Informant measures in HCAP

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USC

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Topics

- HCAP informant measures
- Cultural validity and comparisons
- Repetitiveness of included tests
- Informant types
- Recommendations and discussion points

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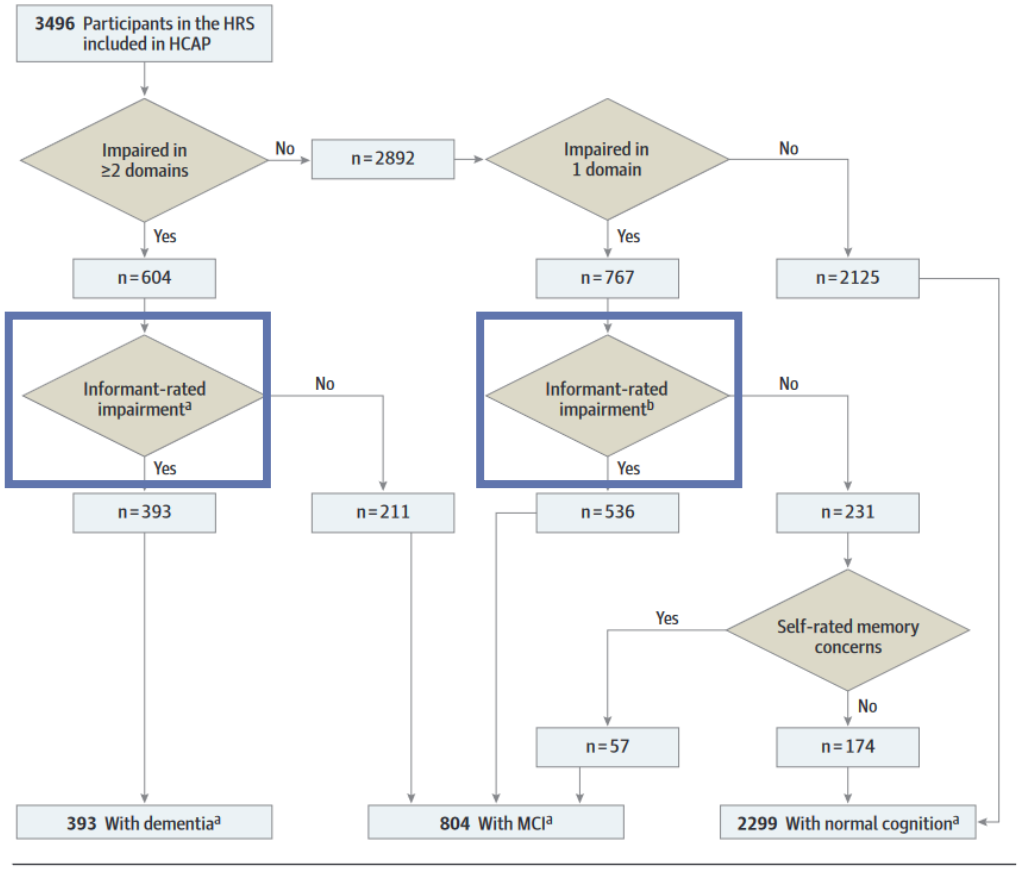
Importance of informant report measures

- Provide a unique and important perspective
- Critical for collecting information on those who can no longer complete cognitive tests (in core surveys as well)

Figure. Flow Diagram Showing the Harmonized Cognitive Assessment Protocol (HCAP) Classification Algorithm for Dementia and Mild Cognitive Impairment (MCI)



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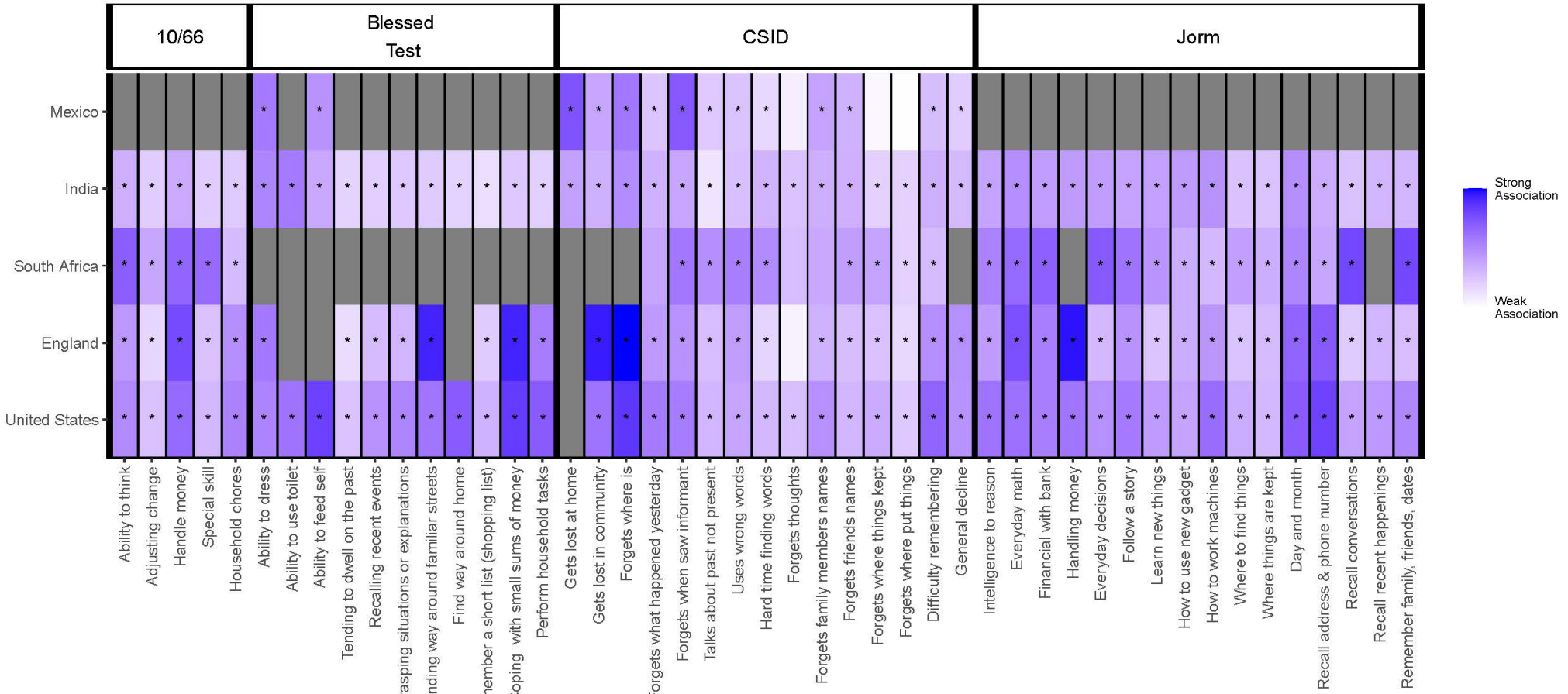

