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Bridging Science, Policy, and Practice



Title: The Impact of Religious Activity on Life and Healthy Life Expectancy in four European Countries and Israel
Session: Religiosity, Health and Aging in International and Cross-Cultural Perspective

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The Impact of Religious Activity on Life and Healthy Life Expectancy in four European Countries and Israel

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DISCLOSURE

I have no relevant commercial relationships to disclose.



Background

- A positive link between religion and physical health and survival.
- Limitation
 - Focus on the US mostly.
 - Cross-sectional and/or examined health outcomes or mortality separately, but not in combination.



Purpose

- To examine the effect of religious activity on health and mortality jointly by estimating total, healthy and unhealthy life expectancy across four European countries and Israel from SHARE data.



Research questions

- Is religious activity associated with total life expectancy among older adults?
- Is religious activity associated with healthy life expectancy among older adults?
- Does the association vary across different dimensions of health?



Data

- The Survey of Health, Ageing and Retirement in Europe (SHARE)
 - Wave 1 – 6 (2004-2015)
- Religious activity (baseline)
 - No - No religious activity in the last month or less often in the past 12 months.
 - Yes - Almost every month/week/day.
- Countries
 - Sweden, Spain, Italy, Poland, Israel
 - LE at 50 close to LE in 2010 from Human Mortality Database (www.mortality.org)



Outcome Measures

- Disability
 - Activities of Daily Living (ADL) – 6 items
 - Dressing, bathing, eating, walking across a room, getting in/out of bed, using the toilet
 - Instrumental Activities of Daily Living (IADL) – 7 (w1,w2,w4,w5) or 9 (w6) items
 - Using a map, preparing meals, shopping for groceries, making telephone calls, taking medications, doing work around the house or garden, managing money, (leaving the house independently and accessing transportation services, doing personal laundry)
 - Respondents who have any difficulty performing at least one ADL or IADL are defined as unhealthy; otherwise as healthy.



