

Chapter 32

Gender, Aging and Widowhood

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Introduction

Widowhood is widely regarded as a women's issue. In all developed and nearly all developing nations, women are more likely than men to survive the death of their spouse, reflecting men's higher rates of mortality and the tendency of women to marry men slightly older than themselves. Women also are more likely than men to remain unmarried after their spouse dies, due both to a highly skewed sex ratio among older adults and men's greater desire to remarry after losing a spouse. Moreover, widowhood has increasingly become an *older women's* issue; as life expectancy has increased steadily over the past century in virtually every nation, spousal loss overwhelmingly befalls older adults. As such, widowhood has important consequences for the living arrangements and physical, economic and psychological well-being of older adults. The distinctive ways that older men and women experience widowhood are shaped by demographic factors, including the timing of their spouse's death; the number and gender distribution of their children; the living arrangements, employment patterns and migration patterns of their children; one's own physical health and functioning in later life; cultural context; and gender-typed socialization processes that occur over the life course.

In this chapter, we: (1) document gendered patterns of mortality and spousal loss in developed and devel-

oping nations; (2) describe the marital status and living arrangement patterns of older adults in developed and developing nations; (3) highlight the data needs and analytic tools required for effectively documenting the consequences of spousal loss; (4) discuss the physical and psychological consequences of widowhood for older men and women; and (5) set forth recommendations for future research on gender, aging and widowhood.

Gender and Aging

Gendered Patterns of Mortality

Global population aging is "not gender-neutral" (Mirkin and Weinberger 2001). Women account for the majority of older persons in almost every country in the world. The main reason for this advantage is the gender gap in mortality. Although more boys than girls are born, males have higher mortality rates than females at every stage of the life course, reflecting males' weaker cardiopulmonary systems in infancy and higher levels of risk-taking behavior, including smoking, alcohol consumption and physically strenuous work in adulthood (Verbrugge 1985). As a result, female life expectancy is higher than male life expectancy in nearly every nation, although the magnitude of this gap varies over the life course and across regions.

Life expectancy is a statistical projection of the length of an individual's life. Specifically, it is an estimate of the average number of additional years a person can expect to live if the age-specific death rates for a given year prevail for the rest of his or her life. It is a hypothetical measure because it is based on current death rates, yet actual death rates change over the course of a

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person's life. Consequently, an individual's life expectancy changes as he or she ages. Demographers typically calculate two different life expectancy measures; life expectancy at birth, or the number of years a baby born in a given year can expect to live; and one's life expectancy at age n , or the number of additional years an individual who is n years old can expect to live.

Life expectancy at birth does not simply equal life expectancy at age n plus n additional years of life, because age-specific life expectancy is selective. That is, individuals who have survived the potentially dangerous years of infancy and childhood are more likely to have an extended life span than the average member of their birth cohort. For example, life expectancy at birth for a given cohort may be age 75, yet 75 year olds in that birth cohort can probably expect to live another ten years. Life expectancy at birth is lower than life expectancy at 75, because it includes in its calculations those babies who went on to die during infancy, adolescence, or young adulthood. Youthful deaths are particularly prevalent among men and thus account in large part of their overall life expectancy disadvantage relative to women. As a result, the gender gap in life expectancy at birth is typically much larger than the gender gap in life expectancy at older ages.

Gender differences in life expectancy at birth are presented in Table 32.1 This table shows male and female life expectancy at birth in 34 selected countries, as well as the size of the gap (in years). The average gap between the sexes is roughly seven years, yet this gap ranges from just 1.2 years in India to more than 11 years in Kazakhstan. The gender gap is smallest in developing nations, particularly in South Asian and Middle Eastern societies where cultural factors such as the low social status of women and preference for male offspring contribute to men's relatively higher life expectancy at birth. In some developing nations, particularly parts of Sub-Saharan Africa, maternal mortality rates contribute to women's relatively low life expectancy (Tabolski 2004). By contrast, the large gender gap in Kazakhstan (and elsewhere in the former Soviet Union) is attributed to social upheaval following the demise of the former Soviet Union, where men's (and particularly younger men's) risk of death is heightened by increased homicide and accident rates, excessive alcohol consumption, poor diet and both environmental and workplace degradation (Virganskaya and Dmitriev 1992; Murray and Bobadilla 1997).

The male-female gap in life expectancy at older ages is markedly smaller than the gap at birth, although women's advantage persists. At age 60, the average man in today's world can expect to live another 17 years while the average woman can expect to survive for 21 more years. As revealed in Table 32.2, the gender gap is smaller in less developed regions and averages roughly two years (versus four years in more developed regions). The gender gap at age 60 is considerably smaller than at earlier life course stages because it is not skewed by youthful male deaths; moreover, men who manage to withstand the adversities of early life and survive until age 60 may be particularly hardy (Kobasa 1979–1993). Demographers predict that the gender gap may increase in future decades. Processes of urbanization and modernization in many developing countries are accompanied by increases in alcohol and tobacco use, as well as vehicular and industrial accidents – each of which affects men more often than women (Kinsella and Velkoff 2001). Additionally, as the educational and literacy gap between men and women erodes in developing nations, women are expected to enjoy further strides in health and life expectancy, as education is a powerful predictor of health status and survival (Liu et al. 1998).

Sex Ratios in Later Life

As a consequence of the gender gap in infant, child and young adult mortality rates, women usually begin to outnumber men by ages 30–40 and the sex ratio becomes increasingly imbalanced as individuals age (Tabolski 2004). A sex ratio is a common measure that captures a population's gender composition; it is conventionally measured as the number of men per 100 women in a given population or age category. Ratios greater than 100 indicate more men than women, whereas ratios under 100 indicate more women than men in a given population. Although sex ratios typically reflect gender differences in life expectancy due to biological aging, historical shocks such as wars, mass migrations, or epidemics that disproportionately affect one gender also may contribute. Developed countries tend to have lower sex ratios at older ages than developing countries, yet in nearly every nation women outnumber men. In the year 2000, the global sex ratio for the population age 60 and older was 81 males per 100 females. Thus, there were approximately 63 million