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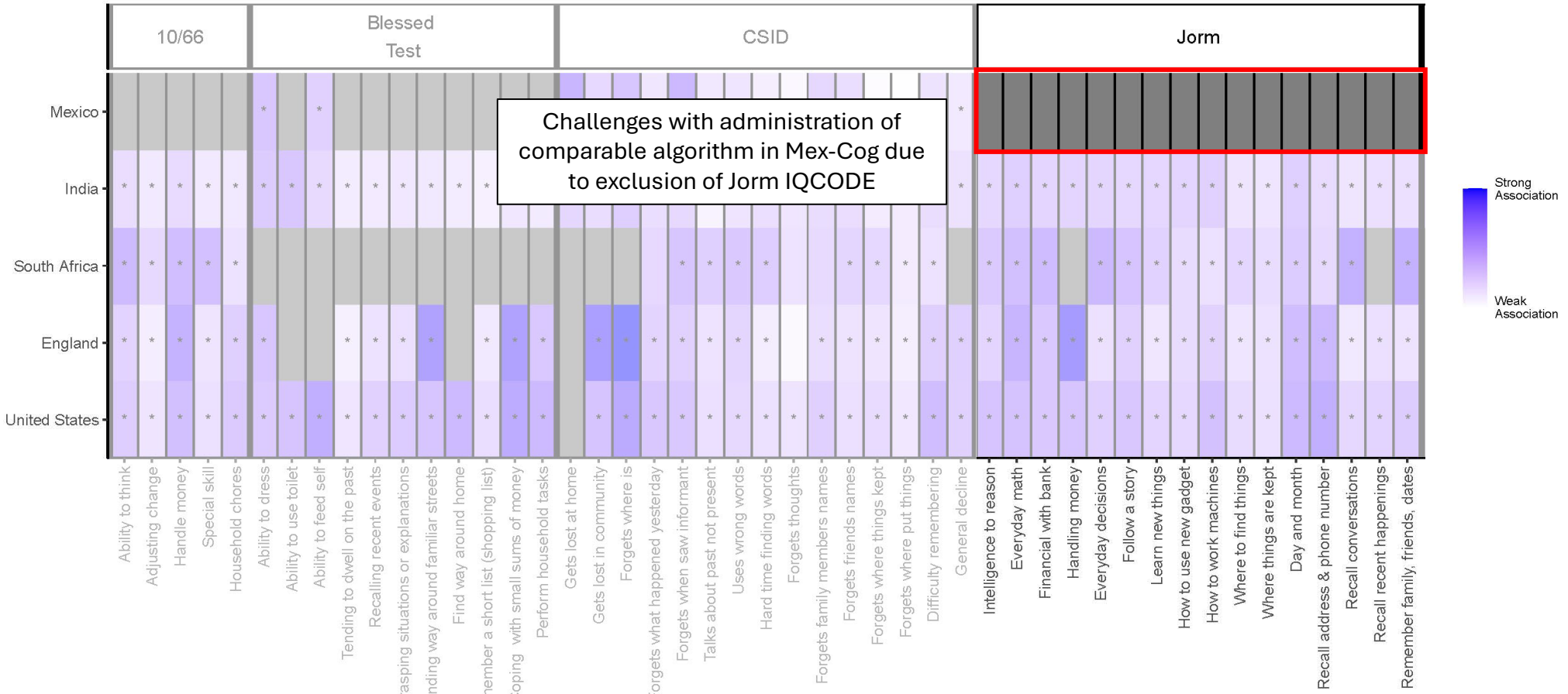

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Importance of attention to administration details

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Informant Questionnaire on Cognitive Decline in the Elderly (IQCODE) in LASI-DAD, ELSA, and HRS