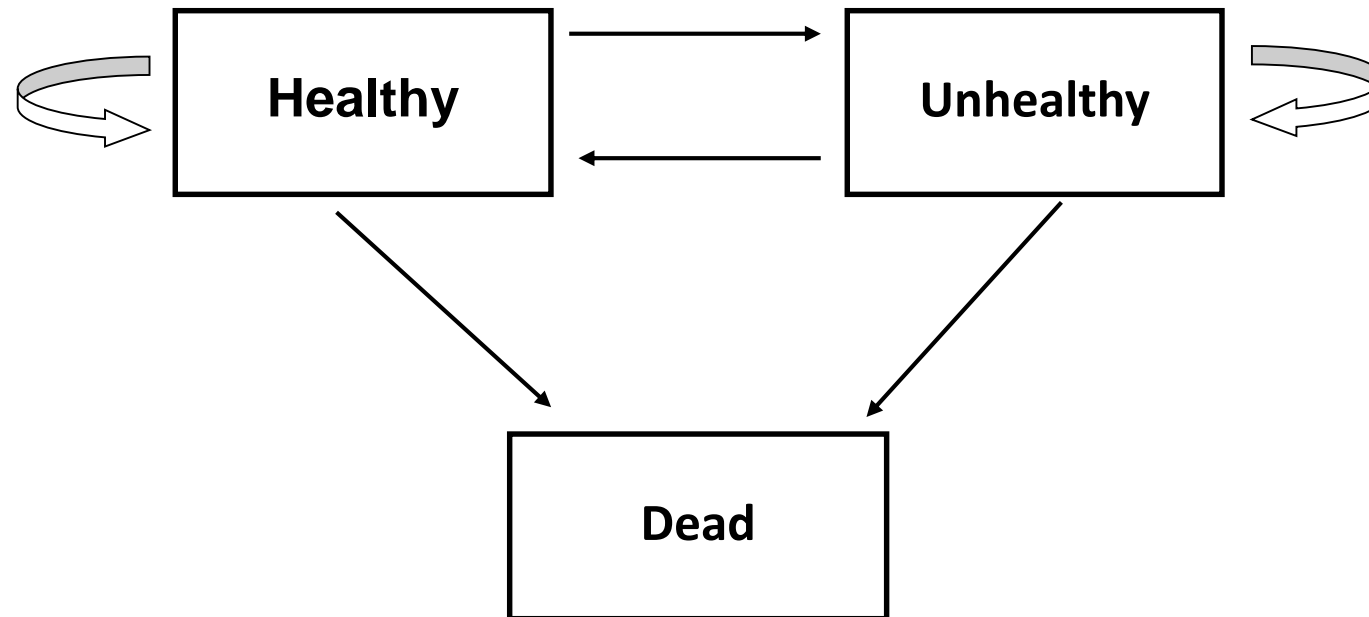
Outcome Measures

- Self-perceived general health (SPH)
 - Would you say your health is ...
 - Excellent, Very good, Good → Healthy
 - Fair, Poor → Unhealthy
- Global Activity Limitation Instrument (GALI)
 - “For the past six months at least, to what extent have you been limited because of a health problem in activities people usually do?”
 - Severely limited, Limited, but not severely → Unhealthy
 - Not limited → Healthy



Method

- SPACE (Stochastic Population Analysis for Complex Events) program (sites.utexas.edu/space/).





Men – Disability

Country	Religious Activity	TLE	95% CI	HLE	95% CI	ULE	95% CI	HLE(%)
Sweden	No	32.2 +	(30.5-33.9)	27.6 +	(26.0-29.1)	4.7	(4.0-5.3)	85.7
	Yes	36.4	(33.6-39.2)	31.0	(29.0-32.9)	5.4	(3.4-7.4)	85.2
Spain	No	29.3 *	(27.8-30.8)	24.6 *	(23.2-26.0)	4.7	(4.0-5.3)	84.0
	Yes	33.5	(30.8-36.1)	28.1	(26.4-29.8)	5.4	(3.3-7.5)	83.9
Italy	No	32.3 *	(30.8-33.7)	27.4 *	(26.1-28.7)	4.8	(4.1-5.6)	84.8
	Yes	36.5	(34.2-38.8)	30.9	(28.8-32.9)	5.6	(3.6-7.7)	84.7
Israel	No	31.3 *	(29.8-32.8)	24.1 *	(22.7-25.6)	7.1	(6.1-8.1)	77.0
	Yes	35.7	(33.2-38.3)	27.4	(25.6-29.2)	8.3	(5.8-10.8)	76.8
Poland	No	26.6 *	(25.1-28.1)	21.7 *	(20.4-22.9)	4.9	(4.2-5.6)	81.6
	Yes	30.7	(28.2-33.3)	25.0	(23.4-26.7)	5.7	(3.8-7.6)	81.4

* p<0.05, + p<0.1



Men – SPH

Country	Religious Activity	TLE	95% CI	HLE	95% CI	ULE	95% CI	HLE(%)
Sweden	No	31.3 *	(29.7-32.8)	8.4	(7.7-9.1)	22.9	(21.4-24.3)	26.8
	Yes	35.3	(33.1-37.5)	9.0	(7.0-11.0)	26.3	(23.5-29.1)	25.5
Spain	No	29.4 *	(28.0-30.9)	10.7	(9.5-12.0)	18.7 +	(17.5-19.9)	36.4
	Yes	33.4	(31.0-35.7)	11.4	(9.5-13.3)	22.0	(19.7-24.4)	34.1
Italy	No	31.9 +	(30.2-33.6)	12.6	(11.0-14.1)	19.4	(17.7-21.0)	39.5
	Yes	35.8	(33.4-38.2)	13.2	(10.6-15.9)	22.6	(19.9-25.3)	36.9
Israel	No	31.5 *	(29.8-33.2)	11.6	(10.0-13.2)	19.9 +	(18.3-21.5)	36.8
	Yes	35.5	(33.3-37.6)	12.2	(9.8-14.6)	23.2	(21.3-25.1)	34.4
Poland	No	26.7 +	(24.7-28.8)	13.8	(11.9-15.7)	13.0 *	(12.1-13.9)	51.7
	Yes	30.4	(27.6-33.2)	14.7	(11.8-17.5)	15.7	(14.2-17.2)	48.4