Table 32.1 Life expectancy at birth in selected countries by gender, 2000

	Men	Women	Gender gap (years)
DEVELOPED COUNTRIES			
Western Europe			
Austria	74.5	81.0	6.5
Belgium	74.5	81.3	6.8
Denmark	74.0	79.3	5.3
France	74.9	82.9	8.0
Germany	74.3	80.8	6.5
Norway	75.7	81.8	6.1
Sweden	77.0	82.4	5.4
United Kingdom	75.0	80.5	5.5
Southern and Eastern Europe			
Czech Republic	71.0	78.2	7.2
Greece	75.9	81.2	5.3
Hungary	67.0	76.1	9.1
Italy	75.9	82.4	6.5
Spain	75.3	82.5	7.2
Other			
Australia	76.9	82.7	5.8
Japan	77.5	84.1	6.6
United States	74.2	79.9	5.7
DEVELOPING COUNTRIES			
Africa			
Egypt	61.3	65.5	4.2
Ghana	56.1	58.8	2.7
Mali	45.5	47.9	2.4
South Africa	50.4	51.8	1.4
Uganda	42.2	43.7	1.5
Congo (Brazzaville)	44.5	50.5	6.0
Asia			
China	69.6	73.3	3.7
India	61.9	63.1	1.2
Kazakhstan	57.7	68.9	11.2
South Korea	70.8	78.5	7.7
Syria	67.4	69.6	2.2
Thailand	65.3	72.0	6.7
Latin America			
Argentina	71.7	78.6	6.9
Brazil	58.5	67.6	9.1
Costa Rica	73.3	78.5	5.2
Chile	72.4	79.2	6.8
Mexico	68.5	74.7	6.2
Venezuela	70.1	76.3	6.2

Sources: Kinsella, and Velkoff (2001). U.S. Census Bureau, Series P95/01-1, An Aging World: 2001. Washington, D. C. U.S. Government Printing Office.

Table 32.2 Life expectancy at age 60 for men and women and the gender gap in life expectancy, projections for period 2005–2010

	Men	Women	Gender gap (years)
World	17	21	4
More Developed Regions	19	23	4
Less Developed Regions	17	19	2
Least Developed Regions	15	17	2
Africa	15	17	2
Asia	17	20	3
Europe	18	22	4
Latin America/Caribbean	19	22	3
North America	20	24	4
Oceania	20	24	4

Sources: *Living Arrangements of Older Persons. World Population Prospects: The 2004 Revision (ST/ESA/SER.A/244)* and *Living Arrangements of Older Persons around the World (STE/ESA/SER.A/240)*.

Note: *More developed regions* comprise all regions of Europe, plus Northern America, Australia/New Zealand and Japan. *Less developed regions* comprise all regions in Africa, Asia (excluding Japan), Latin America and the Caribbean plus Melanesia, Micronesia and Polynesia. *Least developed regions* include 50 countries: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Democratic Republic of Timor-Leste, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, São Tomé and Príncipe, Senegal, Sierra Leone, Solomon Islands, Somalia, Sudan, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu, Yemen and Zambia. These countries are also included in the less developed regions.

more women ages 60 and older than there were men of the same age (United Nations 2005a).

Table 32.3 presents sex ratios at ages 60 and 80, by region. In more developed regions, the sex ratio at ages 60 and older and 80 and older are 72 and 46 respectively, meaning that there are 1.4 women for every man age 60 and older and 2.2 women for every man age 80 and older. The sex ratios are most skewed in Eastern and Western Europe, reflecting long-term consequences of heavy war losses during World War II. Women account for 80 per cent of the oldest old (aged 80 and older) in Russia and 74 per cent in Germany (Kinsella and Velkoff 2001).

In developing nations, by contrast, the sex ratios are considerably higher; in Eastern and South Central Asia, sex ratios approach 90 for persons ages 60 and older. In part, this reflects the more modest gender gap in life expectancy, described above. These aggregate statistics may also reflect distinctive patterns of discrimination against girls and women in certain nations, including insufficient investment in women's education, reproductive health and nutrition over the life course (Mason 1993; Presser and Sen 2000). The U. S. Census Bureau has identified 18 nations in Asia and Africa where older men outnumber older women (see Table 32.4).

Caution should be taken in presuming that these ratios necessarily reflect women's disadvantaged life

expectancy, however; these patterns may be statistical artifacts. Older women may be undercounted to a greater degree than men in some national censuses, in cases where male householders fail to tell census enumerators about all household members (particularly older women). Patterns of male labor migration also may affect these ratios, if male migrants remain in their host countries after reaching age 65 (Kinsella and Velkoff 2001). This explanation is particularly appropriate for countries like Qatar, United Arab Emirates and Kuwait, which rely heavily on male migrant workers in the oil industry.

Family and Household Characteristics of Older Men and Women

Marital Status in Later Life

Because of men's lower life expectancy, women are more likely than men to lose a spouse to death. Widows are far less likely than widowers to remarry because of the dearth of opposite sex peers, as evidenced by the skewed gender ratios described above. Addition-

Table 32.3 Sex ratio (number of men per 100 women) for individuals age 60 and older and age 80 and older, 2004

Major area or region	Aged 60+	Aged 80+
World	82	55
More developed regions	72	46
Less developed regions	88	66
Least developed regions	85	73
Africa	83	67
Eastern	83	69
Middle	80	64
Northern	85	70
Southern	70	42
Western	87	73
Asia	88	63
Eastern	88	54
South-eastern	84	70
South-central	90	81
Western	85	66
Europe	69	43
Eastern	57	33
Northern	78	50
Southern	76	52
Western	75	42
Latin America and the Caribbean	82	66
Caribbean	86	74
Central America	85	72
South America	80	63
North America	78	54
Oceania	87	59

Sources: *Living Arrangements of Older Persons. World Population Prospects: The 2004 Revision* (ST/ESA/SER.A/244) and *Living Arrangements of Older Persons around the World* (STE/ESA/SER.A/240).

Note: See Table 32.1 for descriptions of more, less and least developed regions.

ally, cultural norms encourage men to marry women younger than themselves, so widowed men may opt to remarry a peer or a younger woman, whereas older widows do not typically have access to a similarly expanded pool of potential spouses (Cattell 1997; Velkoff and Kinsella 1993). Consequently, in every nation a significantly higher proportion of women than men are widowed and a higher proportion of men than women are married. Recent evidence also suggests that women in contemporary western nations have a weaker desire to remarry; they may prefer to have serious dating relationships such as “Living Apart Together” (Karlsson and Borell 2002) but may not

want to enter a formal union and take on the home-making and caregiving chores that often accompany marriage. Although the proportion of older adults that is widowed increases steadily with age, the pace of the increase is much steeper for women than men.

The U.S. Census Bureau compiled data on the marital statuses of men and women in 51 nations; Table 32.5 shows the proportion of older men and women who are currently widowed, by nation and region. At each of the three life course stages (ages 55–64, ages 65 and older and ages 70 and older), a much larger proportion of women than men is widowed. Among men ages 55–64, just 3–6 per cent are widowed in most countries, although these proportions are higher in a handful of Asian nations. In India, nearly 12 per cent of men ages 55–64 are widowed; the proportion is slightly above 10 per cent in China. These proportions increase steadily with age for men but at no point do they converge with widowhood rates for same-age women. Among persons age 65 and older, anywhere from 10 to 23 per cent of men are widowed. Again, the exception is India, where 30 per cent of men in that age range are widowed.