	LASI-DAD			ELSA-HCAP			HRS-HCAP		
Variable	Mean	Doesn't do	Other missing	Mean	Doesn't do	Other missing	Mean	Doesn't do	Other missing
Remember family, friends, dates	3.46	1.0 (42)	0.6 (25)	3.23	0.0 (0)	1.0 (11)	3.25	0.3 (8)	0.1 (2)
Recall recent happenings	3.43	0.3 (14)	0.8 (32)	3.32	0.0 (0)	0.8 (8)	3.32	0.2 (6)	0.1 (3)
Recall conversations	3.45	0.2 (7)	0.8 (34)	3.39	0.0 (0)	0.6 (6)	3.36	0.3 (9)	0.1 (2)
Recall address and telephone number	3.42	10.3 (415)	0.8 (34)	3.05	0.0 (0)	1.1 (12)	3.07	0.7 (21)	0.4 (13)
Remember day and month	3.39	2.7 (111)	0.7 (30)	3.15	0.0 (0)	0.8 (8)	3.18	0.4 (13)	0.2 (6)
Where things are kept	3.51	0.8 (34)	0.7 (27)	3.21	0.0 (0)	1.			
Where to find things	3.59	0.9 (37)	0.8 (31)	3.42	0.0 (0)	1.			
How to work machines	3.37	18.6 (751)	1.1 (45)	3.08	0.1 (1)	1.			
How to use new gadget	3.45	28.9 (1170)	1.3 (52)	3.28	0.1 (1)	2.			
Learn new things	3.52	12.8 (520)	1.2 (48)	3.28	0.2 (2)	2.			
Follow a story	3.29	13.8 (559)	0.9 (37)	3.12	0.0 (0)	1.7 (18)	3.11	1.2 (39)	0.7 (23)
Everyday decisions	3.39	6.6 (269)	0.8 (33)	3.17	0.0 (0)	1.7 (18)	3.13	1.4 (44)	0.2 (7)
Handling money	3.37	8.7 (352)	0.7 (30)	3.06	0.2 (2)	1.5 (16)	2.96	6.2 (197)	0.6 (20)
Financial with bank	3.39	18.8 (761)	0.8 (34)	3.11	0.3 (3)	1.7 (18)	2.97	9.1 (291)	0.9 (30)
Everyday math	3.38	8.3 (336)	1.0 (39)	3.14	0.0 (0)	1.4 (15)	3.07	5.2 (165)	0.3 (10)
Intelligence to reason	3.35	1.8 (72)	0.9 (35)	3.14	0.0 (0)	1.1 (12)	3.09	0.6 (20)	0.2 (7)

No doesn't do option in ELSA – only spontaneous doesn't do responses

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High rates of “doesn’t do/never did” responses in India

	NO DECLINE (%)	DECLINE (%)	NEVER DID (%)	MISSING (%)
Remember things about family/friends (1)	58.1	39.1	1.0	1.8
Remember recent events (2)	60.4	37.3	0.3	2.0
Remember recent conversations (3)	59.4	38.4	0.2	2.0
Remember address and telephone number (4)	57.0	30.9	10.1	2.0
Remember day and month (5)	63.2	32.2	2.7	1.9
Remember where things usually kept (6)	54.6	42.7	0.8	1.9
Remember where to find things (7)	48.9	48.3	0.9	2.0
Ability to work with familiar machines (8)	53.8	25.6	18.3	2.3
Ability to learn a new gadget or machine (9)	41.0	27.9	28.6	2.5
Ability to learn new things in general (10)	46.0	38.9	12.7	2.4
Ability to follow a story in book/TV (11)	61.4	22.9	13.6	2.1
Ability to make decisions on everyday matters (12)	61.2	30.2	6.6	2.0
Ability to handle money for shopping (13)	61.7	27.8	8.6	1.9
Ability to handle financial matters (14)	53.4	26.0	18.6	2.0
Ability to handle everyday arithmetic (15)	60.6	29.1	8.2	2.1
Ability to reason through things (16)	66.4	29.8	1.8	2.1

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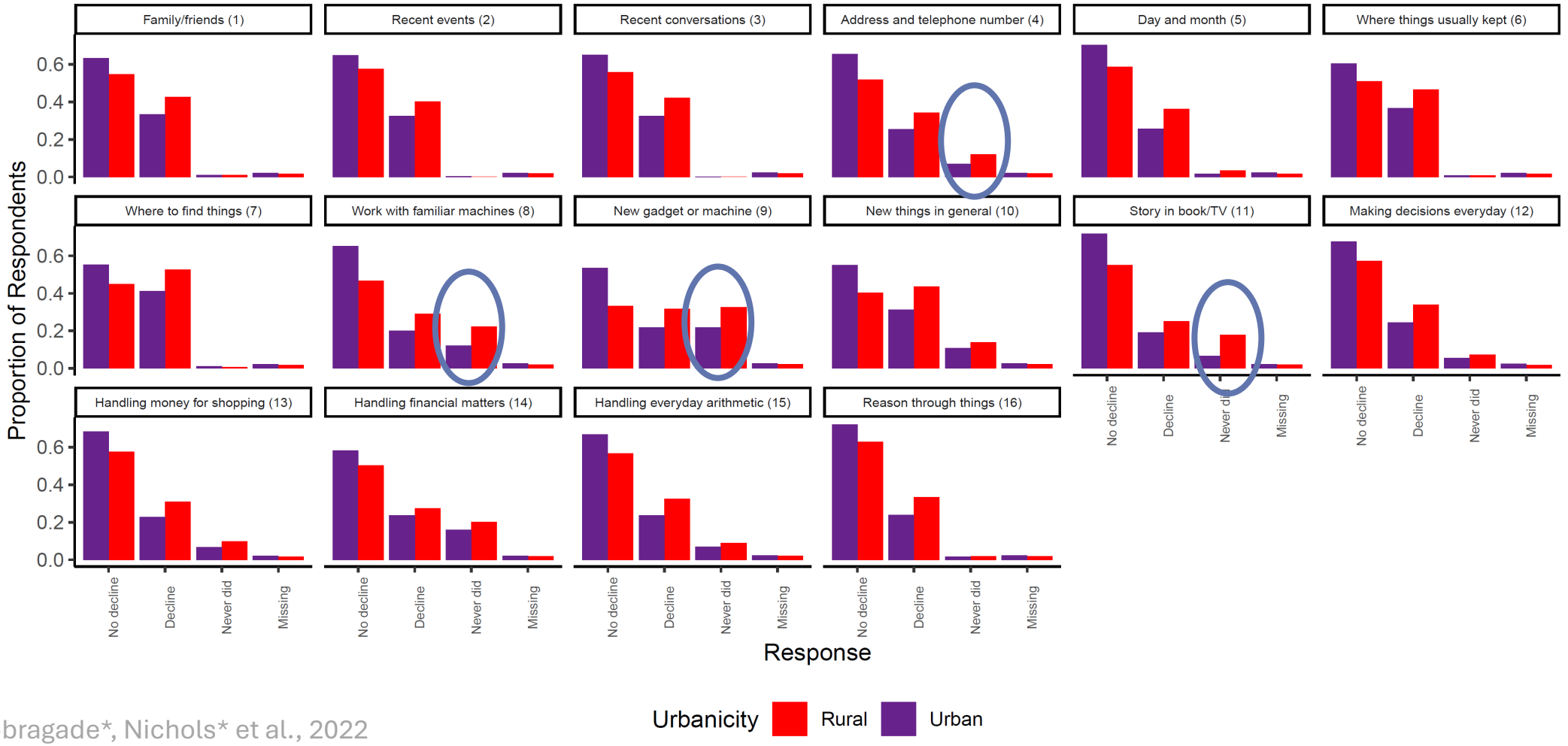
Correlates of “doesn’t do/never did” responses in India (urbanicity)



