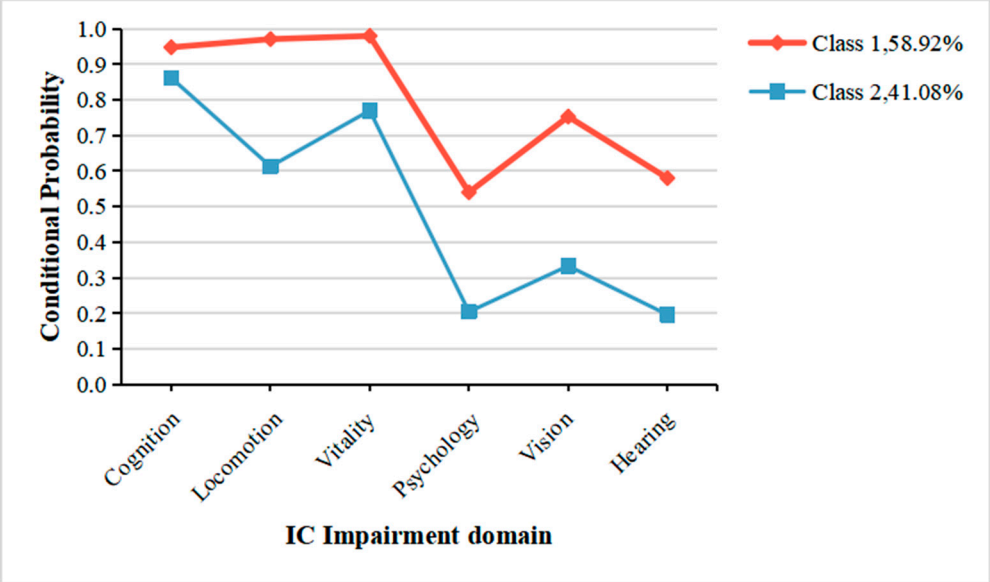
Supplementary Material

Supplementary Table S1. Characteristics of all participants in the study

Variables		Total(n=813)	CMD(n=178)	CMM(n=635)	*p-value*
Age	< 80	387(47.60)	82(46.07)	305(48.03)	0.643
	≥ 80	426(52.40)	96(53.93)	330(51.97)	
Gender	Male	272(33.46)	59(33.15)	213(33.54)	0.921
	Female	541(66.54)	119(66.85)	422(66.46)	
Community Type	Urban	349(42.93)	78(43.82)	271(42.68)	0.096
	Suburban	163(20.05)	26(14.61)	137(21.57)	
	Rural	301(37.02)	74(41.57)	227(35.75)	
Marital Status	Single	302(37.15)	66(37.08)	236(37.17)	0.983
	Spouse	511(62.85)	112(62.92)	399(62.83)	
Education	Illiterate	268(32.96)	63(35.39)	205(32.28)	0.567
	Primary	301(37.02)	67(37.64)	234(36.85)	
	Junior high school and above	244(30.01)	48(26.97)	196(30.87)	
Medical insurance	No	21(2.58)	4(2.25)	17(2.68)	0.749
	Yes	792(97.42)	174(97.75)	618(97.32)	
Household size		2(2,2)	2(1,2)	2(2,2)	0.307
BMI		24.97±3.61	24.75±3.80	25.03±3.56	0.508
Polypharmacy	No	460(56.58)	139(78.09)	321(50.55)	<0.001
	Yes	353(43.42)	39(21.91)	314(49.45)	
Self-rated health status	Verygood	37(4.55)	11(6.18)	26(4.09)	0.020
	Good	307(37.76)	80(44.94)	227(35.75)	
	Fair	272(33.46)	59(33.15)	213(33.54)	
	Poor	175(21.53)	26(14.61)	149(23.46)	
	Very poor	22(2.71)	2(1.12)	20(3.15)	
Insufficient physical activity	No	590(72.57)	138(77.53)	452(71.18)	0.093
	Yes	223(27.43)	40(22.47)	183(28.82)	
Total PSQI		7.89±4.76	6.78±4.58	8.20±4.76	<0.001
Subjective sleep quality(score)	Very good(0)	158(19.43)	37(20.79)	121(19.06)	0.324
	Fairly good(1)	384(47.23)	92(51.69)	292(45.98)	
	Fairly poor(2)	178(21.89)	32(17.98)	146(22.99)	
	Very poor(3)	93(11.44)	17(9.55)	76(11.97)	
Sleep latency(score)	No difficulty(0)	221(27.18)	58(32.58)	163(25.67)	0.050
	Mild difficulty(l)	201(24.74)	50(28.09)	151(23.78)	
	Moderate difficulty(2)	141(17.34)	22(12.36)	119(18.74)	
	Severe difficulty(3)	250(30.75)	48(26.97)	202(31.81)	
Sleep duration(score)	> 7 hours(0)	283(34.81)	69(38.76)	214(33.70)	0.435
	6–7 hours(1)	283(34.81)	63(35.39)	220(34.65)	
	5–6 hours(2)	117(14.39)	23(12.92)	94(14.80)	
	< 5 hours(3)	130(15.99)	23(12.92)	107(16.85)	
Habitual sleep efficiency(score)	> 85%(0)	333(40.96)	89(50.00)	244(38.43)	0.024
	75–84%(1)	161(19.80)	34(19.10)	127(20.00)	
	65–74%(2)	99(12.18)	14(7.87)	85(13.39)	

