Adressing reviewers comments

```r
## Load packages
library(data.table)

## Load data
load("data/mindfulness.RData")

## Filtering study data
dat <- mindfulness[id_event_name == "Basal", -2L]

## Add equilibrium category
dat[, sppb_equil_cat := sppb_equil_bip + sppb_equil_semitandem + sppb_equil_tandem]
```

To-do

- ☒ "Run separate correlations on an only female sample and add to the manuscript to identify exactly how males influence the results".
- ☒ "The correlations for each individual SPPB assessment results (i.e., time of 4-meter walk, time of repeated chair rise, etc.) should be reported".

Body composition and autonomic response

Result 1: more body fat percentage was linked to a lower SNS response to TSMT

```r
## Combined data
dat[, cor.test(cc_grasa_total_porcentaje, hrv_sns_peri) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
```

```
      })]
## Separate analysis
dat[j = cor.test(cc_grasa_total_porcentaje, hrv_sns_peri) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: r = -0.252, p = 0.030 *
- Males: r = 0.174, p = 0.589
- Females: r = -0.356, p = 0.005 **

Result 2: more body fat percentage was linked to a lower SI response to TSMT

```
## Combined data
dat[, cor.test(cc_grasa_total_porcentaje, hrv_stress_peri) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(cc_grasa_total_porcentaje, hrv_stress_peri) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: r = -0.258, p = 0.027 *
- Males: r = 0.204, p = 0.525
- Females: r = -0.316, p = 0.012 *

Result 3: body fat percentage was positively correlated with RMSSD during exercise

```
## Combined data
dat[, cor.test(cc_grasa_total_porcentaje, hrv_rmssd_peri) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
```

```r
dat[j = cor.test(cc_grasa_total_porcentaje, hrv_rmssd_peri) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: r = 0.253, p = 0.029 *
- Males: r = -0.259, p = 0.416
- Females: r = 0.246, p = 0.054 .

Result 4: body fat percentage was positively correlated with SDNN during exercise

```r
## Combined data
dat[, cor.test(cc_grasa_total_porcentaje, hrv_sdnn_peri) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(cc_grasa_total_porcentaje, hrv_sdnn_peri) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: r = 0.269, p = 0.020 *
- Males: r = -0.058, p = 0.859
- Females: r = 0.247, p = 0.053 .

Body composition and physical fitness

Results 1: greater SPPB score witb lower body fat

Note: Using Spearman's rho as the constituents of the SPPB domains are ordinal (levels from 1 to 4) and body fat percentage is continuous.

sppb_equil_cat

```
## Combined data
dat[, cor.test(cc_grasa_total_porcentaje, sppb_equil_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(cc_grasa_total_porcentaje, sppb_equil_cat, method = "spearman", exact = F)
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = 0.052, p = 0.656
- Males: rho = 0.044, p = 0.893
- Females: rho = 0.017, p = 0.896

sppb_sts_cat

```
## Combined data
dat[, cor.test(cc_grasa_total_porcentaje, sppb_sts_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(cc_grasa_total_porcentaje, sppb_sts_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = -0.279, p = 0.013 *
- Males: rho = -0.304, p = 0.337
- Females: rho = -0.347, p = 0.004 **

sppb_velocidad_cat

```
## Combined data
dat[, cor.test(cc_grasa_total_porcentaje, sppb_velocidad_cat, method = "spearman", exact = F
      with({
```

```
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(cc_grasa_total_porcentaje, sppb_velocidad_cat, method = "spearman", exact =
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = -0.261, p = 0.021 *
- Males: rho = 0.172, p = 0.593
- Females: rho = -0.309, p = 0.012 *

Results 2: greater SPPB score with lower BMI

Note: Using Spearman's rho as the constituents of the SPPB domains are ordinal (levels from 1 to 4) and BMI is continuous.

sppb_equil_cat

```
## Combined data
dat[, cor.test(cc_imc, sppb_equil_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(cc_imc, sppb_equil_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = -0.083, p = 0.474
- Males: rho = 0.1, p = 0.77
- Females: rho = -0.109, p = 0.39

sppb_sts_cat

```
## Combined data
dat[, cor.test(cc_imc, sppb_sts_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(cc_imc, sppb_sts_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = -0.325, p = 0.004 **
- Males: rho = -0.294, p = 0.38
- Females: rho = -0.324, p = 0.008 **

sppb_velocidad_cat

