

Examining the Predictors of Interviewers' Ratings of Respondents' Health

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Overview

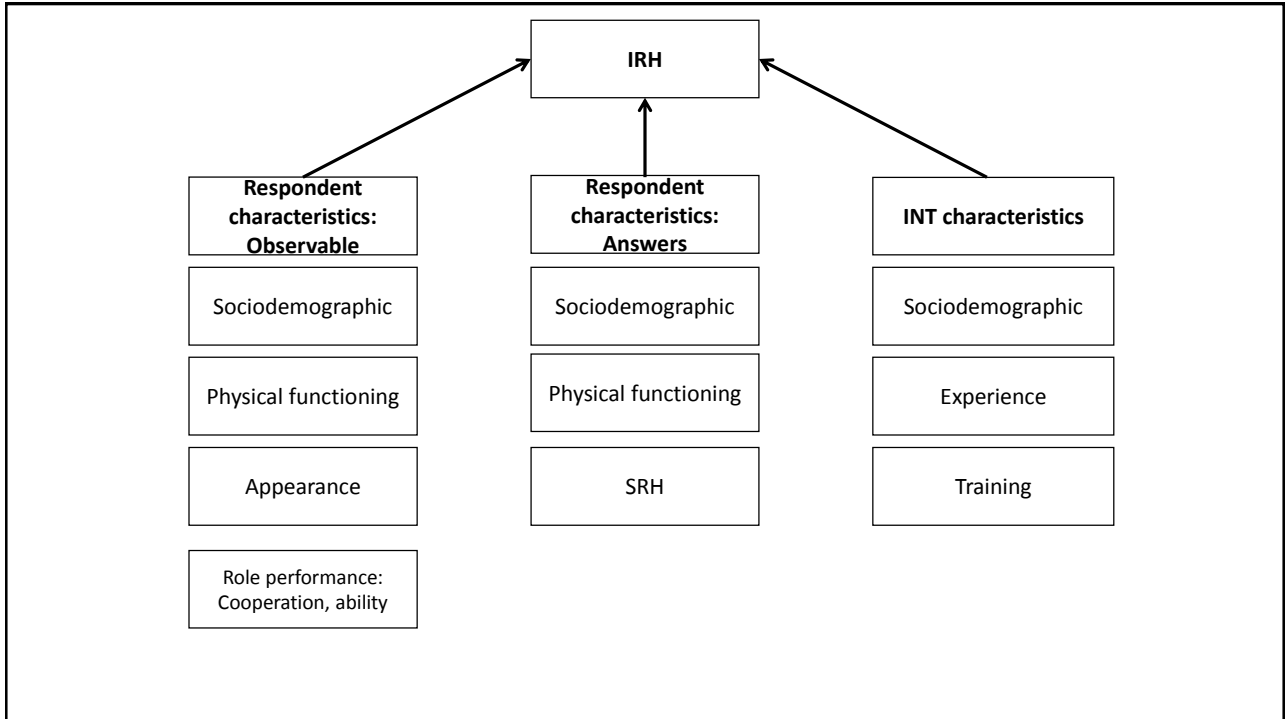
- Self-rated health (SRH) is a global rating of health:
 - “Would you say your health in general is excellent, very good, good, fair, or poor?”
- SRH is widely used to study health
 - Summarizes information across several health domains
 - Predicts morbidity and mortality

Overview

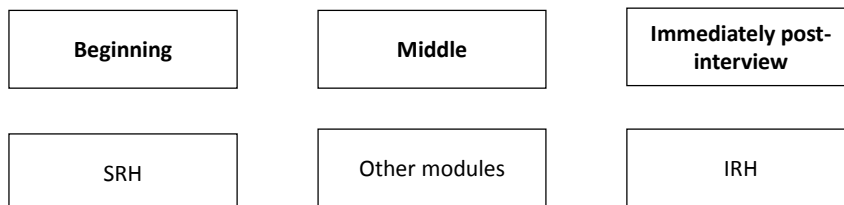
- Global health ratings made by someone else may provide additional information about the respondent's health status
- Interviewers' ratings of respondents' health (IRH)
 - "Would you say the respondent's health in general is excellent, very good, good, fair, or poor?"
- In Taiwan
 - IRH and SRH are moderately correlated
 - IRH and SRH are associated with different health correlates
 - IRH more strongly associated with mortality than SRH
(Smith and Goldman 2011, Todd and Goldman 2013)

Overview

- IRH may be a cost-effective health measure
- Consistent with the increasing use of interviewer observations in survey research
- We seek to explicate a model of the predictors of IRH that distinguishes among factors that INTs observe and those that are revealed in answering questions



Module Order



Research aims

- Assess predictors of IRH beyond SRH
 - R characteristics INT observes
 - R characteristics from answers to survey questions
 - INT characteristics
- Assess predictors of discrepancies between IRH and SRH
- Assess whether IRH and SRH are predictive of mortality

Data

- Wisconsin Longitudinal Study
 - 1/3 random sample of WI high school graduates in 1957
- Graduates and siblings interviewed in 2011 (face-to-face)
 - Mean age 71.4 years, range from 41-93
- Interviewers
 - N=67, 2-378 interviews

Results

- What predicts IRH beyond SRH?

