Patterns of Widowhood Mortality

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Research Questions

1. Why do widows face a higher mortality risk than married individuals of the same age?

2. Do the same factors predict mortality among the married and the widowed?

Background

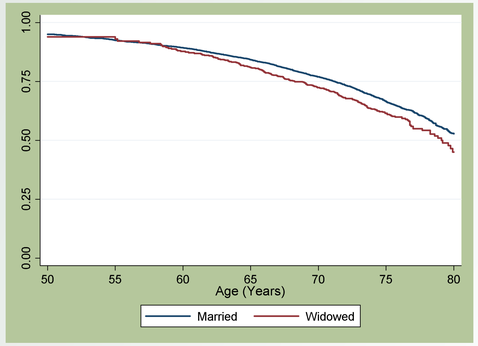
-Death of a spouse increases probability of death for the surviving spouse, relative to same aged married women or men.
-3 pathways may mediate the effect of widowhood on mortality:
- **-Social Support:** High levels of social support are associated with lower mortality. The most important support is often a spouse, or possibly children.
- **-Education**: Education is associated with longer life. However, previous research does not find that higher levels SES are protective against mortality among widows.
- **-Psychosocial Factors**
  - -Role theory: The surviving spouse struggles to compensate for lost material & task support, raising mortality risk.
  - -Caregiver burden: Caring for an ill spouse increases mortality risk after the death of a spouse.
  - -Grief: The "broken heart" hypothesis links becoming widowed to a decline in health of surviving spouse.

Data & Methods

-Data are from the Health and Retirement Study (HRS)
- -Sample restricted to the 1992 recruitment cohort and their spouses
- -Sample further restricted to include only those respondents married at baseline in 1992
- -Follow-up information extends through Wave 9 (2008) for a maximum of 16 years

-Method is Cox proportional hazard models
- -Respondents enter analysis at age of first interview
- -Observation continues until age at last interview, age at divorce, or age at death
- -All models control for age & race/ethnicity
- -Marital status is a time-dependent variable
- -Key predictors include years of education, number of children, and type of spouse death (classified based on information from the exit interview)

Kaplan-Meier Survival Estimates



Descriptive Statistics, HRS Sample

Mean or Proportion (s.d.)

	Married Respondents n=9,955
Demographic Characteristics	
% Male	49.8%
Age at entry	55.6 (6.0)
Race/Ethnicity	
White	77.1
Black	12.0
Hispanic	8.8
Other/Missing	2.2
Number of children	3.5 (2.1)
% childless	4.4
Years of Education	
Baseline self-rated health=fair or poor	19.7
Became widowed	1,532
Final Status	
Dead	1845
Died married	1631
Died widowed	214

Question 1: Widows' Mortality

Hazard Ratio of Mortality, HRS Sample

	Model 1	Model 2: Model 1 + Children	Model 3: Model 2+ Education	Model 4: Model 3+ Health
Marital Stat. (ref=married)				
Widowed	1.47***	1.45***	1.41***	1.32***
Gender (ref=male)				
Female	0.56***	0.56***	0.56***	0.57***
Children^				
0		1.55***	1.55***	1.41***
1		1.39**	1.37**	1.26*
2-3		Ref	Ref	Ref
4		1.14	1.12	1.09
5+		1.27***	1.18**	1.12
Yrs of Education			0.94***	1.00
SR Health^				
Good+				Ref
Fair or poor				5.32***
generalized R^2	1.6	2.0	2.6	12.8

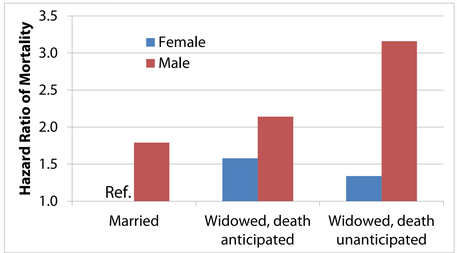
All models control for race/ethnicity and age
^denotes time-varying

-Children do not explain the disadvantage of widows.

-Education explains only a modest portion (~10%) of the disadvantage of widows.

-Health explains an additional 22% of the mortality disadvantage of widows.

The Effect of "Death Type" and Gender



-Men and women respond differently to whether the decedent spouse's death was anticipated or unanticipated.

-Consistent with predictions from role theory, men fare worse when their wives die unexpectedly.

-Women, consistent with caregiving burden, do worse when their husbands' death was anticipated.

-Men do worse as widows than women.

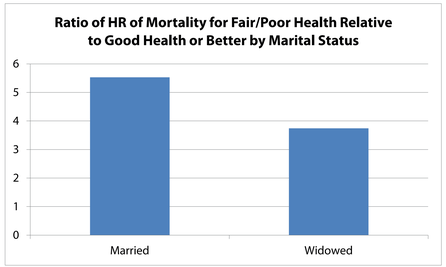
-Note: Missing death type was imputed using ICE.

Question 2: Mortality Predictors

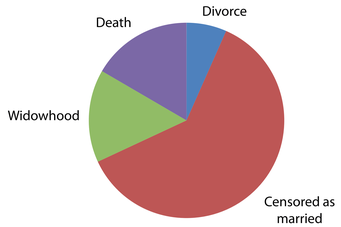
Factor	Interaction with Widowhood?
Gender	No
Number of Children	No
Years of Education	No
Health	Yes

-Contrary to expectations, the effects of gender, children, and education on mortality are not different for widows compared to married people.

-Health interacts with marital status, such that being in fair or poor health is less harmful for widows that it is for married individuals.



Exits from Marriage



Conclusions

-Widows in this sample face a 47% higher risk of mortality than married individuals of the same age. Number of children or education do not explain much of the disadvantage.

-Health explains some of the difference, though this is difficult to interpret, as self-rated health may be related to marital status. Becoming widowed may be associated with deteriorating health; alternately, those in worse health may be more likely to become widowed.

-In contrast to other studies, here I find education is protective in both widowhood and married life. More highly educated widows are not disadvantaged relative to less highly educated widows.

-Being in fair or poor health is less harmful for widows. One explanation is that widows define health differently; another is that widows decline more quickly than the married.

Becoming widowed is harmful for health. The health and mortality of others can have important health consequences for individuals.

Penn Demography