4976179	13	4.0769231	2.4651416
Feedback_Questionnaire_5_followup2	15	1.7333333	1.2798809	13	2.7692308	2.1273554
Feedback_Questionnaire_6_followup2	15	5.8666667	2.2635833	13	5.4615385	2.9612887
Feedback_Questionnaire_7_followup2	15	-1.2000000	2.0770859	18	-1.4444444	3.6010166
Feedback_Questionnaire_8_followup2	15	0.7333333	1.2798809	18	0.3888889	1.3779306
Feedback_Questionnaire_11_followup2	15	0.1333333	0.3518658	18	0.1111111	0.3233808
Feedback_Questionnaire_13_followup2	15	6.0000000	2.1380899	18	5.7777778	1.6996732
Feedback_Questionnaire_14_followup2	12	3.0000000	2.5226249	13	3.3846154	2.7549489
Feedback_Questionnaire_15_followup2	15	0.2000000	0.4140393	18	0.1111111	0.3233808
MINI_H.PTS_ptsdresult_followup3	16	0.0000000	0.0000000	17	0.0000000	0.0000000
MINI_sum_followup3	15	1.2000000	1.5675276	14	2.0714286	2.7305758
IES_R_total_followup3	15	3.2000000	4.9454163	18	4.8888889	6.7986927
IES_R_intrusion_followup3	15	1.3333333	2.1269249	18	2.3333333	2.8284271
IES_R_avoidance_followup3	15	0.8000000	1.2649111	18	1.6111111	2.8520145
IES_R_hyperarousal_followup3	15	1.0666667	2.2189659	18	0.9444444	1.5893847
HADS_total_followup3	14	3.7857143	4.6604485	18	5.3888889	5.4030372
HADS_A_followup3	14	2.3571429	2.8984649	18	3.2222222	3.1539994
HADS_D_followup3	14	1.4285714	1.9100659	18	2.1666667	2.5029394
WSAS_total_followup3	14	5.5000000	8.9249003	18	4.7222222	6.3875389
SRSR_total_followup3	14	7.2142857	1.1883131	18	6.2777778	2.2701530
SRHR_followup3	14	5.5714286	1.3424596	18	5.4444444	0.8555853
Concentrationdisruption_followup3	14	1.4285714	1.6035675	18	1.5555556	1.1490263
Feedback_Questionnaire_1_followup3	14	8.0714286	2.3026502	18	6.1111111	2.4707438
Feedback_Questionnaire_2_followup3	14	7.0000000	2.6017745	18	6.2777778	2.4448158
Feedback_Questionnaire_3_followup3	14	7.7857143	1.8471838	18	6.8333333	2.6178123
Feedback_Questionnaire_4_followup3	14	2.7857143	1.7177163	18	5.5555556	2.8330450
Feedback_Questionnaire_5_followup3	14	1.4285714	1.0894096	18	2.8888889	2.1932755
Feedback_Questionnaire_6_followup3	14	5.2142857	2.7506243	18	6.2777778	2.7182511
Feedback_Questionnaire_7_followup3	14	-0.1428571	1.7913099	18	-1.3333333	3.8805700
Feedback_Questionnaire_8_followup3	14	0.4285714	0.9376145	18	0.6666667	1.1881771
Feedback_Questionnaire_11_followup3	14	0.0000000	0.0000000	18	0.0555556	0.2357023
Feedback_Questionnaire_13_followup3	14	6.0714286	2.5858873	18	6.4444444	2.6395682
Feedback_Questionnaire_14_followup3	14	2.6428571	2.4371213	18	4.1666667	2.5724788
Feedback_Questionnaire_15_followup3	14	0.0714286	0.2672612	18	0.2222222	0.4277926
MINI_H.PTS_ptsdresult_followup4	15	0.0000000	0.0000000	15	0.0000000	0.0000000
MINI_sum_followup4	15	1.0666667	1.9444671	15	1.4666667	1.8073922
IES_R_total_followup4	12	2.4166667	6.2879153	15	2.2000000	3.1667920
IES_R_intrusion_followup4	12	1.3333333	3.4728383	16	0.7500000	1.1254629
IES_R_avoidance_followup4	12	0.4166667	0.9003366	15	0.9333333	1.3345233
IES_R_hyperarousal_followup4	12	0.6666667	2.0150946	16	0.6250000	1.7841898

