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> ## The Causal Impact of Pandemic Fatigue on People's Intentions to Adhere to Recommended Health-Protective Behaviors - Experiment ##

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> # Cronbach´s alpha - Behavioral intentions

> psych::alpha(data.frame(E[c("PHYSICAL\_DISTANCING", "MASK\_WEARING", "HYGIENE", "INFORMATION\_SEEKING")]), check.keys=TRUE)

Reliability analysis

Call: psych::alpha(x = data.frame(E[c("PHYSICAL\_DISTANCING", "MASK\_WEARING",

"HYGIENE", "INFORMATION\_SEEKING")]), check.keys = TRUE)

raw\_alpha std.alpha G6(smc) average\_r S/N ase mean sd median\_r

0.76 0.76 0.71 0.44 3.2 0.0098 5.8 1.2 0.45

95% confidence boundaries

lower alpha upper

Feldt 0.74 0.76 0.78

Duhachek 0.74 0.76 0.78

Reliability if an item is dropped:

raw\_alpha std.alpha G6(smc) average\_r S/N alpha se var.r med.r

PHYSICAL\_DISTANCING 0.65 0.66 0.57 0.39 2.0 0.015 0.0019 0.37

MASK\_WEARING 0.72 0.73 0.64 0.47 2.7 0.012 0.0019 0.45

HYGIENE 0.72 0.72 0.65 0.47 2.6 0.012 0.0070 0.51

INFORMATION\_SEEKING 0.70 0.70 0.62 0.44 2.4 0.013 0.0049 0.44

Item statistics

n raw.r std.r r.cor r.drop mean sd

PHYSICAL\_DISTANCING 1584 0.81 0.81 0.73 0.64 6.0 1.5

MASK\_WEARING 1584 0.74 0.74 0.60 0.51 6.1 1.5

HYGIENE 1584 0.71 0.74 0.60 0.52 6.1 1.3

INFORMATION\_SEEKING 1584 0.79 0.77 0.65 0.56 5.1 1.7

Non missing response frequency for each item

1 2 3 4 5 6 7 miss

PHYSICAL\_DISTANCING 0.02 0.03 0.03 0.06 0.11 0.23 0.51 0

MASK\_WEARING 0.04 0.02 0.02 0.05 0.08 0.16 0.64 0

HYGIENE 0.01 0.02 0.03 0.07 0.13 0.21 0.54 0

INFORMATION\_SEEKING 0.05 0.05 0.08 0.14 0.20 0.20 0.28 0

>

> # Factor condition variable

> E$CONDITION[E$CONDITION==1] <-"Control"

> E$CONDITION[E$CONDITION==2] <-"High Pandemic Fatigue"

> E$CONDITION[E$CONDITION==3] <-"Low Pandemic Fatigue"

>

> # Manipulation check - High pandemic fatigue vs low pandemic fatigue

> E$CONDITION <- factor(E$CONDITION, levels = c("High Pandemic Fatigue", "Low Pandemic Fatigue", "Control"))

> report(t.test(E$PANDEMIC\_FATIGUE[E$CONDITION != "Control"] ~ E$CONDITION[E$CONDITION != "Control"]))

Effect sizes were labelled following Cohen's (1988) recommendations.

The Welch Two Sample t-test testing the difference of E$PANDEMIC\_FATIGUE[E$CONDITION !=

"Control"] by E$CONDITION[E$CONDITION != "Control"] (mean in group High Pandemic Fatigue =

3.55, mean in group Low Pandemic Fatigue = 3.08) suggests that the effect is positive,

statistically significant, and small (difference = 0.47, 95% CI [0.30, 0.64], t(1017.76) =

5.43, p < .001; Cohen's d = 0.34, 95% CI [0.22, 0.46])

> cohen.d(E$PANDEMIC\_FATIGUE[E$CONDITION != "Control"], E$CONDITION[E$CONDITION != "Control"])

Call: cohen.d(x = E$PANDEMIC\_FATIGUE[E$CONDITION != "Control"], group = E$CONDITION[E$CONDITION !=

"Control"])

Cohen d statistic of difference between two means

lower effect upper

[1,] -0.46 -0.34 -0.22

Multivariate (Mahalanobis) distance between groups

[1] 0.34

r equivalent of difference between two means

data

-0.17

>

> # Manipulation check - Low pandemic fatigue vs control

> E$CONDITION <- factor(E$CONDITION, levels = c("Low Pandemic Fatigue", "Control", "High Pandemic Fatigue"))

> report(t.test(E$PANDEMIC\_FATIGUE[E$CONDITION != "High Pandemic Fatigue"] ~ E$CONDITION[E$CONDITION != "High Pandemic Fatigue"]))

In the report() function, for htest objects, you can try providing the data argument

manually, e.g., report(x, data = data).

