

Supplementary Figure S3 Construct of the eFI-CGA using EFA

a) **Kaiser-Meyer-Olkin and Bartlett's Tests** showed the sampling adequacy of the data with significant sphericity for properly conducting an exploratory factor analysis (EFA).

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.771
Bartlett's Test of Sphericity	Approx. Chi-Square	965.577
	df	435
	Sig.	.000

b) **EFA structure matrix** revealed a four-factor structure of the eFI-CGA construct.

Each factor was associated with 4 to 7 CGA items with loading values > 0.4, as below:

Structure Matrix

	Factor			
	1	2	3	4
cognition			.669	
CogScore			.648	
fast_textbox			.673	
decreased_mood		.516		
anxiety		.614		
fatigue		.430		
motivation				
HearVision				
sleep		.508		
drowsiness		.541		
pain				
control_life				
exercise				
smoker				
strength	.467			
balance				
falls				
walkingdep	.686			.408
aid	.871			
weight				.648
appetite		.448		
constip				
bladder				
bathing	.457		.409	
cleaning	.663			
income				
socially_engaged		.450		
lives				
number_meds				.454
number_probelms				.629

Extraction Method: Maximum Likelihood.

Rotation Method: Promax with Kaiser Normalization.

Factors 1 represented function/strength/mobility and included activities of daily living (ADL) and instrumental IADL, strength, and walking independently. Factor 2 represented psychological health and social engagement and included mood, anxiety, sleep, and social engagement. Factor 3 represented cognition and included cognitive diagnosis, cognition score and FAST score. Factor 4 represented physical health and included medical problems, medications, weight. Significant cross loading amounts between different factors were observed for independent walking spreading factors 1 and 2 (*i.e.*, function and 2 physical health), as well as bathing spreading factors 1 and 3 (*i.e.*, function and cognition).

c) Scree plot suggested that the rotation sums of squared loadings associated with the four construct factors explained a significant amount of variance. Even so, the scree plot showed each of the CGA items used in the EFA analysis contributed to the total variance of the dataset, which included the 40% items beyond the most representative four factors, verifying the multidimensional construct of the deficit accumulation eFI-CGA. Although the scree plot showed eigenvalues > 1 for factors 5-10, these accounted for progressively smaller and diffuse portions of variance and did not yield clinically interpretable constructs and therefore were not retained [36]. This pattern is consistent with the multidimensional and cumulative nature of deficit accumulation captured by the eFI-CGA, in which numerous items contribute incremental variance beyond the core domains.

Total Variance Explained	
Factor	Rotation Sums of Squared Loadings ^a
	Total
1	3.151
2	2.663
3	2.223
4	1.946

Extraction Method: Maximum Likelihood.