```
## Combined data
dat[, cor.test(cc_imc, sppb_velocidad_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(cc_imc, sppb_velocidad_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = -0.305, p = 0.007 **
- Males: rho = -0.108, p = 0.752
- Females: rho = -0.318, p = 0.009 **

Results 3: greater TMST steps with lower body fat percentage

```
## Combined data
dat[, cor.test(cc_grasa_total_porcentaje, tm_pasos) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
```

```
      })]
## Separate analysis
dat[j = cor.test(cc_grasa_total_porcentaje, tm_pasos) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: r = -0.279, p = 0.013
- Males: r = 0.085, p = 0.792
- Females: r = -0.311, p = 0.01

Results 4: greater TMST steps with lower bodyweight

```
## Combined data
dat[, cor.test(cc_peso_corporal, tm_pasos) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(cc_peso_corporal, tm_pasos) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: r = -0.232, p = 0.041 *
- Males: r = -0.198, p = 0.559
- Females: r = -0.275, p = 0.024 *

Results 4: greater TMST steps with lower body fat

```
## Combined data
dat[, cor.test(cc_grasa_total_porcentaje, tm_pasos) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(cc_grasa_total_porcentaje, tm_pasos) |>
```

```
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: r = -0.279, p = 0.013 *
- Males: r = 0.085, p = 0.792
- Females: r = -0.311, p = 0.01 **

Null result 6: Total SPPB and total muscle mass

Note: Using Spearman's rho as the constituents of the SPPB domains are ordinal (levels from 1 to 4) and total muscle mass is continuous.

sppb_equil_cat

```
## Combined data
dat[, cor.test(cc_masa_muscular_total, sppb_equil_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(cc_masa_muscular_total, sppb_equil_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = 0.016, p = 0.888
- Males: rho = 0.044, p = 0.893
- Females: rho = 0.049, p = 0.699

sppb_sts_cat

```
## Combined data
dat[, cor.test(cc_masa_muscular_total, sppb_sts_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
```

```
dat[j = cor.test(cc_masa_muscular_total, sppb_sts_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = -0.255, p = 0.024 *
- Males: rho = -0.126, p = 0.697
- Females: rho = -0.327, p = 0.007 **

sppb_velocidad_cat

```
## Combined data
dat[, cor.test(cc_masa_muscular_total, sppb_velocidad_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(cc_masa_muscular_total, sppb_velocidad_cat, method = "spearman", exact = F)
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = -0.136, p = 0.236
- Males: rho = 0.215, p = 0.502
- Females: rho = -0.254, p = 0.039 *

Null result 7: Total number of steps in TMST and total muscle mass

```
## Combined data
dat[, cor.test(cc_masa_muscular_total, tm_pasos) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(cc_masa_muscular_total, tm_pasos) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
```

```
      }),
    by = sd_sexo]
```

- Combined data: r = -0.07, p = 0.541
- Males: r = -0.258, p = 0.418
- Females: r = -0.237, p = 0.054 .

Physical fitness and cardiac autonomic response to exercise

However, this appears to be accompanied by a proportional decrease in the parasympathetic drive during exercise with increasing levels of physical fitness displayed in the SPPB, which was denoted by the latter's inverse correlation with the PNS index during (r = -0.375, p = 0.001) and after exercise (r = -0.229, p = 0.049), in addition to RMSSD during exercise (r = -0.294, p = 0.010). See Figure 4.