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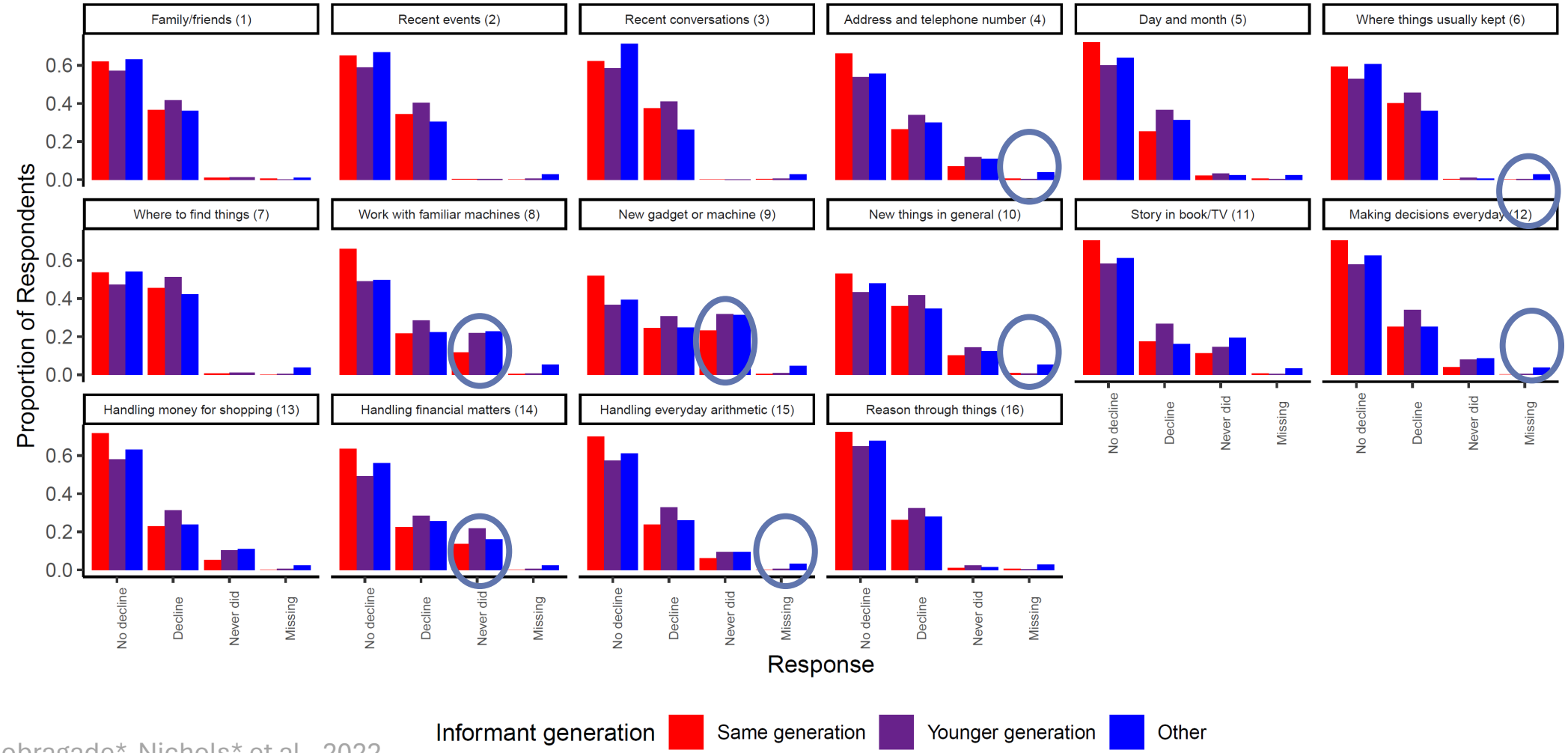
Correlates of “doesn’t do/never did” responses in India (informant generation)



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Correlates of “doesn’t do/never did” responses in India (informant generation)

IQCODE Item	Risk difference: Same generation	Risk difference: Younger generation (p-value)	Risk difference: Other informant (p-value)
Family/friends (1)	Reference	-0.00 (0.337)	**-0.02 (0.000)**
Recent events (2)	Reference	-0.00 (0.436)	-0.01 (0.017)
Recent conversations (3)	Reference	0.00 (0.320)	-0.00 (0.385)
Address and telephone number (4)	Reference	0.01 (0.474)	0.00 (0.985)
Day and month (5)	Reference	-0.00 (0.654)	-0.01 (0.400)
Where things usually kept (6)	Reference	**0.01 (0.040)**	-0.00 (0.994)
Where to find things (7)	Reference	0.00 (0.462)	**-0.01 (0.002)**
Work with familiar machines (8)	Reference	**0.05 (0.000)**	**0.07 (0.023)**
New gadget or machine (9)	Reference	**0.03 (0.050)**	0.04 (0.277)
New things in general (10)	Reference	0.01 (0.408)	-0.00 (0.864)
Story in book/TV (11)	Reference	-0.01 (0.361)	0.04 (0.148)
Making decisions everyday (12)	Reference	0.01 (0.088)	0.02 (0.235)
Handling money for shopping (13)	Reference	**0.02 (0.020)**	0.03 (0.184)
Handling financial matters (14)	Reference	0.02 (0.139)	-0.04 (0.179)
Handling everyday arithmetic (15)	Reference	0.01 (0.551)	0.01 (0.657)
Reason through things (16)	Reference	0.01 (0.184)	-0.00 (0.807)