These numbers are in stark contrast with the proportion widowed among women. The proportion of 55–64 year-old women who are widowed varies widely, from 13 per cent in the United States and Japan, to more than 40 per cent in North Africa (Morocco and Egypt) and more than 50 per cent in Bangladesh. The proportion of women in this age category who are widowed is roughly three times of that for men. Among women ages 65 and older, the proportion widowed ranges from 45 to 60 per cent in most nations. Several of the Latin American and Caribbean nations have considerably lower rates (e.g., 32 per cent in Jamaica and 39 per cent in Costa Rica) yet these low rates may reflect the fact that non-marital consensual unions are prevalent there so the proportion at risk of being widowed is relatively small. Proportions are considerably higher in North Africa and the Ukraine, where roughly two-in-three women ages 65 and older are widowed. Again, these proportions are roughly two to three times as high as for men in the same age range.

Gender differences in marital status shape the residential experiences of older adults. In developed nations, older women are more likely than their male peers to live alone or to reside in non-family institutions such as nursing homes or assisted living facili-

Table 32.4 Sex ratios for population aged 65 and older for countries with more elderly men than women, 2000

Country	Sex ratio
Qatar	243
United Arab Emirates	226
Kuwait	182
Sudan	133
Bangladesh	119
Saudi Arabia	118
Taiwan	113
Iran	112
Afghanistan	112
Niger	111
Oman	111
Gambia	111
Eritrea	104
Yemen	104
Bahrain	104
Bhutan	103
India	103
Tunisia	101

Source: U. S. Census Bureau, 2000.

ties. Men, by contrast, are more likely to reside in married couple households. In developing nations, women are more likely than men to reside with their adult children— although patterns of modernization and migration have recently begun to chip away at this traditional arrangement. The proportions of older adults living either alone, with children, or in an institution varies widely by region and cultural context, yet the gender gap persists.

Living Alone in Later Life

An estimated 90 million older adults – or one of out seven – live alone worldwide, roughly 60 million of whom are women. Approximately one in five older women lives alone, which is more than twice the proportion of men who do so (United Nations 2005b). Table 32.6 shows the proportion of persons ages 60 and older who live alone, by gender. In every region a higher proportion of women than men live alone, reflecting women's tendency to be widowed and men's tendency to be married in later life. The proportion of older men who live alone ranges from just 2 per cent in South Central Asia to 15 per cent in Western Europe.

Among older women, these figures range from 6 per cent in South Central Asia to 43 per cent in Western Europe. Thus, women are more likely than men to live alone, across all regions and cultures.

Perhaps the starkest divide in living arrangements is Asia versus North and Central Europe. Just 9 per cent of women live alone in Asia, whereas roughly half of all older women in Denmark, Germany and Sweden reside alone. The latter proportion increases gradually with advancing age, yet declines among the oldest old, due to factors such as declining health, lack of financial resources, difficulties in performing tasks of daily living and maintaining an independent residence and the need for on-site nursing or medical care. In Western Europe and, to a lesser extent, North America, older adults are moving into communal living arrangements (i.e., households with two or more older adults) as well as residential care facilities.

Residence in Institutions

Globally, a very small proportion of older adults reside in institutions, although these proportions vary widely by region and gender. Rates of institutionalization range from 1 to 10 per cent in developed nations and less than 1 per cent in most developed nations. In the 1990s, more than 8 per cent of older adults in the Netherlands and Sweden resided in residential care facilities, while 5–6 per cent of older persons in Japan, the United States and the United Kingdom did so (OECD 1996; Jacobzone 1999). The proportion increases steadily with age, so that persons ages 75 and older are two to 10 times more likely than persons ages 65–74 to reside in an institution.

The gender gap in institutionalization emerges only among the oldest old. For example, in Canada in the 1990s, 2 per cent of both men and women ages 60–74 resided in institutions, yet among persons ages 75 and older, these figures were 11 and 19 per cent respectively. The late life gender gap reflects gender differences in marital status and life expectancy. Older men are more likely to be married and thus reside with their wives in later life, relying on their wives for care. Women are more likely than men to survive into the very oldest age groups and thus have a greater need for formal care. Because the need for care increases with age and

Table 32.5 Proportion widowed by age and gender, selected countries and regions: selected years

	Men			Women		
	55–64	65+	Oldest-old	55–64	65+	Oldest-old
North America/Oceania						
Australia (1991)	3.2	13.6		14.1	45.8	
Canada (1991)	2.9	12.9	22.1 ^a	13.9	46.6	64.0 ^a
New Zealand (1991)	4.0	16.1	21.0 ^c	15.3	49.5	58.2 ^c
United States (1995)	2.8	13.5	21.7a ^a	12.9	47.3	64.9a ^a
Western Europe						
Austria (1991)	4.0	16.3	35.4 ^b	18.8	54.4	75.4 ^b
Belgium (1995)	3.9	16.4	30.1 ^a	14.3	49.9	68.9 ^a
Denmark (1991)	4.3	17.9	36.9 ^b	15.2	48.6	69.7 ^b
France (1991)	3.6	15.1	33.3 ^b	16.8	51.3	73.6 ^b
Germany (1991)	3.8	17.7	39.1 ^b	16.8	56.1	77.4 ^b
Greece (1991)	2.4	13.8	31.5 ^b	16.6	51.3	74.5 ^b
Italy (1991)	3.2	14.7	25.1 ^a	17.4	50.3	65.6 ^a
Luxembourg (1991)	4.5	18.2	40.0 ^b	18.4	55.2	75.6 ^b
Norway (1990)	3.3	15.3	26.0 ^a	14.8	45.8	60.3 ^a
Sweden (1991)	2.9	14.7	32.5 ^b	11.5	43.6	66.2 ^b
United Kingdom (1991)	3.9	18.0	37.9 ^b	14.8	49.4	70.8 ^b
Eastern Europe						
Bulgaria (1985)	4.7	23.2	39.2 ^a	19.2	53.2	70.2 ^a
Czech Republic (1991)	4.4	19.2	44.0 ^b	23.3	60.8	82.8 ^b
Hungary (1990)	5.5	19.4	31.5 ^a	25.0	60.2	75.5 ^a
Poland (1990)	4.8	18.0	29.4 ^a	23.7	59.3	74.1 ^a
Russia (1994)	5.4	16.1	22.9 ^c	24.6	57.7	68.6 ^c
Ukraine (1989)	5.0	18.6	24.3 ^c	25.8	65.3	75.4 ^c
Africa						
Egypt (1986)	5.1	14.3		41.1	67.0	
Liberia (1984)	5.3	11.2	14.2 ^a	25.5	46.2	53.9 ^a
Malawi (1987)	2.5	7.8		23.8	47.2	
Morocco (1982)	2.9	9.5	14.4 ^a	41.2	71.1	81.1 ^a
Tunisia (1984)	3.1	10.9	18.2 ^a	30.9	61.8	76.3 ^a
Zimbabwe (1992)	3.2	9.0	13.9 ^a	31.2	61.1	73.2 ^a
Asia						
Bangladesh (1981)	3.8	10.6		52.4	72.2	
China (1990)	10.4	30.0		22.6	62.3	
India (1981)	11.7	23.3		44.5	70.3	
Indonesia (1990)	6.0	14.3	22.3 ^a	38.5	65.5	76.2 ^a
Israel (1983)	3.1	14.6	24.3 ^a	21.0	53.3	71.2 ^a
Japan (1995)	3.0	12.4	22.1 ^a	13.0	50.1	73.1 ^a
Malaysia (1991)	5.1	15.9	24.8 ^a	29.6	58.4	70.2 ^a
Pakistan (1981)	5.6	11.7		18.2	47.5	
Philippines (1990)	6.9	18.3	28.0 ^a	24.0	48.2	61.8 ^a
Singapore (1990)	6.1	20.2	25.5 ^c	28.9	61.8	68.5 ^a
South Korea (1995)	4.7	15.8	28.1 ^a	33.1	73.0	88.3 ^a
Sri Lanka (1981)	5.3	14.4		27.3	50.1	
Thailand (1990)	7.9	20.4	25.1 ^c	27.0	56.1	63.9 ^c
Turkey (1990)	3.4	15.9		23.1	54.6	