	inter_n	inter_mean	inter_sd	con_n	con_mean	con_sd
HADS_total_followup4	12	3.1666667	4.0188948	15	5.5333333	4.6578147
HADS_A_followup4	12	2.0833333	2.5030285	16	3.4375000	3.2242570
HADS_D_followup4	12	1.0833333	1.6764862	15	1.8666667	1.8073922
WSAS_total_followup4	12	4.0000000	9.2244734	16	4.6875000	8.8522596
SRSR_total_followup4	12	7.2500000	0.8660254	16	5.1250000	2.6551836
SRHR_followup4	12	5.8333333	1.3371158	16	5.3750000	1.3601471
Concentrationdisruption_followup4	12	1.5833333	1.7298625	15	1.2666667	0.7037316
Feedback_Questionnaire_1_followup4	12	7.0833333	2.7122059	15	7.0666667	2.3744674
Feedback_Questionnaire_2_followup4	12	7.5833333	2.1087839	15	6.8666667	2.1336309
Feedback_Questionnaire_3_followup4	12	7.7500000	2.0056738	15	7.2000000	2.1111947
Feedback_Questionnaire_4_followup4	12	3.5000000	2.0670576	15	5.6000000	3.0891515
Feedback_Questionnaire_5_followup4	12	1.7500000	0.9653073	15	2.1333333	1.7265435
Feedback_Questionnaire_6_followup4	12	5.4166667	3.1466673	14	5.9285714	3.1246978
Feedback_Questionnaire_7_followup4	12	-1.7500000	2.8959219	15	-1.6000000	3.7947332
Feedback_Questionnaire_8_followup4	12	0.5833333	0.9003366	15	1.1333333	1.4573296
Feedback_Questionnaire_11_followup4	12	0.1666667	0.3892495	15	0.2000000	0.4140393
Feedback_Questionnaire_13_followup4	12	5.9166667	3.1466673	15	6.7333333	2.4918916
Feedback_Questionnaire_14_followup4	12	2.5833333	2.1087839	15	3.8000000	3.1213550
Feedback_Questionnaire_15_followup4	12	0.2500000	0.4522670	15	0.0000000	0.0000000

```
# Perform effect size (Cohen's d) and t-test on Intrusions_diary_w1_total
```

```
# First, remove missing values
```

```
clean_data <- data %>%  
  filter(!is.na(Intrusions_diary_w1_total))
```

```
# Extract values for each group
```

```
intervention <- clean_data %>%  
  filter(Condition == 1) %>%  
  pull(Intrusions_diary_w1_total)
```

```
control <- clean_data %>%
```

```
  filter(Condition == 2) %>%  
  pull(Intrusions_diary_w1_total)
```

```
# Compute Cohen's d (pooled)
```

```
cohen.d(control, intervention, pooled = TRUE)
```

```
##
```

```
## Cohen's d
```

```
##
```

```
## d estimate: 0.4267585 (small)
```

```
## 95 percent confidence interval:
```

```
##      lower      upper
```

```
## -0.2296981  1.0832151
```

```
# Perform t-test
```

```
t_test <- t.test(Intrusions_diary_w1_total ~ Condition, data = data)
```

```
# Extract relevant results from the t-test object
```

```
t_test_results <- data.frame(  
  Statistic = round(t_test$statistic, 3),
```



```

df = round(t_test$parameter, 0),
p_value = round(t_test$p.value, 3),
CI_lower = round(t_test$conf.int[1], 3),
CI_upper = round(t_test$conf.int[2], 3),
Mean_Difference = round(t_test$estimate[1] - t_test$estimate[2], 3)
)

# Print the result as a table using kable
library(knitr)
kable(t_test_results, caption = "T-Test Results")