Results 1: Greater SPPB with greater SNS index peri

Note: Using Spearman's rho as the constituents of the SPPB domains are ordinal (levels from 1 to 4) and SNS index is continuous.

sppb_equil_cat

```
## Combined data
dat[, cor.test(hrv_sns_peri, sppb_equil_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(hrv_sns_peri, sppb_equil_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = 0.082, p = 0.492
- Males: rho = 0, p = 1
- Females: rho = 0.121, p = 0.356

sppb_sts_cat

```
## Combined data
dat[, cor.test(hrv_sns_peri, sppb_sts_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(hrv_sns_peri, sppb_sts_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = 0.345, p = 0.003 **
- Males: rho = 0.607, p = 0.028 *
- Females: rho = 0.294, p = 0.021 *

sppb_velocidad_cat

```
## Combined data
dat[, cor.test(hrv_sns_peri, sppb_velocidad_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(hrv_sns_peri, sppb_velocidad_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = 0.098, p = 0.407
- Males: rho = -0.137, p = 0.654
- Females: rho = 0.124, p = 0.341

Results 2: Greater TMST steps with greater SNS index peri

```
## Combined data
dat[, cor.test(hrv_sns_peri, tm_pasos) |>
```

```
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(hrv_sns_peri, tm_pasos) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: r = 0.265, p = 0.022 *
- Males: r = -0.211, p = 0.51
- Females: r = 0.326, p = 0.01 *

Results 3: Greater SPPB with greater mean HR peri

Note: Using Spearman's rho as the constituents of the SPPB domains are ordinal (levels from 1 to 4) and mean HR is continuous.

sppb_equil_cat

```
## Combined data
dat[, cor.test(hrv_mean_hr_peri, sppb_equil_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(hrv_mean_hr_peri, sppb_equil_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = 0.128, p = 0.28
- Males: rho = 0, p = 1
- Females: rho = 0.143, p = 0.276

sppb_sts_cat

```
## Combined data
dat[, cor.test(hrv_mean_hr_peri, sppb_sts_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(hrv_mean_hr_peri, sppb_sts_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = 0.387, p = 0.001 **
- Males: rho = 0.558, p = 0.047 *
- Females: rho = 0.334, p = 0.009 **

sppb_velocidad_cat

```
## Combined data
dat[, cor.test(hrv_mean_hr_peri, sppb_velocidad_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(hrv_mean_hr_peri, sppb_velocidad_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = 0.123, p = 0.297
- Males: rho = -0.212, p = 0.486
- Females: rho = 0.213, p = 0.100

Results 4: Greater TMST steps with greater mean HR peri

```
## Combined data
dat[, cor.test(hrv_mean_hr_peri, tm_pasos) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
```

```
      })]
## Separate analysis
dat[j = cor.test(hrv_mean_hr_peri, tm_pasos) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: r = 0.338, p = 0.003 **
- Males: r = -0.17, p = 0.598
- Females: r = 0.414, p = 0.001 **

Results 5: Greater SPPB with less mean R-R interval peri

Note: Using Spearman's rho as the constituents of the SPPB domains are ordinal (levels from 1 to 4) and mean R-R interval is continuous.

sppb_equil_cat

```
## Combined data
dat[, cor.test(hrv_mean_rr_peri, sppb_equil_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(hrv_mean_rr_peri, sppb_equil_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = -0.125, p = 0.291
- Males: rho = 0, p = 1
- Females: rho = -0.141, p = 0.284

sppb_sts_cat

```
## Combined data
dat[, cor.test(hrv_mean_rr_peri, sppb_sts_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(hrv_mean_rr_peri, sppb_sts_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = -0.394, p = 0.001 **
- Males: rho = -0.558, p = 0.047 *
- Females: rho = -0.338, p = 0.008 **

sppb_velocidad_cat

```
## Combined data
dat[, cor.test(hrv_mean_rr_peri, sppb_velocidad_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(hrv_mean_rr_peri, sppb_velocidad_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = -0.125, p = 0.29
- Males: rho = 0.256, p = 0.398
- Females: rho = -0.214, p = 0.098

Results 6: Greater TMST steps with less mean R-R interval peri

```
## Combined data
dat[, cor.test(hrv_mean_rr_peri, tm_pasos) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
```

```
      })]
## Separate analysis
dat[j = cor.test(hrv_mean_rr_peri, tm_pasos) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: r = -0.311, p = 0.007 **
- Males: r = 0.16, p = 0.62
- Females: r = -0.398, p = 0.001 **

Results 7: Greater TMST with less RMSSD peri

```
## Combined data
dat[, cor.test(hrv_rmssd_peri, tm_pasos) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(hrv_rmssd_peri, tm_pasos) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: r = -0.285, p = 0.014 *
- Males: r = -0.08, p = 0.805
- Females: r = -0.288, p = 0.023 *

Results 8: Greater TMST with less PNS index peri