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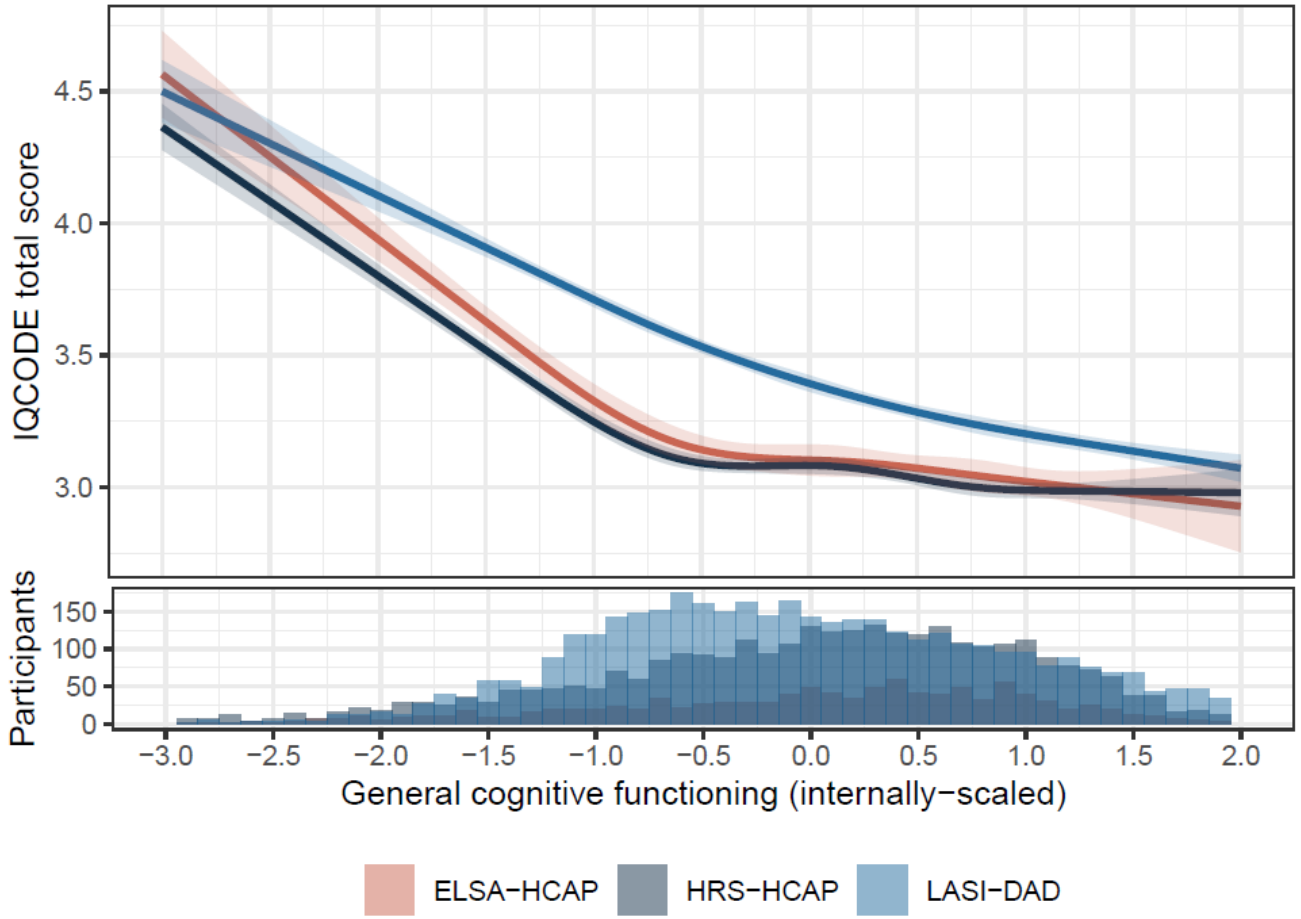
Comparisons across countries