Table 32.5 (continued)

	Men			Women		
	55–64	65+	Oldest-old	55–64	65+	Oldest-old
Latin America/Caribbean						
Argentina (1991)	5.1	15.4	24.7 ^a	22.4	54.1	69.6 ^a
Brazil (1980)	4.9	15.8		25.8	54.9	
Chile (1992)	5.1	16.7	25.7 ^a	19.1	46.8	60.2 ^a
Colombia (1985)	4.2	12.9		21.1	43.8	
Costa Rica (1984)	3.5	14.5		15.2	39.2	
Guatemala (1990)	5.1	16.0		28.2	52.8	
Jamaica (1982)	4.1	12.7		14.5	32.0	
Mexico (1990)	4.7	15.0		19.8	43.4	
Peru (1981)	8.1	20.4		23.7	49.6	
Uruguay (1985)	3.6	13.6	22.9 ^a	20.3	50.4	64.2 ^a

Source: Table 7, from Kinsella and Velkoff, 2001. Among the oldest-old, the specific age groups examined vary by nation where, a represents 75 and older; b represents 80 and older; c represents 70 and older.

because women are over-represented among the oldest old, women comprise the majority of the institutionalized older population (Velkoff and Lawson 1998).

The primary reason for the very low levels of institutionalization is that family members provide the bulk of care to older adults who cannot care for themselves. Thus, the overall institutionalization rate is shaped by the number of kin available to provide care. Given declining birth rates throughout the world and increasing numbers of women entering the paid labor market (thus increasing the opportunity costs of providing unpaid care), demographers project that the supply of potential family caregivers will shrink in future decades (Kinsella 1996).

Coresidence with Children and Grandchildren

The most common living arrangement for older adults in nearly all developing nations is coresidence with children or grandchildren. Parent-child coresidence has traditionally been viewed as a practice consistent with norms of filial piety. In Africa and Asia, roughly 75 per cent of older adults coreside with children or grandchildren, while the proportion is 62 per cent in Latin America and the Caribbean. By contrast, just 17 and 25 per cent of older persons in the United States and Europe live with their children, respectively (United Nations 2005b). Women are far more likely

than men to coreside with their children, as men are more likely to remain married in later life and thus reside independently with their wives.

Although older adults' coresidence with children and grandchildren is typically conceptualized as an arrangement that benefits the older generation, persuasive evidence reveals that the flow of support is often reciprocal (Chan 1997; Knodel and Chayovan 1997). Older adults – particularly women – provide care to their coresidential grandchildren and contribute to household chores. Divorce, drug addiction, HIV/AIDS and global migration of young adults have created a situation where older women may reside with their grandchildren only, while their children reside elsewhere. Referred to as “skip generation households,” these arrangements are common in Latin American, Afro-Caribbean and African nations (Sennott-Miller 1989). More than 10 per cent of older women in most of Sub-Saharan Africa and Latin America live in “skip generation” households and this proportion climbs as high as 30–35 per cent among older women in Malawi, Rwanda and Zimbabwe (United Nations 2005b).

The AIDS epidemic has contributed to a significant increase in the number of “skip generation” families in Sub-Saharan Africa. An estimated seven per cent of the Sub-Saharan population is infected with HIV/AIDS, with an estimated 25 million children and adults living with HIV (UNAIDS 2006). The high infection levels among persons age 15–49 result in many children needing care; an estimated 15 million children have lost one or both of their parents as a result of the disease and

Table 32.6 Proportion of persons age 60 and older who live alone: estimates for the world, major areas and regions by sex

Major area or region	Men	Women
World	8	19
More developed regions	13	32
Less developed regions	5	9
Least developed regions	4	8
Africa	6	11
Eastern	6	13
Middle	8	12
Northern	4	12
Southern	8	8
Western	5	10
Asia	5	9
Eastern	7	11
South-eastern	3	9
South-central	2	6
Western	5	14
Europe	13	35
Eastern	11	31
Northern	21	44
Southern	9	26
Western	15	43
Latin America and the Caribbean	7	10
Caribbean	10	9
Central America	7	9
South America	7	11
North America	15	34
Oceania	16	34

Sources: *Living Arrangements of Older Persons. World Population Prospects: The 2004 Revision (ST/ESA/SER.A/244)* and *Living Arrangements of Older Persons around the World (STE/ESA/SER.A/240)*.

Note: See Table 32.1 for descriptions of more, less and least developed regions.

the care of these children is typically shouldered by their grandmothers (Velkoff and Lawson 1998). One study in Kinshasa, Democratic Republic of the Congo (formerly Zaire) found that the principal guardian for 35 per cent of AIDS orphans was a grandparent (Ryder et al. 1994).

Social scientists predict that traditional multigeneration living arrangements may become less prevalent in coming decades, due to the forces of modernization and urbanization (e.g. Zhou 2000). Modernization is the transformation of a society from a rural one with limited technology and traditional values, toward an urban way of life based on scientific technology, highly differentiated institutions, clearly defined individualized roles and a cosmopolitan outlook that emphasizes efficiency (Cowgill 1979). As levels of income and education rise, older adults may develop preferences

(and have the means) for independent living and their children may migrate toward urban areas to find more desirable work opportunities – leaving their aged parents to reside on their own (United Nations 2005b). Additionally, declining birth rates through much of the world mean that older adults have fewer children with whom to share a residence. Research on Latin America documents that countries at later stages of the demographic transition have larger proportions of older adults living alone than do countries at earlier stages of transitions. Data from the Survey on Health and Well-Being of Elders (SABE), a cross-sectional study of community-dwelling older adults in seven major urban areas in Latin America and the Caribbean, shows that Argentina and Uruguay have undergone steeper and more rapid fertility declines than Cuba, Chile, Brazil and Mexico; the former two countries have substan-

tially lower rates of parent-child coresidence than the latter (Glaser et al. 2006).