```
## Combined data
dat[, cor.test(hrv_pns_peri, tm_pasos) |>
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(hrv_pns_peri, tm_pasos) |>
```

```
      with({
        paste0("r = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: r = -0.344, p = 0.003 **
- Males: r = 0.115, p = 0.722
- Females: r = -0.41, p = 0.001 **

Results 9: Greater SPPB with less PNS index peri

Note: Using Spearman's rho as the constituents of the SPPB domains are ordinal (levels from 1 to 4) and PNS index is continuous.

sppb_equil_cat

```
## Combined data
dat[, cor.test(hrv_pns_peri, sppb_equil_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(hrv_pns_peri, sppb_equil_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = -0.109, p = 0.36
- Males: rho = 0.077, p = 0.802
- Females: rho = -0.154, p = 0.24

sppb_sts_cat

```
## Combined data
dat[, cor.test(hrv_pns_peri, sppb_sts_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
```

```
dat[j = cor.test(hrv_pns_peri, sppb_sts_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = -0.407, p < 0.001 ***
- Males: rho = -0.518, p = 0.07
- Females: rho = -0.363, p = 0.004 **

sppb_velocidad_cat

```
## Combined data
dat[, cor.test(hrv_pns_peri, sppb_velocidad_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(hrv_pns_peri, sppb_velocidad_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = -0.108, p = 0.362
- Males: rho = 0.216, p = 0.48
- Females: rho = -0.179, p = 0.168

Results 10: Greater SPPB with less PNS index post index is continuous

Note: Using Spearman's rho as the constituents of the SPPB domains are ordinal (levels from 1 to 4) and PNS index is continuous.

sppb_equil_cat

```
## Combined data
dat[, cor.test(hrv_pns_post, sppb_equil_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
```

```
## Separate analysis
dat[j = cor.test(hrv_pns_post, sppb_equil_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = -0.226, p = 0.054
- Males: rho = -0.077, p = 0.802
- Females: rho = -0.259, p = 0.046 *

sppb_sts_cat

```
## Combined data
dat[, cor.test(hrv_pns_post, sppb_sts_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(hrv_pns_post, sppb_sts_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = -0.165, p = 0.161
- Males: rho = -0.57, p = 0.042 *
- Females: rho = -0.087, p = 0.506

sppb_velocidad_cat

```
## Combined data
dat[, cor.test(hrv_pns_post, sppb_velocidad_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(hrv_pns_post, sppb_velocidad_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
```

```
      }),
    by = sd_sexo]
```

- Combined data: rho = -0.107, p = 0.365
- Males: rho = 0.007, p = 0.981
- Females: rho = -0.135, p = 0.299

Results 11: Greater SPPB with less RMSSD peri

Note: Using Spearman's rho as the constituents of the SPPB domains are ordinal (levels from 1 to 4) and RMSSD is continuous.

sppb_equil_cat

```
## Combined data
dat[, cor.test(hrv_rmssd_peri, sppb_equil_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(hrv_rmssd_peri, sppb_equil_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = -0.085, p = 0.476
- Males: rho = 0.155, p = 0.614
- Females: rho = -0.179, p = 0.171

sppb_sts_cat

```
## Combined data
dat[, cor.test(hrv_rmssd_peri, sppb_sts_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(hrv_rmssd_peri, sppb_sts_cat, method = "spearman", exact = F) |>
      with({
```

```
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = -0.327, p = 0.005 **
- Males: rho = -0.419, p = 0.154
- Females: rho = -0.333, p = 0.009 **

sppb_velocidad_cat

```
## Combined data
dat[, cor.test(hrv_rmssd_peri, sppb_velocidad_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      })]
## Separate analysis
dat[j = cor.test(hrv_rmssd_peri, sppb_velocidad_cat, method = "spearman", exact = F) |>
      with({
        paste0("rho = ", round(estimate,3), ", p = ", round(p.value,3))
      }),
    by = sd_sexo]
```

- Combined data: rho = -0.051, p = 0.669
- Males: rho = 0.283, p = 0.349
- Females: rho = -0.104, p = 0.426