

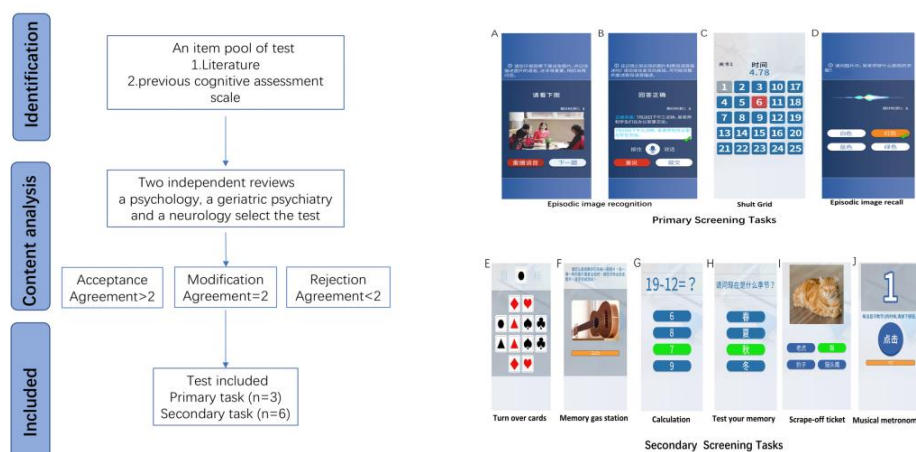
Supplementary Content

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eFigure 1. Selection flowchart and included modules



Notes: The final included tasks showing in the right panel of figure. The upper figure showed the primary screening task(A-D), the secondary tasks including E-J.

eTABLE 1 Descriptions of tasks and outcomes and main cognitive domains assessed

Tasks and actions	Outcome measures	Cognitive function assessed
Primary screening task		
Task1 Episodic image recognition Participants must observe pictures and listen to the description of the image carefully and then need to repeat the recording as precisely as possible	Time on the task 1 Task completion: Accuracy of retelling	working memory Episodic memory
Task2 Shult Grid Participants are asked to point out the positions with their fingers in the order of 1-9,1-16,1-25	Time on the task 2 Task completion: Point out number in right order within the fixed time	Vigilance sustained attention
Task3 Episodic image recall Participants need to repeat the whole recording and answer the question about a scene that was previously shown to them in the task 1.	Time on the task 3 Task completion: Number of correct answers	Episodic memory recall Language
Secondary screening task		
Task4 Turn over cards Participants must turn over the card which had the same suit to the card they previously saw.	Time on the task 4 Task completion: Number of turning over the card correctly	Working memory
Task 5: Memory gas station Participants asked to click on the repeated image in the screen.	Time on the task 5 Task completion: Number of choosing the repeated	Working memory

	images correctly	
Task6: Calculation Participants must complete the single-digit addition and multiplication, then choose the option below.	Time on the task 6 Task completion: Number of correct calculation	Calculation
Task7: Test your memory Participants must answer the question about the season and specific data, that is the day, month, year.	Time on the task 7 Task completion: Number of choosing the right options	Orientation
Task8: Scrape-off ticket Participants need to rub the picture with their finger on the screen, then choose the right name consistent with the object in the picture.	Time on the task 8 Task completion: Number of choosing the right options	Language
Task9: Musical metronome Participants must click the button in the middle of the screen when they see the number 1 according to the musical beat.	Time on the task 9 Task completion: Number of hits at the right time point	Vigilance sustained attention

eTable 2. Partial correlation analysis (with age and years of education as the control factors) correlation coefficients of the Chinese Version of Montreal Cognitive Assessment scores of each task component of TCSA

	Correlation Coefficients	
	<i>r</i>	<i>p</i>
C-MoCA total score	0.87	<0.001
Language	0.41	<0.001
Memory		
Working memory	0.46	<0.001
Short-term memory	0.49	<0.001
Vigilance sustained attention	0.74	<0.001
Orientation to time and place	0.87	<0.001

Notes: C-MoCA, Chinese Version of Montreal Cognitive Assessment;

TCSA, Thoven Cognitive Self-Assessment