

# Revision comments

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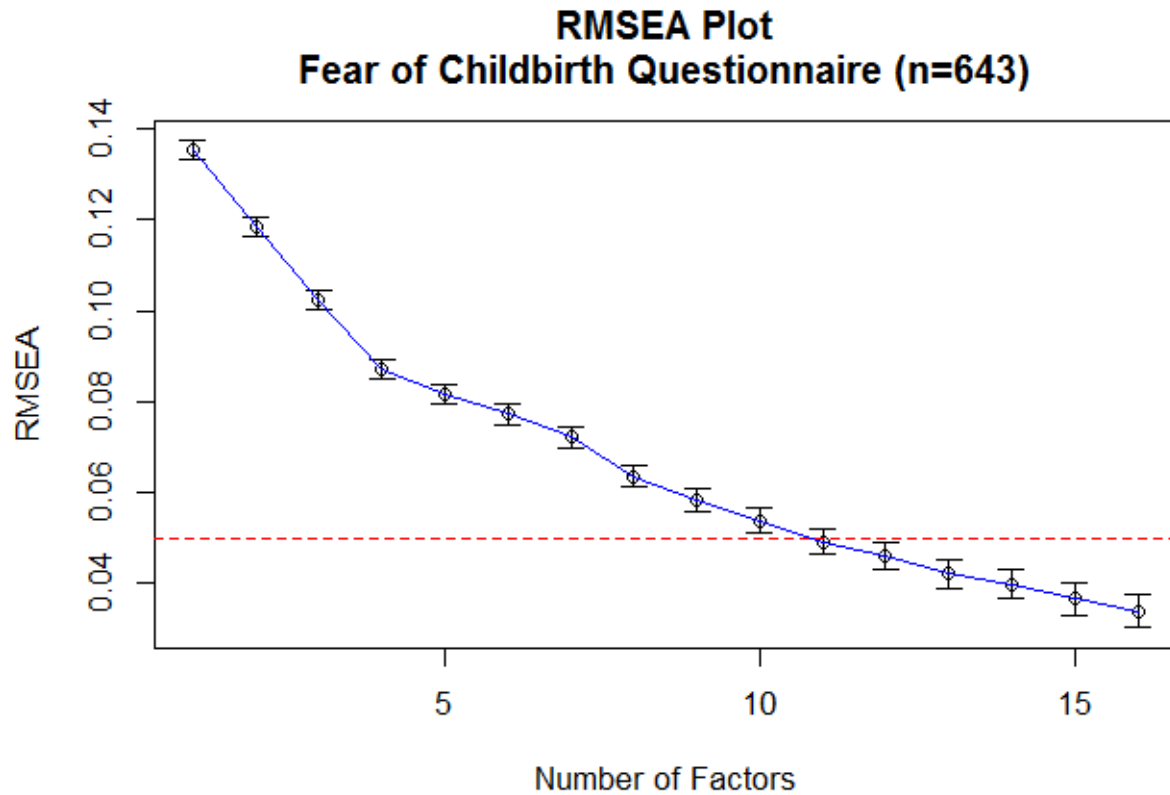
## Revision comments

### 1. Fit statistics.

3. SPSS does not provide fit statistics for exploratory factor analysis. In order to convince me of the structure of your measure, you have to provide fit statistics. For example, M plus provides fit statistics for such analyses (also see reviewer 3; and M plus will provide geomin rotation), besides chi-squared, RMSEA (and confidence interval), also report at least CFI and TLI.

Response:

Here are the fit statistics for factor analytic solution in table and graphic format.