	< 65%(3)	220(27.06)	41(23.03)	179(28.19)	
Sleep disturbances(score)	Never(O)	10(1.23)	5(2.81)	5(0.79)	0.001
	Less than once per week(l)	587(72.20)	145(81.46)	442(69.61)	
	Once or twice per week(2)	205(25.22)	26(14.61)	179(28.19)	
	Three or more times per week(3)	11(1.35)	2(1.12)	9(1.42)	
Use of sleeping medication(score)	Never(O)	699(85.98)	159(89.33)	540(85.04)	0.481
	Less than once per week(l)	16(1.97)	2(1.12)	14(2.20)	
	Once or twice per week(2)	14(1.72)	3(1.69)	11(1.73)	
	Three or more times per week(3)	84(10.33)	14(7.87)	70(11.02)	
Day time dys function(score)	Never(O)	355(43.67)	95(53.37)	260(40.94)	<0.001
	Less than once per week(l)	155(19.07)	41(23.03)	114(17.95)	
	Once or twice per week(2)	153(18.82)	22(12.36)	131(20.63)	
	Three or more times per week(3)	150(18.45)	20(11.24)	130(20.47)	



Supplementary Figure S1. Conditional probabilities of 2-classes IC impairments by latent class. Abbreviation: IC, intrinsic capacity.

Supplementary Table S2. LCA clusters and conditional probabilities of impairment for each IC domains (2-classes)*

IC domain impairment	Conditional probability of IC domain impairment (%)	
	Class 1,58.92%	Class 2,41.08%
Cognition	**94.8**	86.2
Locomotion	**97.1**	61.3
Vitality	**98.0**	77.0
Psychology	**54.0**	20.4
Vision	**75.3**	33.3
Hearing	**58.0**	19.6

*The labels of the clusters were defined based on the comparison of the conditional probabilities with the prevalence of impairment per IC domain: When the conditional probability was higher than the observed prevalence for a given IC domain, such a domain appears in the label of the cluster (numbers in bold in the table).

Supplementary Table S3. LCA indicators of impaired intrinsic capabilities among community-dwelling older adults with CMDs*

Class	AIC	BIC	aBIC	Entropy	BLRT(*P*)	VLMR(*P*)	Category Probability (%)
1	5656.367	5684.571	5665.518				
2	5481.965	5543.075	5501.792	0.469	＜0.001	＜0.001	55.60/44.40
3	5460.802	5554.817	5491.305	0.689	0.304	＜0.001	35.42/49.08/15.50
4	5464.400	5591.320	5505.579	0.646	0.667	＜0.001	24.72/40.71/20.79/13.78
5	5470.042	5629.867	5521.896	0.575	1.000	0.126	46.24/30.26/5.90/8.98/8.61

*The definition of locomotor impairment as an SPPB score ≤ 8 was applied in the sensitivity analysis.

Supplementary Mplus syntax

Date: file is XXXXX;
Variable:
names are ID cognition depression vitality vision hearing locomotin;
usevariables are cognition depression vitality vision hearing locomotin;
categorical= cognition depression vitality vision hearing locomotin;
classes=c(1);*
Analysis:type=mixture;
Plot:type is plot3;
series is cognition(1) depression(2) vitality(3) vision(4) hearing(5) locomotion(6);
savedata:file is XXX.txt;
save is cprob;
format is free;
output:tech1 tech7 tech11 tech14
*The number of classes was modified to 1, 2, 3, 4, and 5, respectively, in this section