```

Table 3: T-Test Results

	Statistic	df	p_value	CI_lower	CI_upper	Mean_Difference
t	-1.335	37	0.19	-8.858	1.822	-3.518

```

# Define a function to automate summary statistics and effect size for multiple variables
compute_summary <- function(data, var, group_var = "Condition", group1 = 1, group2 = 2) {
  df <- data %>% select(all_of(c(var, group_var))) %>% filter(!is.na(.data[[var]]))

  group1_vals <- df %>% filter(.data[[group_var]] == group1) %>% pull(.data[[var]])
  group2_vals <- df %>% filter(.data[[group_var]] == group2) %>% pull(.data[[var]])

  # Calculate basic statistics
  n1 <- length(group1_vals)
  n2 <- length(group2_vals)
  mean1 <- mean(group1_vals)
  mean2 <- mean(group2_vals)
  sd1 <- sd(group1_vals)
  sd2 <- sd(group2_vals)

  # Compute Cohen's d with 95% CI
  d_result <- cohen.d(group2_vals, group1_vals, pooled = TRUE) # control - intervention
  d <- as.numeric(d_result$estimate)
  ci_low <- d_result$conf.int[1]
  ci_high <- d_result$conf.int[2]

  # Return results as a dataframe row
  return(data.frame(
    variable = var,
    n1 = n1, mean1 = round(mean1, 2), sd1 = round(sd1, 2),
    n2 = n2, mean2 = round(mean2, 2), sd2 = round(sd2, 2),
    d = round(d, 2),
    ci = sprintf("【%.2f, %.2f】", ci_low, ci_high)
  ))
}

# List of outcome variables to summarize
outcomes <- c(
  "Intrusions_diary_w1_total", "Intrusions_diary_w5_total",
  "IES_R_intrusion_followup1", "IES_R_avoidance_followup1",
  "HADS_A_followup1", "HADS_D_followup1", "HADS_total_followup1",

```

```

"SRHR_followup1", "SRSR_total_followup1", "Intrusions_diary_w1_distress",
"Intrusions_diary_w1_vividness", "Concentrationdisruption_followup1",
"IES_R_intrusion_followup2", "IES_R_avoidance_followup2",
"HADS_A_followup2", "HADS_D_followup2", "HADS_total_followup2",
"SRHR_followup2", "SRSR_total_followup2", "Intrusions_diary_w5_distress",
"Intrusions_diary_w5_vividness", "Concentrationdisruption_followup2",
"IES_R_intrusion_followup3", "IES_R_avoidance_followup3",
"HADS_A_followup3", "HADS_D_followup3", "HADS_total_followup3",
"SRHR_followup3", "SRSR_total_followup3", "Concentrationdisruption_followup3",
"IES_R_intrusion_followup4", "IES_R_avoidance_followup4",
"HADS_A_followup4", "HADS_D_followup4", "HADS_total_followup4",
"SRHR_followup4", "SRSR_total_followup4", "Concentrationdisruption_followup4"
)

# Apply the summary function to each outcome variable and compile results
results <- do.call(rbind, lapply(outcomes, function(var) compute_summary(data, var)))
kable(results, caption = "Summary Statistics for Multiple Outcomes")