Effect sizes were labelled following Cohen's (1988) recommendations.

The Welch Two Sample t-test testing the difference of E$PANDEMIC\_FATIGUE[E$CONDITION != "High

Pandemic Fatigue"] by E$CONDITION[E$CONDITION != "High Pandemic Fatigue"] (mean in group Low

Pandemic Fatigue = 3.08, mean in group Control = 3.29) suggests that the effect is negative,

statistically significant, and very small (difference = -0.21, 95% CI [-0.38, -0.05],

t(1079.30) = -2.49, p = 0.013; Cohen's d = -0.15, 95% CI [-0.27, -0.03])

警告信息:

Unable to retrieve data from htest object.

Returning an approximate effect size using t\_to\_d().

> cohen.d(E$PANDEMIC\_FATIGUE[E$CONDITION != "High Pandemic Fatigue"], E$CONDITION[E$CONDITION != "High Pandemic Fatigue"])

Call: cohen.d(x = E$PANDEMIC\_FATIGUE[E$CONDITION != "High Pandemic Fatigue"],

group = E$CONDITION[E$CONDITION != "High Pandemic Fatigue"])

Cohen d statistic of difference between two means

lower effect upper

[1,] 0.03 0.15 0.27

Multivariate (Mahalanobis) distance between groups

[1] 0.15

r equivalent of difference between two means

data

0.08

>

> # Manipulation check - High pandemic fatigue vs control

> E$CONDITION <- factor(E$CONDITION, levels = c( "High Pandemic Fatigue", "Control", "Low Pandemic Fatigue"))

> report(t.test(E$PANDEMIC\_FATIGUE[E$CONDITION != "Low Pandemic Fatigue"] ~ E$CONDITION[E$CONDITION != "Low Pandemic Fatigue"]))

In the report() function, for htest objects, you can try providing the data argument

manually, e.g., report(x, data = data).

Effect sizes were labelled following Cohen's (1988) recommendations.

The Welch Two Sample t-test testing the difference of E$PANDEMIC\_FATIGUE[E$CONDITION != "Low

Pandemic Fatigue"] by E$CONDITION[E$CONDITION != "Low Pandemic Fatigue"] (mean in group High

Pandemic Fatigue = 3.55, mean in group Control = 3.29) suggests that the effect is positive,

statistically significant, and very small (difference = 0.26, 95% CI [0.09, 0.43], t(1044.55) =

2.92, p = 0.004; Cohen's d = 0.18, 95% CI [0.06, 0.30])

警告信息:

Unable to retrieve data from htest object.

Returning an approximate effect size using t\_to\_d().

> cohen.d(E$PANDEMIC\_FATIGUE[E$CONDITION != "Low Pandemic Fatigue"], E$CONDITION[E$CONDITION != "Low Pandemic Fatigue"])

Call: cohen.d(x = E$PANDEMIC\_FATIGUE[E$CONDITION != "Low Pandemic Fatigue"],

group = E$CONDITION[E$CONDITION != "Low Pandemic Fatigue"])

Cohen d statistic of difference between two means

lower effect upper

[1,] -0.3 -0.18 -0.06

Multivariate (Mahalanobis) distance between groups

[1] 0.18

r equivalent of difference between two means

data

-0.09

>

> # Bonferroni correction manipulation check

> P\_MAN <- c(0.00000007041, 0.01292, 0.003523)

> p.adjust(P\_MAN, method = "bonferroni")

[1] 2.1123e-07 3.8760e-02 1.0569e-02

>

> # Hypothesis testing - High pandemic fatigue vs low pandemic fatigue

> E$CONDITION <- factor(E$CONDITION, levels = c("Low Pandemic Fatigue", "Control", "High Pandemic Fatigue"))

> report(t.test(E$BEHAVIORAL\_INTENTIONS[E$CONDITION != "Control"] ~ E$CONDITION[E$CONDITION != "Control"]))

Effect sizes were labelled following Cohen's (1988) recommendations.