	Factors	Cum.Eigen	Chi-Square	Df	p.value	RMSEA.Pt	RMSEA.Lo	RMSEA.Hi
[1,]	1	15.54644	14390.417	1127	0	0.13539363	0.13342391	0.13737263
[2,]	2	21.61655	10789.396	1079	0	0.11839687	0.11637184	0.12043263
[3,]	3	24.63805	7965.640	1032	0	0.10229945	0.10021106	0.10440020
[4,]	4	26.64605	5796.907	986	0	0.08717812	0.08501450	0.08935580
[5,]	5	28.41399	4959.072	941	0	0.08155423	0.07932515	0.08379840
[6,]	6	29.87331	4332.693	897	0	0.07724020	0.07494366	0.07955277
[7,]	7	31.25113	3712.555	854	0	0.07220659	0.06983360	0.07459650
[8,]	8	32.46623	2923.307	812	0	0.06364000	0.06116116	0.06613606
[9,]	9	33.47568	2448.905	771	0	0.05822225	0.05563812	0.06082320
[10,]	10	34.47393	2092.926	731	0	0.05387044	0.05117417	0.05658229
[11,]	11	35.28305	1766.844	692	0	0.04918721	0.04635593	0.05203071
[12,]	12	36.07588	1549.766	654	0	0.04618925	0.04322740	0.04915953
[13,]	13	36.82597	1318.401	617	0	0.04207975	0.03894254	0.04521586
[14,]	14	37.54288	1176.173	581	0	0.03994533	0.03665421	0.04322725
[15,]	15	38.21977	1014.674	546	0	0.03656552	0.03305376	0.04004819
[16,]	16	38.85704	891.419	512	0	0.03397481	0.03023079	0.03766446

## 2. Number of factors

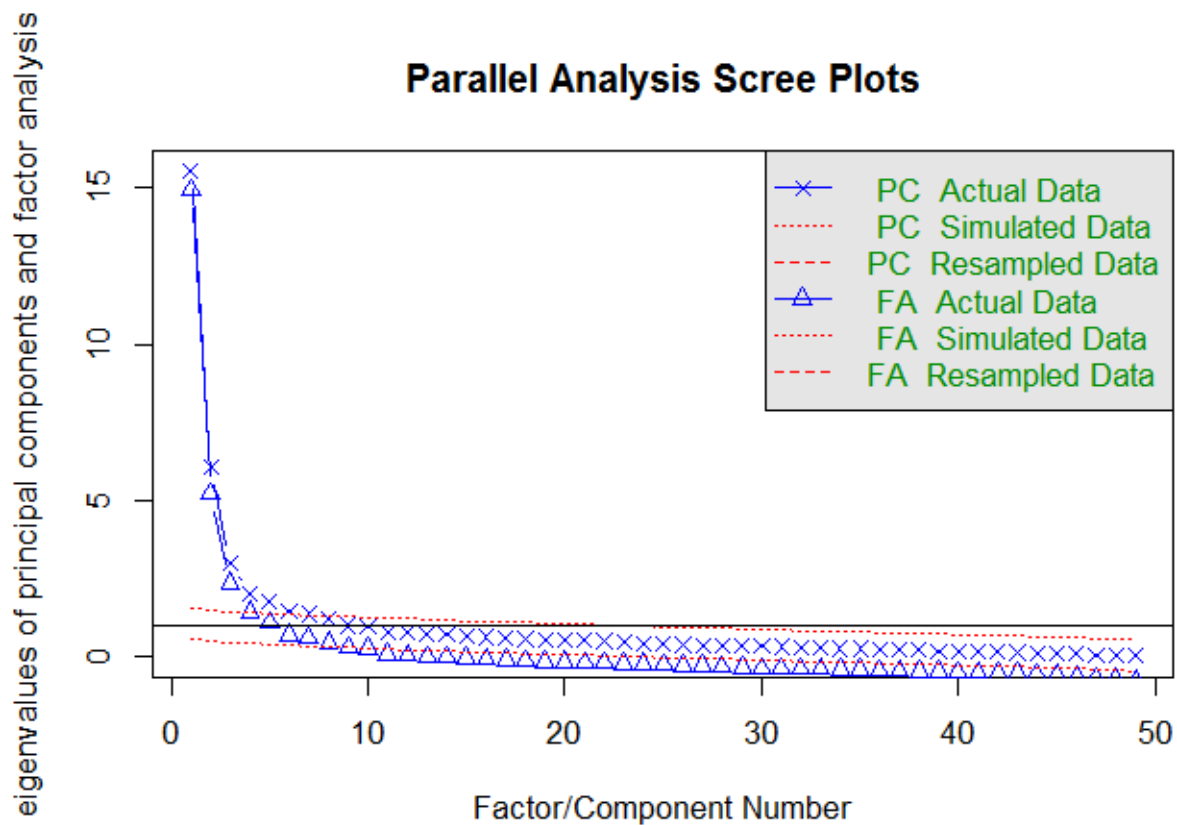
Using the standard scree plot is an outdated approach to select the number of factors. So please follow his advice and apply a more advanced method such as parallel analysis or the MAP test or if you use a scree plot, do this on basis of fit statistics like for example the Hull method described by Lorenzo-Seva, Timmerman and Kiers (2011).