To date, demographers have only limited evidence of a widespread move away from parent-child coresidence. One study of shifting patterns of living arrangements in Japan shows that the proportion of older adults living with kin has declined while the proportion living alone has increased over the past five decades (Atoh 1998). Kamo (1988) and others have argued that industrialization has been accompanied by an erosion of the social status of Japanese elders. At the same time, however, modernization has contributed to the economic and physical well-being of older adults, thus enabling them to maintain independent residences that are proximate to their children's. Japanese older adults are thus able to maintain the desirable status of "intimacy at a distance" (Stehouwer 1968; Rowland 1991), reflecting normative changes towards individualism and personal independence (Gierveld 2001).

However, in poorer developing nations, independent living is often a default category rather than a desired state among older adults. The migration of adult children from rural villages to urban regions creates a context where older persons are responsible for their own economic and residential well-being, with many continuing to work in arduous agricultural jobs. For example, as a result of large-scale rural to urban migration among young and working-age persons in Zambia throughout the late 20th century, older adults were left to live on their own and often struggled financially as a result. Apt (2001) observed that "the elderly are left behind in rural areas to eke out a living from the land with very limited tools."

Similar patterns have been observed in China, where older widowed women, often left behind in rural villages when their children migrate to larger cities, take jobs in the cash economy. In one recent high visibility case, a 60-year-old widow successfully sued her son and daughter for abandonment. She had lived with her son following the death of her husband but her son subsequently asked her to leave his home and her daughter refused to take her in. The widow sued and the courts ruled that she was allowed to live with her daughter and obliged her son to pay her monthly support (French 2006). This specific case highlights the ways that gender, marital status and cultural and economic context shape the experiences of older adults.

Methodological Concerns in Studying Gender, Aging and Widowhood

We have documented the ways that patterns of mortality, fertility and migration affect the marital status and living arrangements of older men and women. Before discussing the ways that gender and widowhood affect the physical, emotional and financial well-being of older adults, we provide an overview of the methodological issues that social scientists must consider when exploring the individual-level consequences of spousal loss and gender differences therein.

Research Design and Samples

Clinical Samples

The data and methods available for studying the consequences of widowhood have undergone important advances in recent decades. Early studies in North America and Europe of the physical and psychological consequences of loss typically drew subjects from patient populations, usually of persons seeing psychiatric treatment (Parkes 1965). Researchers rarely used control groups; when used, they often included non-bereaved patients seeking treatment (Hyman 1983). Several recent studies have drawn subjects from clinical populations (Arbuckle and deVries 1995) and participants in self-help groups (Silverman 1986; Wheeler 2001), yet findings from these studies cannot be generalized to broader populations of widows and widowers. By definition, patient and self-help samples include those already seeking help, thus findings based on these data may overstate the negative consequences of loss because persons with the most difficult readjustments are over-represented in help-seeking samples.

Widowed-Only Samples

Data from community-based samples of widowed persons only (e.g., Berardo 1970; Lopata 1973) afford researchers greater generalizability than help-seeking samples, yet they do not allow for the systematic evaluation of the *consequences* of spousal loss because they do not include married persons as a comparison group.

For example, studies may reveal that widows have higher rates of depression than widowers, yet this gap may reflect gender differences in psychological health in general, given that women are more susceptible to depression than men. Thus, in order to ascertain the consequences of spousal loss, researchers cannot simply compare widows and widowers. Rather, they must examine the direct effects of both widowhood status and gender on some outcome, as well as the combined (or interaction) effects of the two.

Cross-Sectional Population Surveys

Large sample surveys that obtain information on marital status, physical health, living arrangements, economic resources and psychological well-being offer a potentially rich resource for comparing the experiences of widowed and married persons. Empirical findings based on such large-scale sample surveys are more generalizable than findings from clinical or help-seeking samples and they allow for comparisons between bereaved and non-bereaved persons. However, cross-sectional data pose important obstacles to establishing causal influences, as these data sources capture a single point in time rather than multiple observations over an extended time period. Thus, researchers cannot ascertain whether the differences observed between widowed and married persons are attributable to the event of spousal loss, or to differences that existed prior to the loss. That is, cross-sectional data cannot resolve whether an observed statistical association reflects causation, correlation, or a spurious relationship (see Dohrenwend, Levav, and Shrout 1992 for a review).

Prospective and Longitudinal Studies

Prospective and longitudinal studies are vastly superior to cross-sectional studies in terms of establishing causation. Under a quasi-experimental prospective design, data collection begins prior to the time that an individual experiences a critical event or transition, such as widowhood. Subjects are then tracked over time and persons who eventually experience the transition are then matched with a “control” person (i.e., still-married person) who participated in the pre-event interview and who shares important pre-event characteristics. This design was used in the Changing Lives

of Older Couples (CLOC) study, a study of late-life spousal loss among a sample of roughly 1,500 older Americans residing in the Detroit, Michigan area (see Carr, Nesse, and Wortman 2006).

Quasi-experimental designs are considered one of the most effective methods for establishing causation in studies where the key independent variable (such as “becoming widowed”) cannot be randomly assigned. Moreover, the prospective design enables researchers to obtain timely measures of important pre loss characteristics. For example, cross-sectional studies may ask respondents to recall events, conditions and personal characteristics from the distant past. However, such reports may be subject to retrospective recall bias; this is a particularly serious concern when studying older adults. Errors in recalling past experiences increase with age; the longer the recall period, the less reliable are the retrospective reports (Dex 1995). Age-related cognitive and physical impairments also may increase recall errors (Schwarz et al. 1999). These reporting biases may be particularly problematic in samples of bereaved persons; widowed persons have been found to “sanctify” their late spouse and late marriage and tend to offer overly positive retrospective assessments of both (Lopata 1973). Prospective studies like the CLOC, by contrast, assess traits of one’s spouse and marriage prior to the widowhood transition.

Longitudinal studies, studies that track individuals over time and obtain data at multiple time points, also offer important advantages to bereavement researchers. First, longitudinal studies are superior to cross-sectional studies in revealing causal influences because they can better pinpoint the temporal ordering of events and experiences (Alwin and Campbell 2001). Multiple data points are particularly important when exploring the consequences of stressful events such as widowhood. Widowhood is typically conceptualized as a discrete, observable event believed to trigger significant life changes (Holmes and Rahe 1967). However, most discrete events take time to come to fruition and often occur after a long period of prior stress (Avison and Turner 1988; Wheaton 1999). For example, widowhood may occur at the end of a long and difficult period of caregiving, or following a period of warfare or famine.