What Predicts IRH beyond SRH?

Ordered Probit Regression of IRH on SRH and Health Correlates

Variable	Direction	
High blood pressure	-	***
Diabetes	-	***
Cancer	-	***
Heart condition	-	***
Mental health issue	-	***
Any activity limitation	-	***
Better functioning	+	***
Underweight	Null	
Overweight	Null	
Obese I	-	*
Obese II	-	***
Waist to hip ratio	-	***

Associated with increased/decreased probability of better IRH

Variable	Direction	
Help on anthropometric	Null	
Help on activity limitation	Null	
Help on health	-	*
Lung functioning	+	***
Chair rise	-	***
Grip strength	+	***
Walking	-	***
Asymmetry (INT rated)	Null	
INT is female	+	**
INT experience	Null	
Education	Null	
Married	Null	
Female	+	***
Age	Null	

Results

- What predicts discrepancy between IRH and SRH?

What Predicts IRH<SRH?

Variable	Direction	
High blood pressure	Null	
Diabetes	Null	
Cancer	Null	
Heart condition	Null	
Mental health issue	Null	
Any activity limitation	Null	
Better functioning	Null	
Underweight	Null	
Overweight	Null	
Obese I	+	*
Obese II	+	***
Waist to hip ratio	+	**

Associated with increased/decreased odds of IRH<SRH (INTs adjusting downward)

Variable	Direction	
Help on anthropometric	Null	
Help on activity limitation	Null	
Help on health	Null	
Lung functioning	-	*
Chair rise	Null	
Grip strength	-	***
Walking	Null	
Asymmetry (INT rated)	Null	
INT is female	-	*
INT experience	Null	
Education	Null	
Married	Null	
Female	-	***
Age	Null	

What Predicts IRH>SRH?

Variable	Direction
High blood pressure	+ **
Diabetes	- *
Cancer	Null
Heart condition	+ **
Mental health issue	Null
Any activity limitation	Null
Better functioning	- ***
Underweight	+ *
Overweight	Null
Obese I	Null
Obese II	Null
Waist to hip ratio	Null

Associated with increased/decreased odds of IRH>SRH (INTs adjusting upward)

Variable	Direction
Help on anthropometric	Null
Help on activity limitation	Null
Help on health	Null
Lung functioning	Null
Chair rise	Null
Grip strength	Null
Walking	- **
Asymmetry (INT rated)	Null
INT is female	+ *
INT experience	Null
Education	- ***
Married	Null
Female	Null
Age	Null

Results

- Is IRH a good predictor of subsequent mortality?

Survival analysis:
Age-specific mortality rate by SRH and IRH

	Model 1		Model 2		Model 3	
SRH Poor	18.63	***			3.48	**
SRH Fair	10.42	***			2.77	*
SRH Good	3.33	***			1.51	
SRH Very good	1.17				0.83	
SRH Excellent	Reference				Reference	
IRH Poor			56.32	***	23.57	***
IRH Fair			17.17	***	8.50	***
IRH Good			5.64	***	3.92	**
IRH Very good			2.82	*	2.49	
IRH Excellent			Reference		Reference	

Survival analysis:
Age-specific mortality rate by SRH and IRH, covariates

	Model 3		Model 4	
SRH Poor	3.48	**	2.72	
SRH Fair	2.77	*	2.64	*
SRH Good	1.51		1.20	
SRH Very good	0.83		0.50	
SRH Excellent	Reference		Reference	
IRH Poor	23.57	***	12.23	***
IRH Fair	8.50	***	6.50	**
IRH Good	3.92	**	4.02	**
IRH Very good	2.49		3.05	*
IRH Excellent	Reference		Reference	

Summary

- IRH is associated with health correlates net of SRH
- Discrepancies in IRH and SRH are associated with health correlates in interesting ways
- IRH stronger predictor than SRH of mortality rate

Summary

- Unclear what leads to the predictive ability of IRH:
 - Cognitive averaging of information revealed, observation of performance and functioning, both?
- Examine in future research in which we vary the placement of IRH
 - Beginning vs. end of survey