## PA with psych

Using psych package conduct Parallel analysis

```
library(psych)
foc <- ds %>% dplyr::select_(.dots = items_phase_0)
foc <- matrix(as.numeric(unlist(foc)), nrow=nrow(foc), ncol=ncol(foc)) # turn it into a matrix

pa_result <- psych::fa.parallel(
  foc,
  fm = "uls",
  fa = "both",
  se.bars = TRUE
) # "Parallel analysis suggests that the number of factors = 9" (from "psych" package)
```



Parallel analysis suggests that the number of factors = 9 and the number of components = 7

## Velicer's MAP Test

Velicer's Minimum Average Partial Test

The entered data is a correlation matrix.

Eigenvalues:

root	eigenvalue
1	15.54644
2	6.07010
3	3.02150
4	2.00800
5	1.76794
6	1.45933
7	1.37782
8	1.21510
9	1.00945
10	0.99825
11	0.80912
12	0.79283
13	0.75008
14	0.71691
15	0.67689
16	0.63728
17	0.60318
18	0.58449
19	0.55647
20	0.54794
21	0.53050
22	0.51603
23	0.48164
24	0.43361
25	0.42004
26	0.40015
27	0.38280
28	0.37340
29	0.35209
30	0.34443
31	0.33339
32	0.32565
33	0.30469
34	0.27707
35	0.27190
36	0.24842
37	0.23798
38	0.22132
39	0.19746
40	0.18598
41	0.17356
42	0.15938
43	0.14708
44	0.13535
45	0.12146
46	0.10595
47	0.06085
48	0.05601
49	0.05266

Velicer's Average Squared Correlations

root	Avg.Corr.Sq.	Avg.Corr.power4
0	0.11078	0.02640
1	0.03678	0.00709
2	0.02336	0.00437
3	0.01848	0.00250
4	0.01474	0.00127
5	0.01357	0.00105
6	0.01327	0.00097
7	0.01291	0.00087
8	0.01257	0.00074
9	0.01220	0.00079
10	0.01229	0.00077
11	0.01292	0.00081
12	0.01351	0.00086
13	0.01427	0.00092
14	0.01496	0.00103
15	0.01573	0.00124
16	0.01659	0.00151
17	0.01814	0.00190
18	0.01931	0.00235
19	0.02064	0.00256
20	0.02222	0.00308
21	0.02393	0.00350
22	0.02606	0.00402
23	0.02870	0.00458
24	0.03110	0.00517
25	0.03513	0.00637
26	0.03846	0.00762
27	0.04089	0.00885
28	0.04423	0.01004
29	0.04756	0.01121
30	0.05378	0.01316
31	0.05752	0.01474
32	0.06685	0.01793
33	0.06915	0.01924
34	0.07595	0.02189
35	0.08841	0.02843
36	0.09652	0.03152
37	0.11042	0.03773
38	0.12215	0.04425
39	0.14644	0.05905
40	0.15439	0.06775
41	0.18216	0.08709
42	0.19538	0.09707
43	0.22050	0.10756
44	0.24770	0.12921
45	0.36678	0.22800
46	0.34261	0.20812
47	0.50826	0.38111
48	1.00000	1.00000

