单个因子解决方案# One factor solution

Factor Analysis using method = minres

Call: fa(r = POL$rho, nfactors = 1, n.obs = 923, rotate = "oblimin",

fm = "minres")

Standardized loadings (pattern matrix) based upon correlation matrix

MR1 h2 u2 com

PANDEMIC\_FATIGUE\_1 0.78 0.61 0.39 1

PANDEMIC\_FATIGUE\_2 0.70 0.49 0.51 1

PANDEMIC\_FATIGUE\_3 0.67 0.45 0.55 1

PANDEMIC\_FATIGUE\_4 0.77 0.60 0.40 1

PANDEMIC\_FATIGUE\_5 0.81 0.66 0.34 1

PANDEMIC\_FATIGUE\_6 0.75 0.57 0.43 1

PANDEMIC\_FATIGUE\_7 0.73 0.54 0.46 1

PANDEMIC\_FATIGUE\_8 0.69 0.48 0.52 1

PANDEMIC\_FATIGUE\_9 0.69 0.47 0.53 1

PANDEMIC\_FATIGUE\_10 0.66 0.43 0.57 1

MR1

SS loadings 5.30

Proportion Var 0.53

Mean item complexity = 1

Test of the hypothesis that 1 factor is sufficient.

df null model = 45 with the objective function = 5.93 with Chi Square = 5442.45

df of the model are 35 and the objective function was 0.8

The root mean square of the residuals (RMSR) is 0.07

The df corrected root mean square of the residuals is 0.08

The harmonic n.obs is 923 with the empirical chi square 399.77 with prob < 1.8e-63

The total n.obs was 923 with Likelihood Chi Square = 736.23 with prob < 3.6e-132

Tucker Lewis Index of factoring reliability = 0.833

RMSEA index = 0.147 and the 90 % confidence intervals are 0.138 0.157

BIC = 497.26

Fit based upon off diagonal values = 0.98

Measures of factor score adequacy

MR1

Correlation of (regression) scores with factors 0.96

Multiple R square of scores with factors 0.92

Minimum correlation of possible factor scores 0.85

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> # Two factor solution

> fa(POL$rho, n.obs = 923, nfactors = 2, fm="minres", rotate="oblimin")

Factor Analysis using method = minres

Call: fa(r = POL$rho, nfactors = 2, n.obs = 923, rotate = "oblimin",

fm = "minres")

Standardized loadings (pattern matrix) based upon correlation matrix

MR1 MR2 h2 u2 com

PANDEMIC\_FATIGUE\_1 0.69 0.13 0.61 0.39 1.1

PANDEMIC\_FATIGUE\_2 0.66 0.07 0.50 0.50 1.0

PANDEMIC\_FATIGUE\_3 -0.06 0.90 0.75 0.25 1.0

PANDEMIC\_FATIGUE\_4 0.58 0.24 0.59 0.41 1.3

PANDEMIC\_FATIGUE\_5 0.85 -0.01 0.71 0.29 1.0

PANDEMIC\_FATIGUE\_6 0.06 0.86 0.81 0.19 1.0

PANDEMIC\_FATIGUE\_7 0.76 0.00 0.58 0.42 1.0

PANDEMIC\_FATIGUE\_8 0.77 -0.06 0.53 0.47 1.0

PANDEMIC\_FATIGUE\_9 0.27 0.51 0.52 0.48 1.5

PANDEMIC\_FATIGUE\_10 0.77 -0.10 0.50 0.50 1.0

MR1 MR2

SS loadings 4.00 2.10

Proportion Var 0.40 0.21

Cumulative Var 0.40 0.61

Proportion Explained 0.66 0.34

Cumulative Proportion 0.66 1.00

With factor correlations of

MR1 MR2

MR1 1.00 0.68

MR2 0.68 1.00

Mean item complexity = 1.1

Test of the hypothesis that 2 factors are sufficient.

df null model = 45 with the objective function = 5.93 with Chi Square = 5442.45

df of the model are 26 and the objective function was 0.15

The root mean square of the residuals (RMSR) is 0.02

The df corrected root mean square of the residuals is 0.03

The harmonic n.obs is 923 with the empirical chi square 48.72 with prob < 0.0045

The total n.obs was 923 with Likelihood Chi Square = 133.49 with prob < 2e-16

Tucker Lewis Index of factoring reliability = 0.965

RMSEA index = 0.067 and the 90 % confidence intervals are 0.056 0.078

BIC = -44.03

Fit based upon off diagonal values = 1

Measures of factor score adequacy

MR1 MR2

Correlation of (regression) scores with factors 0.95 0.95

Multiple R square of scores with factors 0.91 0.90

Minimum correlation of possible factor scores 0.82 0.80

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> # Three factor solution

> fa(POL$rho, n.obs = 923, nfactors = 3, fm="minres", rotate="oblimin")

Factor Analysis using method = minres

Call: fa(r = POL$rho, nfactors = 3, n.obs = 923, rotate = "oblimin",

fm = "minres")

Standardized loadings (pattern matrix) based upon correlation matrix

MR1 MR2 MR3 h2 u2 com

PANDEMIC\_FATIGUE\_1 0.35 0.17 0.37 0.61 0.39 2.4

PANDEMIC\_FATIGUE\_2 0.01 0.11 0.72 0.63 0.37 1.1

PANDEMIC\_FATIGUE\_3 0.01 0.87 -0.04 0.74 0.26 1.0

PANDEMIC\_FATIGUE\_4 0.69 0.25 -0.09 0.65 0.35 1.3

PANDEMIC\_FATIGUE\_5 0.75 0.01 0.13 0.74 0.26 1.1

PANDEMIC\_FATIGUE\_6 -0.03 0.86 0.11 0.82 0.18 1.0

PANDEMIC\_FATIGUE\_7 0.32 0.05 0.47 0.59 0.41 1.8

PANDEMIC\_FATIGUE\_8 0.40 -0.01 0.38 0.53 0.47 2.0

PANDEMIC\_FATIGUE\_9 0.29 0.51 -0.01 0.52 0.48 1.6

PANDEMIC\_FATIGUE\_10 0.74 -0.09 0.05 0.54 0.46 1.0

MR1 MR2 MR3

SS loadings 2.64 2.19 1.55

Proportion Var 0.26 0.22 0.15

Cumulative Var 0.26 0.48 0.64

Proportion Explained 0.41 0.34 0.24

Cumulative Proportion 0.41 0.76 1.00

With factor correlations of

MR1 MR2 MR3

MR1 1.00 0.62 0.74

MR2 0.62 1.00 0.54

MR3 0.74 0.54 1.00

Mean item complexity = 1.4

Test of the hypothesis that 3 factors are sufficient.

df null model = 45 with the objective function = 5.93 with Chi Square = 5442.45

df of the model are 18 and the objective function was 0.05

The root mean square of the residuals (RMSR) is 0.01

The df corrected root mean square of the residuals is 0.02

The harmonic n.obs is 923 with the empirical chi square 11.82 with prob < 0.86

The total n.obs was 923 with Likelihood Chi Square = 43.6 with prob < 0.00066

Tucker Lewis Index of factoring reliability = 0.988

RMSEA index = 0.039 and the 90 % confidence intervals are 0.025 0.054

BIC = -79.3

Fit based upon off diagonal values = 1

Measures of factor score adequacy

MR1 MR2 MR3

Correlation of (regression) scores with factors 0.94 0.95 0.89

Multiple R square of scores with factors 0.88 0.90 0.80

Minimum correlation of possible factor scores 0.76 0.79 0.60