* $p < 0.05$, + $p < 0.1$



Men – Gali

Country	Religious Activity	TLE	95% CI	HLE	95% CI	ULE	95% CI	HLE(%)
Sweden	No	32.2 +	(30.5-33.8)	20.6	(19.1-22.1)	11.6	(10.2-13.0)	64.0
	Yes	36.3	(33.4-39.2)	23.0	(19.6-26.4)	13.3	(10.3-16.3)	63.4
Spain	No	29.5 +	(28.0-31.0)	20.3	(18.8-21.7)	9.3	(8.3-10.2)	68.8
	Yes	33.6	(30.8-36.5)	22.9	(20.1-25.6)	10.8	(7.9-13.6)	68.2
Italy	No	32.0	(30.2-33.7)	19.4	(18.0-20.7)	12.6	(11.2-14.1)	60.6
	Yes	36.1	(32.8-39.5)	21.7	(18.3-25.1)	14.4	(10.7-18.2)	60.1
Israel	No	31.8 +	(30.2-33.4)	21.0	(19.3-22.7)	10.8	(9.2-12.4)	66.0
	Yes	35.8	(32.9-38.7)	23.4	(19.4-27.4)	12.4	(8.9-16.0)	65.4
Poland	No	26.5 +	(24.6-28.5)	12.9	(10.1-15.7)	13.6	(12.1-15.2)	48.7
	Yes	30.6	(27.8-33.4)	14.7	(10.3-19.1)	15.9	(11.8-20.1)	48.0

* $p < 0.05$, + $p < 0.1$



Summary of results for men

Disability

Country	TLE	HLE	ULE
Sweden	4.2 +	3.4 +	0.7
Spain	4.2 *	3.5 *	0.7
Italy	4.2 *	3.5 *	0.8
Israel	4.4 *	3.3 *	1.2
Poland	4.1 *	3.3 *	0.8

SPH

Country	TLE	HLE	ULE
Sweden	4.0 *	0.6	3.4
Spain	4.0 *	0.7	3.3 +
Italy	3.9 +	0.6	3.2
Israel	4.0 *	0.6	3.3 +
Poland	3.7 +	0.9	2.7 *

Gali

Country	TLE	HLE	ULE
Sweden	4.1 +	2.4	1.7
Spain	4.1 +	2.6	1.5
Italy	4.1	2.3	1.8
Israel	4.0 +	2.4	1.6
Poland	4.1 +	1.8	2.3

Note: Difference = Yes-No; * $p < 0.05$, + $p < 0.1$



Conclusions

- Religious activity is associated with total life expectancy for men.
- Religious activity is associated with healthy (or unhealthy) life expectancy for men.
- The increase of TLE due to religious activity (for men):
 - Disability: mostly from the increase of HLE
 - SPH: mostly from the increase of ULE
 - Gali: from both the increase of HLE and the increase of ULE
- No significant results for women.



Limitations

- Quality of mortality data
- Inconsistency of IADL between w6 and previous waves
- No health information in w3
- Limited measures of religiosity in SHARE



Future direction

- To investigate the possible mechanisms (eg., sociodemographic covariates) that may explain the association between religious activity and total/healthy/unhealthy life expectancy.



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- Project website:
 - <https://globalagingandcommunity.com/religion-and-health-expectancy/>



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Summary of results for women

Disability

Country	TLE	HLE	ULE
Sweden	1.2	0.4	0.7
Spain	1.9	0.8	1.1
Italy	2.2	0.9	1.3
Israel	2.3	0.9	1.5
Poland	1.1	0.4	0.8

SPH

Country	TLE	HLE	ULE
Sweden	1.3	1.0	0.4
Spain	1.8	1.4	0.3
Italy	2.0	1.6	0.4
Israel	1.6	1.3	0.5
Poland	1.9	1.4	0.5

Gali

Country	TLE	HLE	ULE
Sweden	2.1	1.5	0.6
Spain	2.1	1.5	0.7
Italy	2.3	1.6	0.8
Israel	2.0	1.4	0.5
Poland	2.2	1.4	0.8

Note: Difference = Yes-No; * $p < 0.05$, + $p < 0.1$