Second, longitudinal studies enable researchers to study change over time. The development of new statistical methods in recent years, including latent growth curve modeling, provides tools for analyzing longitudinal data and thus enables researchers to directly eval-

uate claims about the duration, course and patterns of health and economic change. Third, longitudinal studies that span extensive time periods allow researchers to document the long-term consequences of widowhood, particularly for those outcomes that may not occur until several years after the transition. Despite these strengths, longitudinal studies have several limitations. The costs of collecting data at multiple time points can be prohibitive. Moreover, attrition – or the loss of subjects over the course of the study – may bias the study findings if the subjects who are lost shared relevant characteristics (Moss et al. 2001). Selective attrition is particularly problematic in studies of older populations; older, less healthy, less financially secure and more residentially mobile persons are the most likely to drop out of multiwave studies. Thus, the attrition of persons with the fewest protective resources may lead researchers to underestimate the potentially harmful consequences of spousal loss if those who are the least well drop out of the study due to poor health or death. Researchers should thus take appropriate steps to identify and acknowledge both the sources and possible consequences of sample attrition in studies of older widows and widowers. More sophisticated strategies, such as weighting adjustments, imputation (Little and Rubin 1987; Little and Schenker 1995) and the estimation of two-stage selection models (e.g., Heckman 1979; Heckman and Singer 1984) also are effective ways to address such concerns.

Analytic Concerns

Researchers seeking to identify the consequences of spousal bereavement face two important analytic concerns: the time-dependence of such consequences and selection both into and out of widowhood. First, the economic, physical and psychological consequences of spousal loss are conditional upon the time since loss. The effects of bereavement may be masked in heterogeneous samples that include both recent and long-time widowed persons. Moreover, the lack of attention to time since loss may lead to an inaccurate portrayal of gender differences in bereavement. On average, men are widowed for shorter time periods than women, because they are more likely to exit the “widowed” state via either remarriage or mortality (Lee et al. 2001). At any given time, a higher proportion of

widowers than widows are recently bereaved and the recently bereaved tend to have poorer outcomes.

Second, a common strategy for examining the effects of widowhood is to compare bereaved and married persons in a cross-sectional sample and then to assume that the data from married respondents can be used to represent the behaviors, experiences and attitudes of widows and widowers prior to their loss (Ferraro and Barresi 1982). The assumption that married and widowed persons are similar on important attributes is problematic, however, because both *becoming widowed* and *remaining widowed* are selective processes. Not all persons are equally likely to become (or remain) widowed and the factors that increase one’s risk of becoming widowed may also increase one’s susceptibility to economic strain, compromised physical health, psychological distress, or high-risk health behaviors. For example, persons with limited economic resources are more likely to die prematurely than wealthier persons (McDonough et al. 1999; Preston and Taubman 1994). Given that the survivors of these early decedents shared their spouses’ disadvantaged socioeconomic position, they are more likely to experience economic deprivation (and the accompanying physical and psychological strains) even in the absence of becoming widowed (Dohrenwend et al. 1992). That is, the observed statistical relationship between spousal loss and the survivor’s economic status may be spurious rather than causal.

Just as *becoming widowed* is a selective process, *exiting widowhood* via either remarriage or one’s own death also is a selective transition. Persons who remain widowed for the longest durations (and thus are most likely to be identified as “currently widowed” in a cross-sectional survey) may differ significantly from those who have exited the “widowed” category. The healthiest, wealthiest and happiest bereaved spouses are the most likely to remarry (Mastekaasa 1992; Peters and Liefbroer 1997). Cross-sectional studies that compare currently widowed persons with currently married persons may *overstate* the deleterious consequences of loss; the average well-being of persons remaining widowed is lower than for those who “exit” the widowed state via remarriage. In contrast, the least well-off widowed persons have an elevated risk of mortality (e.g., Preston and Taubman 1994). As a result, studies that compare widowed and married persons also may *understate* the harmful consequences of loss; the average well-being of persons who survive is higher than for those persons who die during

the study period. Whether the effects of widowhood are over- or under-stated in a given study may reflect the composition of the study sample. For example, if a high proportion of sample members remarry (e.g., a sample including many young widowers), then the deleterious consequences may be overstated. Conversely, if many sample members die shortly after loss (e.g., a sample including many older or ill persons), then the harmful consequences may be understated.

Measurement Issues

Research on gender differences in the experience of spousal loss focuses overwhelmingly on psychological adjustment to loss (see Wolff and Wortman 2006 for a review). This emphasis is consistent with the widely acknowledged assumption that widowhood is among the most stressful of all life events and has important psychological ramifications (Holmes and Rahe 1967). However, researchers may develop a more thorough understanding of how older adults adjust to loss by considering a fuller range of social, economic and behavioral outcomes, including social engagement and participation (Utz et al. 2002), social support from family and friends (Ha et al. 2005), physical health (Wilcox et al. 2003), strategies for managing daily activities (Umberson et al. 1992) and personal growth in the face of loss (Carr 2004).

The importance of focusing on multiple outcomes has been elaborated elsewhere (e.g., Aneshensel, Rutter, and Lachenbruch 1991; Horwitz 2002). The main reasons for considering multiple outcomes are: (a) to identify the *diverse array of consequences* that widowhood may have for older adults; (b) to identify important *subgroup and cross-cultural differences* in how newly bereaved persons respond to loss; and (c) to recognize that commonly used global measures of adjustment may mask more *specific* adjustments to loss.

As noted earlier, most bereavement research focuses on negative mental health indicators and psychiatric complications including depressive symptoms, major depressive disorders (MDD), anxiety-related disorders such as post-traumatic stress disorder (PTSD) and grief (e.g., Bruce et al. 1990; Stroebe et al. 1993; Zisook et al. 1997). The two most commonly used outcomes are depression and grief. Depression is typically mea-

sured as either a categorical variable signifying that one has experienced a two-week spell of depressed mood and somatic and behavioral symptoms in the year prior to interview, or with a continuous measure of depressive symptoms such as the Center for Epidemiologic Studies Depression (CES-D) scale (Radloff 1977). Typically, grief is measured either as an overarching scale that may comprise more specific symptom subscales (e.g., Jacobs et al. 1986), or as a categorical indicator of a specific “type” of grief, such as “complicated” grief (Barry et al. 2002; Prigerson et al. 1995), or “traumatic” grief (Prigerson and Jacobs 2001; Prigerson et al. 1999).

On one hand, this emphasis on negative aspects of psychological adjustment and the presence or absence of pathology is justifiable. Distress and depression are relatively common reactions to loss; most studies find that 15–30 per cent of older bereaved spouses experience clinically significant depression in the year following their spouse’s death (e.g., Stroebe et al. 1993). The widespread emphasis on dichotomous outcomes (i.e., presence or absence of a diagnosis) is also consistent with medical and psychiatric practices in the United States and elsewhere (Horwitz 2002). Psychiatrists, clinicians and counselors are trained to treat pathology; the decision to treat is contingent upon whether or not one has a formal diagnosis (Kessler 2002). A formal diagnosis may also be necessary if a patient seeking treatment hopes to receive reimbursement from insurers or HMOs (Rost et al. 1994).