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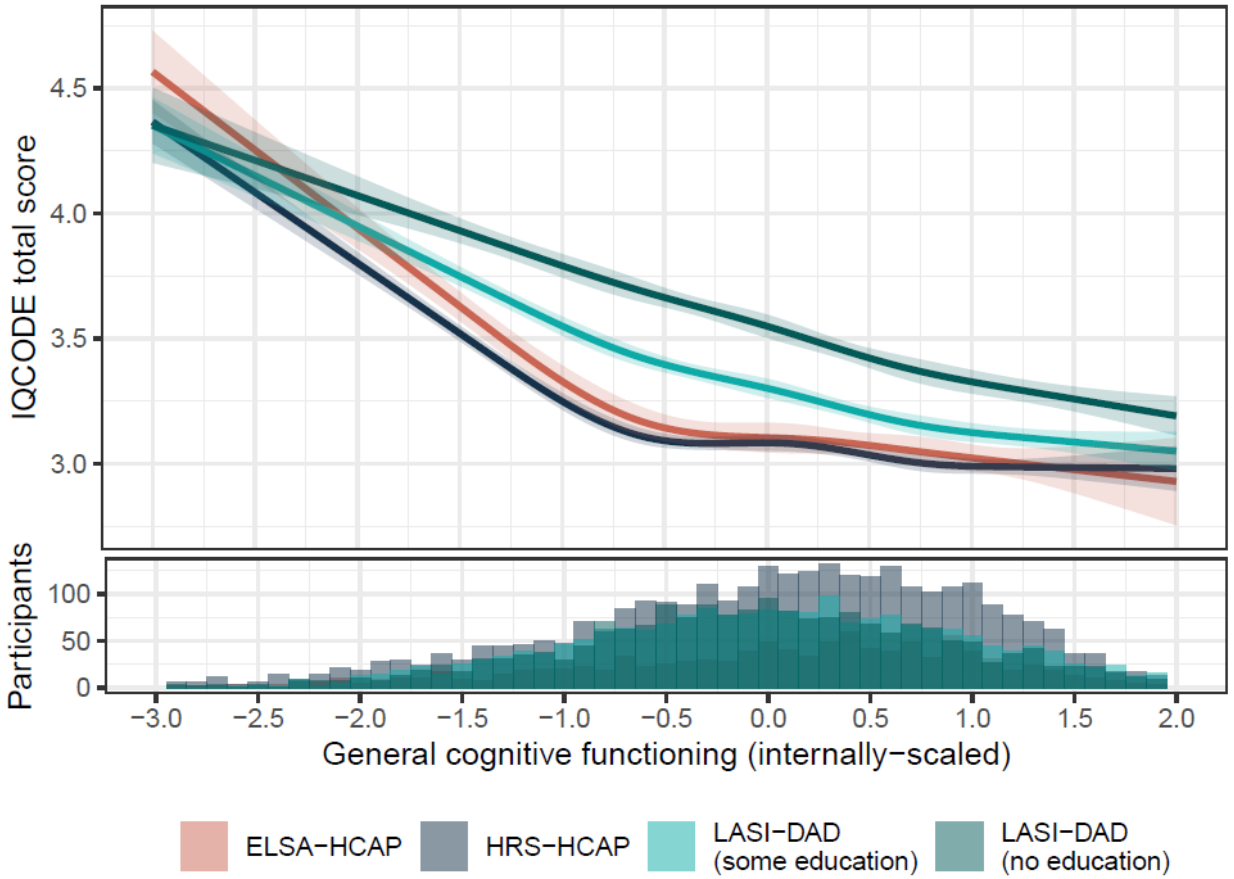
Multiple subpopulations in LMICs



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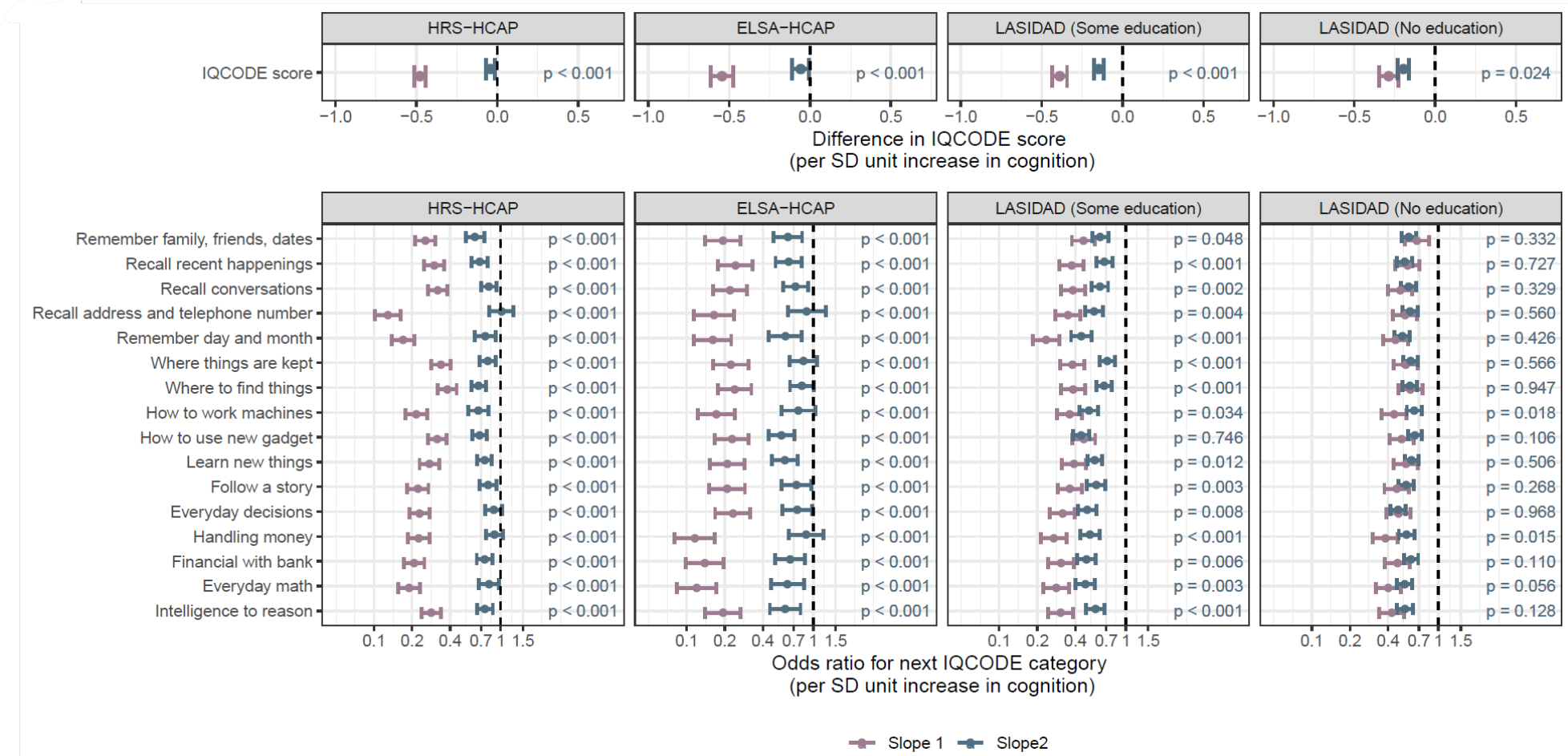
Quantitative evidence of differences



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Repetitiveness is a common complaint from field teams

Items on handling money

- Coping with small sums of money (Blessed Test)
- Handing money (10/66)
- Handling money (Jorm IQCODE)

Where things are kept

- Forgets where things are kept (CSID)
- Forgets where things are kept (Jorm IQCODE)

But different question stems

10/66: Have you noticed a change in [insert difficulty]?