The Welch Two Sample t-test testing the difference of E$BEHAVIORAL\_INTENTIONS[E$CONDITION !=

"Control"] by E$CONDITION[E$CONDITION != "Control"] (mean in group Low Pandemic Fatigue = 5.94,

mean in group High Pandemic Fatigue = 5.65) suggests that the effect is positive, statistically

significant, and small (difference = 0.30, 95% CI [0.16, 0.44], t(1019.86) = 4.13, p < .001;

Cohen's d = 0.26, 95% CI [0.13, 0.38])

> cohen.d(E$BEHAVIORAL\_INTENTIONS[E$CONDITION != "Control"], E$CONDITION[E$CONDITION != "Control"])

Call: cohen.d(x = E$BEHAVIORAL\_INTENTIONS[E$CONDITION != "Control"],

group = E$CONDITION[E$CONDITION != "Control"])

Cohen d statistic of difference between two means

lower effect upper

[1,] -0.38 -0.26 -0.14

Multivariate (Mahalanobis) distance between groups

[1] 0.26

r equivalent of difference between two means

data

-0.13

>

> # Hypothesis testing - High pandemic fatigue vs control

> E$CONDITION <- factor(E$CONDITION, levels = c( "Control", "Low Pandemic Fatigue", "High Pandemic Fatigue"))

> report(t.test(E$BEHAVIORAL\_INTENTIONS[E$CONDITION != "Low Pandemic Fatigue"] ~ E$CONDITION[E$CONDITION != "Low Pandemic Fatigue"]))

In the report() function, for htest objects, you can try providing the data argument

manually, e.g., report(x, data = data).

Effect sizes were labelled following Cohen's (1988) recommendations.

The Welch Two Sample t-test testing the difference of E$BEHAVIORAL\_INTENTIONS[E$CONDITION !=

"Low Pandemic Fatigue"] by E$CONDITION[E$CONDITION != "Low Pandemic Fatigue"] (mean in group

Control = 5.86, mean in group High Pandemic Fatigue = 5.65) suggests that the effect is

positive, statistically significant, and very small (difference = 0.21, 95% CI [0.07, 0.35],

t(1031.30) = 2.98, p = 0.003; Cohen's d = 0.19, 95% CI [0.06, 0.31])

警告信息:

Unable to retrieve data from htest object.

Returning an approximate effect size using t\_to\_d().

> cohen.d(E$BEHAVIORAL\_INTENTIONS[E$CONDITION != "Low Pandemic Fatigue"], E$CONDITION[E$CONDITION != "Low Pandemic Fatigue"])

Call: cohen.d(x = E$BEHAVIORAL\_INTENTIONS[E$CONDITION != "Low Pandemic Fatigue"],

group = E$CONDITION[E$CONDITION != "Low Pandemic Fatigue"])

Cohen d statistic of difference between two means

lower effect upper

[1,] -0.31 -0.18 -0.06

Multivariate (Mahalanobis) distance between groups

[1] 0.18

r equivalent of difference between two means

data

-0.09

>

> # Hypothesis testing - Low pandemic fatigue vs control

> E$CONDITION <- factor(E$CONDITION, levels = c( "Low Pandemic Fatigue", "Control", "High Pandemic Fatigue"))

> report(t.test(E$BEHAVIORAL\_INTENTIONS[E$CONDITION != "High Pandemic Fatigue"] ~ E$CONDITION[E$CONDITION != "High Pandemic Fatigue"]))

In the report() function, for htest objects, you can try providing the data argument

manually, e.g., report(x, data = data).

Effect sizes were labelled following Cohen's (1988) recommendations.

The Welch Two Sample t-test testing the difference of E$BEHAVIORAL\_INTENTIONS[E$CONDITION !=

"High Pandemic Fatigue"] by E$CONDITION[E$CONDITION != "High Pandemic Fatigue"] (mean in group

Low Pandemic Fatigue = 5.94, mean in group Control = 5.86) suggests that the effect is

positive, statistically not significant, and very small (difference = 0.09, 95% CI [-0.05,

0.22], t(1078.10) = 1.24, p = 0.213; Cohen's d = 0.08, 95% CI [-0.04, 0.20])

警告信息:

Unable to retrieve data from htest object.

Returning an approximate effect size using t\_to\_d().

> cohen.d(E$BEHAVIORAL\_INTENTIONS[E$CONDITION != "High Pandemic Fatigue"], E$CONDITION[E$CONDITION != "High Pandemic Fatigue"])

Call: cohen.d(x = E$BEHAVIORAL\_INTENTIONS[E$CONDITION != "High Pandemic Fatigue"],

group = E$CONDITION[E$CONDITION != "High Pandemic Fatigue"])

Cohen d statistic of difference between two means

lower effect upper

[1,] -0.2 -0.08 0.04

Multivariate (Mahalanobis) distance between groups

[1] 0.076

r equivalent of difference between two means

data

-0.04

>

> # Bonferroni correction hypothesis testing

> P\_EXP <- c(0.00003867, 0.2134, 0.002983)

> p.adjust(P\_EXP, method = "bonferroni")

[1] 0.00011601 0.64020000 0.00894900