An alternative perspective is that the consequences of loss should be conceptualized more broadly. Studies focusing on dichotomous outcomes only, such as MDD or complicated grief, may underestimate the harmful consequences of loss; distressed individuals who barely fail to meet the criteria for diagnosis are disregarded (Mirowsky and Ross 2002). Moreover, such studies fail to detect potentially positive psychological consequences associated with loss, such as psychological resilience (Bonanno 2004), “benefit-finding” (Nolen-Hoeksema and Davis 2004), personal growth (Carr 2004) and post-traumatic growth (Wortman 2004).

Studying single outcomes is a serious liability to researchers who are interested in documenting the distinctive consequences of loss for specific subgroups. Different gender, age, socioeconomic and ethnic groups may respond to spousal loss in distinctive ways (Aneshensel et al. 1991; Horwitz et al. 1996). To the extent that different groups have distinctive reactions to

loss, then studying a single outcome may mask meaningful group comparisons (Stroebe and Stroebe 1983). For example, studies that compare the psychological adjustment of men and women after marital dissolution show that women manifest depressive symptoms while men tend to evidence alcohol problems (see Umberson and Williams 1999 for a review). Studies that focus on one outcome only would erroneously conclude that one gender systematically fares worse in the face of loss.

Age-related emotional and cognitive changes may also affect the ways that individuals adjust to loss. Older adults are less likely than younger persons to report symptoms of extreme distress or depression, given their reduced levels of emotional reactivity (Carstensen and Turk-Charles 1994). Social class may also condition the ways that bereaved spouses react to loss; research on widows in India has found that high-caste widows fare better than low caste-widows in terms of household economic characteristics, yet they fare no better when diet and body mass index are considered as outcomes, suggesting that general indicators of household economic resources cannot capture the allocation of financial resources to widows in particular (e.g., Jensen 2005). Consequently, studies that focus on single outcomes only may conceal the specific consequences for different subgroups.

Third, studies that use an overarching measure of “well-being” may conceal the ways that specific dimensions of physical and emotional well-being respond to loss. For example, a study of the relationship between widowhood duration and physical health in the United States detected that long-term widowed women (those widowed more than three years) were not significantly different from their married peers on a general indicator of health, yet were much more likely to have specific health conditions, such as hypertension (Wilcox et al. 2003).

The Gendered Nature of the Widowhood Experience

Widowhood is considered an important social problem associated with aging, as the transition is often accompanied by emotional distress, physical symptoms, compromised health behaviors, potentially dis-

ruptive residential relocations and economic strains triggered by both the direct costs of medical care and funeral arrangements at the end of a spouse’s life, as well as the loss of the (working age) spouse’s income. The complications associated with spousal loss differ considerably for men and women, however, and reflect gender differences in employment, health behaviors, social relations and integration, and marital power over the life course. Both the nature and magnitude of these differences vary widely across national and cultural contexts, reflecting cross-national differences in the economic and social opportunities afforded to older women and men. In this section, we review theoretical and empirical work delineating the distinctive consequences of late-life widowhood for men and women. We will focus primarily on the experiences of bereaved spouses in North America and Europe, as the majority of such studies focus on these two regions.

Physical Health Consequences of Widowhood

Of critical interest to demographers is whether spousal loss increases one’s risk of mortality, whether widowers are more susceptible than widows to post-loss mortality and whether the effects of spousal loss on mortality attenuate with the passage of time. The vast majority of studies have documented that currently married persons have lower mortality rates than those who are divorced, separated, widowed, or never married (e.g., Goldman et al. 1995; Hu and Goldman 1990; Sorlie et al. 1995; Waldron et al. 1996). These relationships persist even when potential confounding factors such as age and socioeconomic resources are controlled (Bowling 1987; Schaefer et al. 1995). However, studies based on cross-sectional data fail to reveal whether the relationship between widowhood and mortality reflects stressful short-term aspects of the widowhood transition, beneficial aspects of the marital relationship, or whether those who become and remain widowed have a greater risk of mortality than their healthier peers who either remain married or remarry following spousal loss.

Analyses of the relationship between widowhood status and mortality (and physical health, more generally) typically evaluate several competing hypoth-

eses. *The marriage as protection* perspective holds that marriage brings economic, social and psychological resources that bolster one's health. Moreover, marriage makes individuals more responsible and thus they may turn away from high-risk behaviors. This perspective dates back to the work of Durkheim (1897) and presumes that social integration is protective against health threats and morality. Recent research suggests further that social ties may have a direct positive impact on immune and neuroendocrine function (Kiecolt-Glaser and Glaser 1991; Uchino et al. 1996). Spouses also act as an agent of social control, as they discourage risky behaviors in one another (Umberson 1987). Because men are more likely than women to engage in risk-taking behavior, the social control function of marriage is believed to be more protective for men than for women. For women, the economic resources provided by a spouse are particularly important for bolstering one's health, health behaviors and life expectancy – reflecting women's lower levels of labor force participation and earnings at every stage in the life course, across nearly all nations (Smith and Waitzman 1994; Zick and Smith 1991). However, the marriage as protection perspective cannot differentiate among the distinctive categories of unmarried persons (i.e., never married, divorced, separated and widowed) and presumes that the three categories differ from the married in similar, systematic ways (Thierry 2000).

An alternative perspective, the *selection model*, holds that persons who marry (and remain married) are in better physical and emotional health and thus have a lower risk of mortality than those who do not marry (Kisker and Goldman 1987). Just as healthy persons are more likely than unhealthy persons to marry, healthier persons are also more likely to remain married. Similarly, healthier widowed persons are believed to be more desirable romantic partners and thus remarry more quickly after their loss, leaving in the "currently widowed" category disproportionately those with relatively poor health (Helsing et al. 1981; Waldron, et al. 1996). Given the socioeconomic gradient in mortality where the poor have an elevated risk of mortality, the spouses of those who die (especially those who die prematurely) are more likely to have limited economic resources (Smith and Zick 1996). Thus, they may have an elevated risk of mortality even if their spouse had survived. Given that married couples share a social and physical environment, the spouses of recent dece-

edents who died prematurely may also die prematurely as they shared a potentially unhealthy environment (Stroebe and Stroebe 1983).