```

Table 4: Summary Statistics for Multiple Outcomes

variable	n1	mean1	sd1	n2	mean2	sd2	d	ci
Intrusions_diary_w1_total	20	3.85	8.57	19	7.37	7.88	0.43	[-0.23, 1.08]
Intrusions_diary_w5_total	18	0.28	0.57	18	2.89	6.43	0.57	[-0.12, 1.26]
IES_R_intrusion_followup1	16	4.12	4.13	17	8.53	6.23	0.83	[0.09, 1.57]
IES_R_avoidance_followup1	16	2.38	2.42	17	8.06	7.85	0.97	[0.22, 1.72]
HADS_A_followup1	16	3.25	2.89	17	4.71	3.64	0.44	[-0.28, 1.16]
HADS_D_followup1	16	1.62	1.89	17	3.06	3.36	0.52	[-0.20, 1.24]
HADS_total_followup1	16	4.88	4.62	17	7.76	6.81	0.49	[-0.23, 1.22]
SRHR_followup1	16	5.62	1.36	16	5.12	1.54	-0.34	[-1.07, 0.38]
SRSR_total_followup1	16	5.81	2.17	16	4.88	2.53	-0.40	[-1.13, 0.33]
Intrusions_diary_w1_distress	13	2.00	2.55	16	3.38	3.42	0.45	[-0.33, 1.22]
Intrusions_diary_w1_vividness	13	2.85	3.44	16	4.50	3.46	0.48	[-0.30, 1.26]
Concentrationdisruption_followup1	16	1.38	0.72	16	2.39	1.65	0.80	[0.05, 1.55]
IES_R_intrusion_followup2	16	1.88	2.39	18	3.78	3.72	0.60	[-0.11, 1.32]
IES_R_avoidance_followup2	16	1.94	4.55	18	3.39	4.27	0.33	[-0.38, 1.03]
HADS_A_followup2	16	3.19	3.02	18	3.83	3.07	0.21	[-0.49, 0.91]
HADS_D_followup2	16	2.12	3.24	18	2.72	3.63	0.17	[-0.53, 0.87]
HADS_total_followup2	16	5.31	5.76	18	6.56	6.06	0.21	[-0.49, 0.91]
SRHR_followup2	16	5.06	1.84	18	5.00	1.28	-0.04	[-0.74, 0.66]
SRSR_total_followup2	16	6.69	1.40	18	5.67	2.68	-0.47	[-1.18, 0.24]
Intrusions_diary_w5_distress	13	1.69	3.45	16	1.25	2.24	-0.16	[-0.92, 0.61]
Intrusions_diary_w5_vividness	13	1.08	2.29	16	1.88	2.53	0.33	[-0.44, 1.10]
Concentrationdisruption_followup2	15	1.27	1.03	18	1.83	1.50	0.43	[-0.29, 1.15]
IES_R_intrusion_followup3	15	1.33	2.13	18	2.33	2.83	0.39	[-0.33, 1.11]
IES_R_avoidance_followup3	15	0.80	1.26	18	1.61	2.85	0.36	[-0.36, 1.07]
HADS_A_followup3	14	2.36	2.90	18	3.22	3.15	0.28	[-0.45, 1.02]
HADS_D_followup3	14	1.43	1.91	18	2.17	2.50	0.33	[-0.41, 1.06]
HADS_total_followup3	14	3.79	4.66	18	5.39	5.40	0.31	[-0.42, 1.05]
SRHR_followup3	14	5.57	1.34	18	5.44	0.86	-0.12	[-0.84, 0.61]
SRSR_total_followup3	14	7.21	1.19	18	6.28	2.27	-0.50	[-1.24, 0.24]
Concentrationdisruption_followup3	14	1.43	1.60	18	1.56	1.15	0.09	[-0.64, 0.82]
IES_R_intrusion_followup4	12	1.33	3.47	16	0.75	1.13	-0.24	[-1.03, 0.55]

variable	n1	mean1	sd1	n2	mean2	sd2	d	ci
IES_R_avoidance_followup4	12	0.42	0.90	15	0.93	1.33	0.44	[-0.36, 1.25]
HADS_A_followup4	12	2.08	2.50	16	3.44	3.22	0.46	[-0.33, 1.26]
HADS_D_followup4	12	1.08	1.68	15	1.87	1.81	0.45	[-0.36, 1.25]
HADS_total_followup4	12	3.17	4.02	15	5.53	4.66	0.54	[-0.27, 1.35]
SRHR_followup4	12	5.83	1.34	16	5.38	1.36	-0.34	[-1.13, 0.45]
SRSR_total_followup4	12	7.25	0.87	16	5.12	2.66	-1.01	[-1.85, -0.18]
Concentrationdisruption_followup4	12	1.58	1.73	15	1.27	0.70	-0.25	[-1.05, 0.55]

Table 4 in this report replicates Table 3 from the original study, presenting the primary, secondary, and other pre-specified outcome measures by condition. The structure and content of the table were matched as closely as possible to the original publication to ensure comparability of results.