

Table S1. Summary results of item selection for the functional limitation domain

Items	a	GPCM b	S-X ²	Item-total	Information	Local	DIF on	Selected items
				correlation	function	dependence	gender	
Q1. Sitting for 2 hours	2.45	-0.20	38.32	0.52	10.79	-	0.1	○
Q2. Standing up from a chair	3.93	-0.09	43.21*	0.75	23.43	-	0.4	○
Q3. Rising from the floor	3.90	-0.22	35.75	0.75	22.49	-	786.7*	
Q4. Standing for 30 minutes	4.42	-0.19	42.67	0.76	26.86	-	0.1	○
Q5. Balancing on two feet	3.46	-0.29	30.05	0.72	18.65	-	0.0	
Q6. Jumping	4.84	0.17	55.85*	0.80	33.87	Q7	2.8	
Q7. Standing on tiptoes	4.74	0.16	50.94	0.80	37.11	Q6	0.1	○
Q8. Bending	4.38	-0.19	29.34	0.76	26.37	-	0.0	○
Q9. Kneeling	3.82	0.07	47.77	0.76	26.82	-	0.2	○
Q10. Crouching	3.71	0.13	62.09	0.75	25.32	-	0.0	○
Q11. Picking up objects from the floor	4.54	-0.20	39.36	0.79	29.85	-	0.4	
Q12. Preparing bed	4.30	-0.29	19.79	0.73	25.62	-	3.0	
Q13. Walking indoors	4.81	-0.18	12.00*	0.67	28.92	-	0.9	
Q14. Walking short distance	4.16	-0.19	23.69*	0.69	24.35	-	1.0	
Q15. Walking 400m	4.45	-0.06	25.85	0.77	29.69	-	2.3	○
Q16. Walking 1km	3.86	0.09	59.37	0.80	27.06	-	0.6	○
Q17. Going outside of the house	4.89	-0.27	18.61*	0.73	25.59	-	0.1	
Q18. Running 20m	3.97	0.21	57.28	0.76	24.92	-	0.0	
Q19. Running 400m	3.34	0.37	65.08	0.70	20.77	-	0.1	
Q20. Hiking	4.54	0.32	56.32	0.78	30.38	Q12	2.4	
Q21. Going upstairs	5.75	0.15	41.61	0.82	47.14	Q22	0.9	
Q22. Going downstairs	5.94	0.20	39.50	0.85	47.73	Q21	4.4*	
Q23. Climbing 1 flight	4.01	0.22	43.58	0.79	30.09	-	0.6	○
Q24. Getting in and out of the car	4.74	-0.04	32.81	0.80	34.28	Q25	5.5*	○
Q25. Getting in and out of a bus	5.8	0.02	25.04	0.82	45.20	Q24	4.0*	○
Q26. Grasping small objects	2.57	-0.40	23.15	0.58	10.66	-	0.9	○
Q27. Opening containers	2.35	-0.38	29.78	0.66	9.86	Q29	6.4*	○
Q28. Squeezing new toothpaste	2.46	-0.54	12.98	0.56	7.64	Q29	1.7	
Q29. Turning faucets/doorknob	2.74	-0.50	22.20	0.63	9.22	Q27, 28, 35	0.0	
Q30. Holding a full glass of water	2.26	-0.54	13.94	0.59	6.93	-	0.5	
Q31. Pushing and pulling large objects	2.29	-0.39	51.54	0.61	9.89	-	0.9	○
Q32. Reaching behind back	2.15	-0.22	53.64	0.61	9.69	-	2.4	○
Q33. Reaching overhead with both hands	2.24	-0.36	43.66*	0.55	8.11	Q34	0.5	○
Q34. Reaching overhead with one hand	1.98	-0.55	35.52*	0.52	6.12	Q33	0.3	○
Q35. Lifting a cup of water to your mouth	1.98	-0.40	15.55	0.54	5.49	Q29	0.1	

Q36. Placing heavy objects overhead	3.03	-0.18	37.79	0.70	18.33	-	9.2*	
Q37. Lifting 5 kg	3.02	-0.06	48.81	0.71	18.61	Q38	25.4*	o
Q38. Lifting 10 kg	2.89	0.34	74.28	0.68	19.35	Q37	29.6*	

The shaded box represents items meeting the criteria.

DIF, differential item functioning; GPCM, generalized partial credit model; S- X^2 , item fit index.

* $p < 0.01$. DIF on gender represents uniform DIF (X^2_{cib}).