The smallest average squared correlation is 0.0122

The smallest average 4rth power correlation is 0.00074

The Number of Factors According to the Original (1976) MAP Test is = 9

The Number of Factors According to the Revised (2000) MAP Test is = 8

### 3. PA of Interference Scale

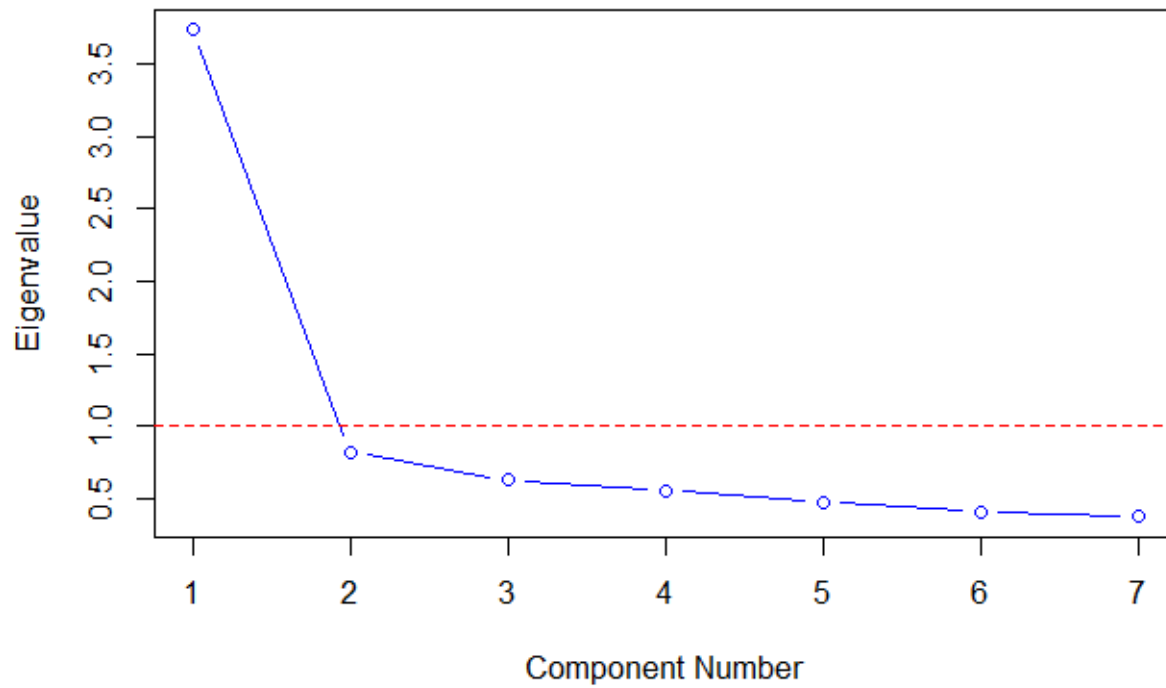
Using 7 items of the Interference Scale

	name_new		label	label_graph
1	itf_1	Interference 1 - My relationship with my partner/spouse.		relations-spouse
2	itf_2	Interference 2 - My relationships with family members		relations-family
3	itf_3	Interference 3 - Other relationships in my life		relations-other
4	itf_4	Interference 4 - My relationships with my prenatal caregivers		relations-parents
5	itf_5	Interference 5 - My work life		work-life
6	itf_6	Interference 6 - My leisure activities		leisure
7	itf_7	Interference 7 - Getting ready for the new baby		baby-ready

	itf_1	itf_2	itf_3	itf_4	itf_5	itf_6	itf_7
Not at all	457	485	530	481	498	494	454
Slightly	113	106	82	93	92	93	128
Moderately	49	28	21	45	30	35	38
Quite a bit	15	20	6	20	16	18	19
Extremely	9	4	4	4	7	3	4

```
Scree.Plot(Ritf,main="SCREE Plot\nFear of Interference Scale (n=643)")
```