Blessed Test: [Insert difficulty]. Does R have no loss, some loss, or severe loss? Is this due to physical reasons, mental reasons, or both?

CSID: Does R [insert difficulty]?

Jorm IQCODE: Compared with 10 years ago, how is R at [insert difficulty]?

How much do these differences in question stems lead to differences in responses? – An answerable, empirical question

Some evidence that shortening would not lead to loss of information

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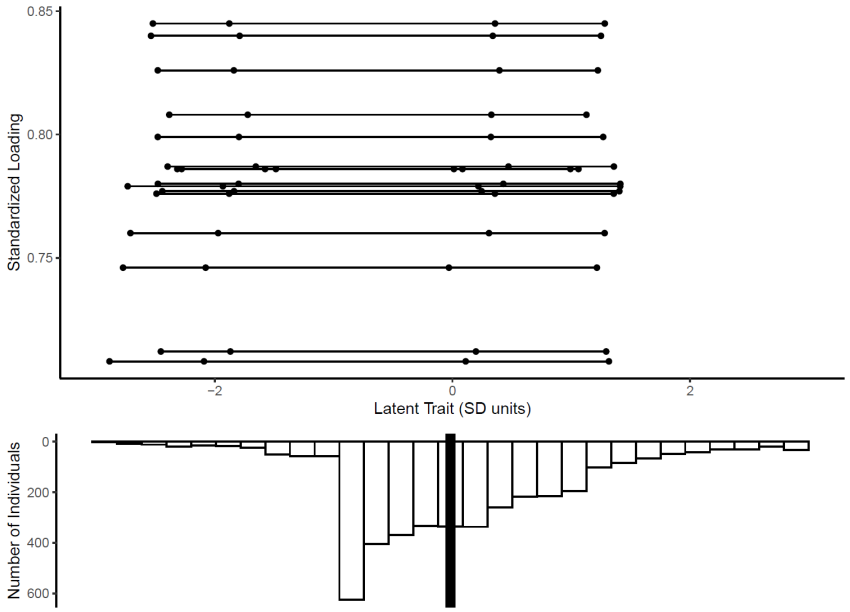
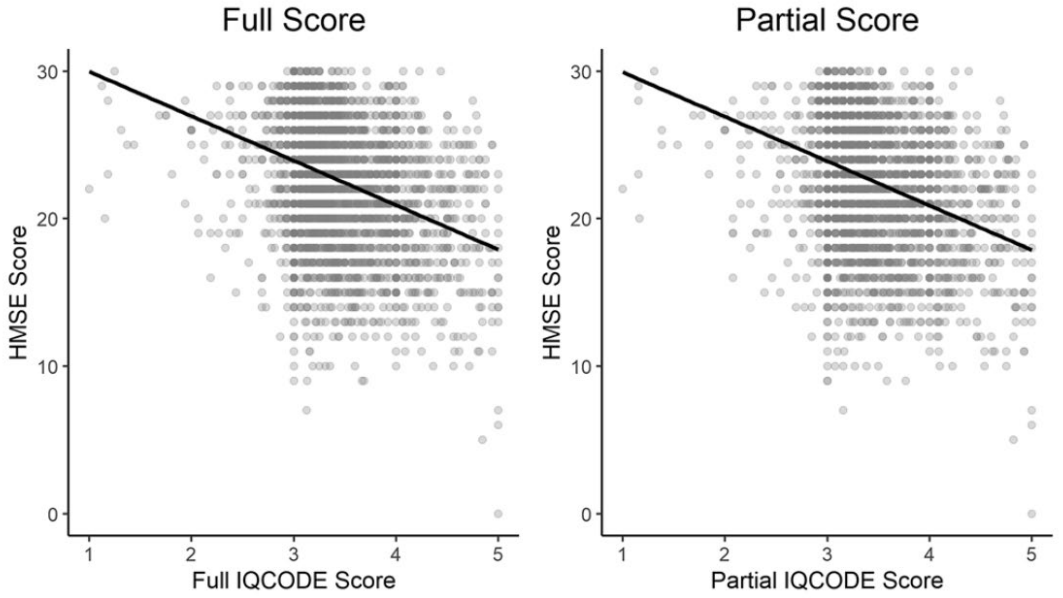
IQCODE In LASI-DAD





Partial IQCODE: excludes items on “remember address and telephone number,” “ability to work familiar machines,” and “ability to learn to use a new gadget or machine”

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Differences in types of informants