### SCREE Plot Fear of Interference Scale (n=643)

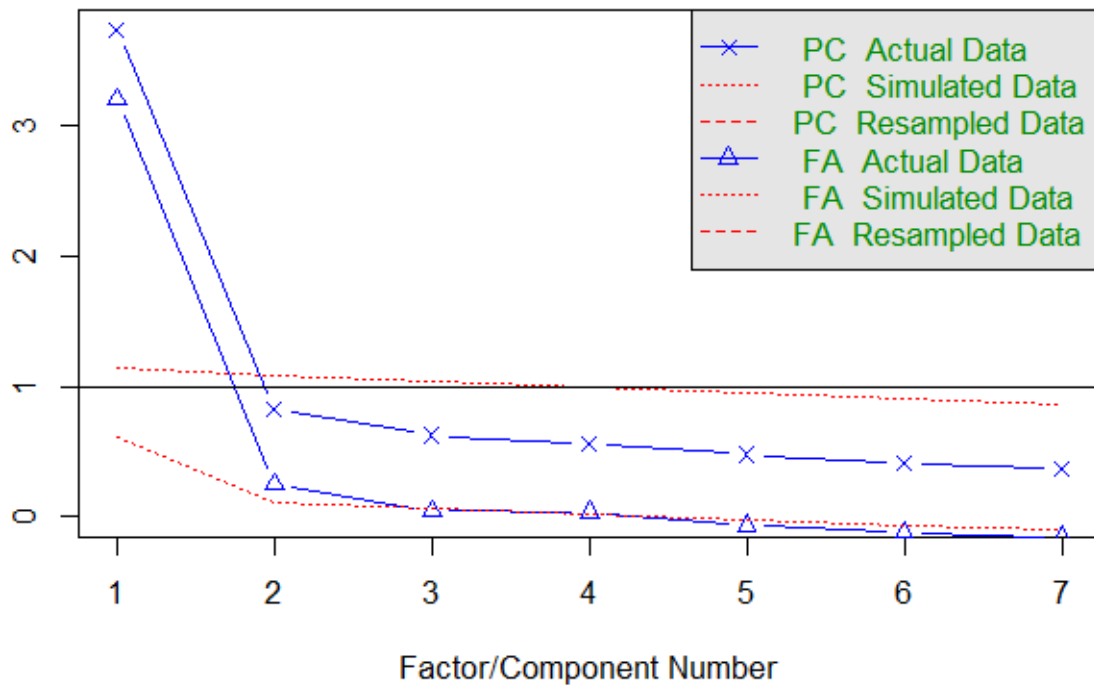


```
library(psych)
itf <- ds %>% dplyr::select_(.dots = items_int)
itf <- matrix(as.numeric(unlist(itf)), nrow=nrow(itf), ncol=ncol(itf)) # turn it into a matrix

pa_result <- psych::fa.parallel(
  itf,
  fm = "uls",
  fa = "both",
  se.bars = TRUE
)
```

eigenvalues of principal components and factor analysis

## Parallel Analysis Scree Plots



Parallel analysis suggests that the number of factors = 2 and the number of components = 1

## Reproducibility Information

```
sessionInfo()
```

R version 3.2.3 (2015-12-10)

Platform: x86\_64-w64-mingw32/x64 (64-bit)

Running under: Windows 7 x64 (build 7601) Service Pack 1

locale:

[1] LC\_COLLATE=English\_United Kingdom.1252 LC\_CTYPE=English\_United Kingdom.1252

[3] LC\_MONETARY=English\_United Kingdom.1252 LC\_NUMERIC=C

[5] LC\_TIME=English\_United Kingdom.1252

attached base packages:

[1] stats graphics grDevices utils datasets methods base

other attached packages:

[1] paramap\_1.1 polycor\_0.7-8 sfsmisc\_1.1-0 mvtnorm\_1.0-5 GPArotation

[6] sem\_3.1-7 plotrix\_3.6-2 psych\_1.5.8 ggplot2\_2.0.0 magrittr\_1.5

[11] knitr\_1.11



loaded via a namespace (and not attached):

[1] splines_3.2.3	lattice_0.20-33	colorspace_1.2-6	htmltools_0.2.6	stats4_3.2.3	yaml_2.2.1
[7] nloptr_1.0.4	DBI_0.4-1	RColorBrewer_1.1-2	plyr_1.8.2	stringr_1.0.0	mutex_0.1.0
[13] gtable_0.1.2	coda_0.18-1	evaluate_0.8	mi_1.0	extrafont_0.17	parallel_4.2.1
[19] Rttf2pt1_1.3.3	Rcpp_0.12.6	readr_0.2.2	scales_0.3.0	arm_1.8-6	fontawesome_0.1.8
[25] abind_1.4-3	lme4_1.1-10	mnormt_1.5-3	testit_0.4	digest_0.6.8	stringdist_0.8.1
[31] dplyr_0.5.0	grid_3.2.3	tools_3.2.3	lazyeval_0.1.10	tibble_1.1	dict_0.1.0
[37] tidyr_0.4.1	extrafontdb_1.0	MASS_7.3-45	Matrix_1.2-3	matrixcalc_1.0-3	assort_0.1.0
[43] minqa_1.2.4	rmarkdown_0.9.2	R6_2.0.1	boot_1.3-17	nlme_3.1-122	