Variable	LASI-DAD	ELSA-HCAP	HRS-HCAP
Informant characteristics			
Age	44.3 (30.0 - 60.0) [11]	66.1 (58.0 - 76.0) [18]	64.7 (56.0 - 75.0) [1]
Female	63.6 (2572) [11]	64.6 (678) [2]	67.4 (2146) [0]
Relationship			
Spouse/partner	29.8 (1206)	56.4 (592)	45.2 (1438)
Child	28.0 (1134)	21.5 (226)	27.0 (859)
Child-in-law	27.1 (1098)	0.0 (0)	0.0 (0)
Other relative	11.5 (466)	7.1 (75)	8.3 (263)
Other	3.3 (132)	11.1 (117)	19.6 (623)
Missing	0.3 (11)	3.8 (40)	0.0 (0)
Generation			
Same generation	32.0 (1294)	70.4 (739)	62.3 (1983)
Younger	62.5 (2531)	22.6 (237)	29.4 (936)
Older/other	5.2 (211)	3.2 (34)	8.3 (264)
Missing	0.3 (11)	3.8 (40)	0.0 (0)
Frequency of contact			
Lives with respondent	75.5 (3057)	53.4 (561)	25.3 (806)
Daily	20.2 (819)	13.1 (138)	38.5 (1227)
1-Several times/week	2.0 (81)	24.3 (255)	24.0 (764)
Less than a few times/month	1.7 (67)	7.1 (75)	8.5 (269)
Missing	0.6 (23)	2.0 (21)	3.7 (117)
Caregiver	82.8 (3350) [12]	29.4 (309) [19]	31.1 (991) [13]
Years known respondent	32.0 (19.0 - 44.0) [20]	47.1 (40.0 - 57.0) [20]	29.5 (10.0 - 50.0) [20]

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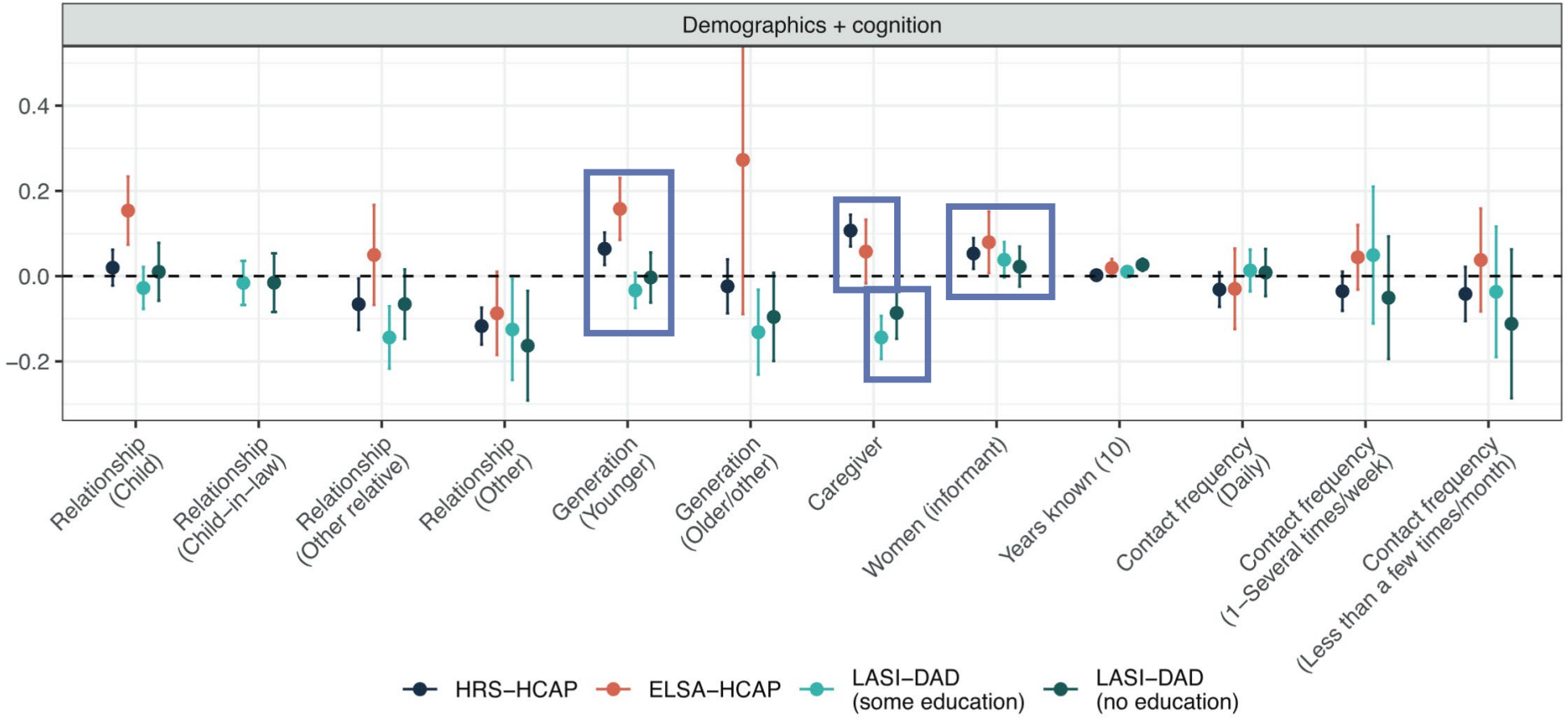
Impact of different types of informants



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Corrections for informant type?

Step 1: Identify a “reference” informant type in each country

- The informant type that knows the respondent best
- Identified using the association between objective cognition

Step 2: Estimate the impact of different informant characteristics

- Include interactions?
- Retain if reach a certain strength and/or significance

Step 3: Apply estimated differences to correct summary scores – assess impact of correction on algorithms and associations

Importance for improving cross-country comparisons, and longitudinal trajectories when informants change

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Recommendations

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CONTENT

- JORM IQCODE and Blessed Test are needed for algorithms
- CSID for comparisons to Mex-Cog
- Can individual batteries be shortened, particularly when there are potential issues with cultural relevance? Maybe!

PROCESS

- Present “doesn’t do/never did” options
- Collect information on informant characteristics – work is needed to generate adjustments

Thank you!

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The Gateway is a free public resource designed to facilitate cross-national and longitudinal studies on aging using the HRS international network of studies.

NIA/NIH 2R01 AG030153, also collaborate on 2R24AG048024, 1U24AG072699