Both the marital protection and selection perspectives have been used to explain marital status differences in mortality risk but neither explicitly characterizes the effects of *recent* spousal bereavement on older men's and women's mortality risk. The *family transitions* model suggests that the strain of the transition from married to widowed may compromise one's physical health and subsequent mortality risk. This model is derived from early animal and biological studies of stress, which propose that major changes in one's living conditions or social contexts pose a health threat. Early research by Hans Selye (1936) revealed that a diverse range of physical stressors could trigger a similar set of physiological responses, including alarm and exhaustion. Social models of stress have built upon Selye's work and propose that major life events are associated with a disturbance in one's normal routines (such as maintaining healthy eating and sleeping patterns) and a concomitant increase in stress (Holmes and Rahe 1967). Consistent with this perspective, several studies have shown that recently bereaved persons with high levels of depressive symptoms were at subsequent risk for health events such as heart attack (e.g., Chen et al. 1999).

This perspective has given rise to the observation that older bereaved spouses may die of a "broken heart" shortly after the death of their spouse (Parkes et al. 1969; Stroebe et al. 1981). However, while some empirical studies show that the loss of a spouse may trigger one's own death, the pathway is not necessarily "shock" or "broken heart." Rather, changes in social relationships and daily practices are altered when one's spouse dies. The death of one's spouse may trigger changes in one's health behaviors such as the onset of alcohol use, lack of exercise, compromised sleep and diet, and poor adherence to medication regimens – especially among men whose wives formerly monitored their health behaviors (Mellstrom et al. 1982; Umberson 1992; Williams 2004). Consistent with these ideas, one study based on Finnish mortality records found that recently widowed men (but not women) were more likely than their married peers to die from accidents, alcohol-related conditions, lung cancer and chronic ischemic heart disease but not from causes that were less closely linked to health behaviors (Martikainen and Valkonen 1996a).

One way to assess whether the linkage between spousal mortality and one's own health and mortality reflects the loss of marital resources, or whether it is an immediate response to the stress related to loss is to evaluate the time course of the relationship. The majority of studies find that the effects of widowhood on mortality are most acute during the first few weeks (Kaprio et al. 1987; Martikainen and Valkonen 1996b) or months (Bowling 1987; Manor and Eisenbach 2003; Manzoli et al. 2007; Mineau et al. 2002; Schaefer et al. 1995) after bereavement, whereas far fewer find both short-term and long-term excess mortality among widowed persons (Mellstrom et al. 1982). Most studies attribute the short-term consequences to social selection, shared environment and the fact that the stressors associated with bereavement attenuate with the passage of time.

Researchers have also evaluated whether the consequences of spousal loss are more harmful to the physical health and mortality risk of women versus men. The vast majority of studies show that the effects are stronger for men than women (Bowling 1987; Martikainen and Valkonen 1996b; Mineau, Smith, and Bean 2002; Stroebe and Stroebe 1983), yet Manor and Eisenbach (2003) found no significant gender differences (see also Lund et al. 1986; Jones et al. 1984). Manor and Eisenbach (2003) observed that their nonsignificant gender differences could reflect cultural context, or that different pathways operate for men and women. As noted earlier, the main source of vulnerability for women is financial strain (Smith and Zick 1996), whereas for men the major concern is the reduction in social interaction and social support, as well as the need for health protection and housework. A further line of inquiry is whether the link between widowhood and one's own mortality risk is consistent across social strata and cultural contexts. Most studies have found that the risk of mortality is significantly higher for bereaved persons in higher social strata; this finding has been detected in the United Kingdom (Parkes et al. 1969), Belgium (Lusyne et al. 2001) and Israel (Manor and Eisenbach 2003). However, Schaefer et al. (1995) and Martikainen and Valkonen (1998) found no social class differences in the relative risk of mortality after widowhood.

Several explanations have been posited for the greater mortality risk among bereaved persons with the richest educational and economic resources.

Wortman et al. (1993) have argued that persons with the greatest intellectual and financial resources may highly value having a sense of control over their lives and thus may be most overwhelmed in the face of an uncontrollable event such as a spousal loss. Lusyne et al. (2001) proposed that social class shapes both gender roles and the nature of one's social relationships. Persons with lower levels of educational attainment may maintain more extensive interpersonal relationships that transcend the nuclear family; as such, the social support environment of less educated older adults can be better adapted to providing emotional support following bereavement. More highly educated persons, by contrast, may have more heterogeneous social networks that include acquaintances and professional colleagues. However, these more tenuous social ties may not provide emotional or practical support following one's loss. A further explanation is that the consequences of spousal loss are contingent upon how anticipated the loss is. Persons from higher social classes have a lower mortality risk than persons with fewer economic resources, thus they may be more shocked by the loss and may lack peers who can provide empathy and practical support (Suitor et al. 1995).

Studies assessing cross-national and cross-cultural differences in the relation between widowhood and mortality risk are rare because such studies would require comparable data sets from compositionally-similar samples across diverse cultural settings. However, a number of recent studies provide suggestive evidence that the relationship between bereavement and mortality is more pronounced in Western cultures that emphasize individualism and where the nuclear family is socially, economically and residentially autonomous. A recent meta-analysis is the most comprehensive assessment to date of the relationship between widowhood and mortality risk among older adults across diverse national contexts (Manzoli et al. 2007). The analysis focused on 53 studies conducted in 15 nations since 1994. Of the 53 studies considered, 18 were based on elderly populations in the United States, seven in Finland, six in Israel, four in Canada, three each in Denmark and Japan, two each in France, Sweden and the United Kingdom and one each in Australia, Bangladesh, Italy, the Netherlands, Spain and Taiwan. The age of participants across studies ranged from 55 to 93 and more women than men were represented (58 versus 42 per cent). Consistent with

past studies, the authors found that widowed persons had a mortality risk 9–15 per cent higher than their married counterparts. However, these patterns varied across geographic contexts, where effects were significant in samples from Europe and North America but not in Israel and Asia.

The authors did not speculate about the reason for this difference, given the small sample of non-European and North American subjects, yet they did recognize that their findings were consistent with other studies in less industrialized settings. A further examination of physical health differentials in four Asian nations (Philippines, Thailand, Taiwan and Singapore) found a non-significant relationship between widowhood status and a diverse range of physical health outcomes, including self-rated health, symptom counts, vision and hearing impairment and functional limitations (Hermalin et al. 2002). Asian nations are characterized by collective family systems that offer more extra-marital support to older adults. Coresidence with extended family lessens the need to restructure daily practices such as meal preparation and medication regimens, and also ensures that recently bereaved adults have access to sources of social, emotional, instrumental and health-enhancing support.

Psychological Consequences of Widowhood

Widowhood is much more likely to befall women than men, yet both sexes face distinctive psychological challenges as they cope with their partner's death. Studies in Europe and North America reveal that an estimated 40–70 per cent of widowed persons experience a period of two weeks or more marked by feelings of sadness immediately after the loss (e.g., Zisook and Shuchter 1991). Gender differences in emotional distress following late-life widowhood have been researched extensively, yet results remain inconclusive. Several studies report that widows are more likely to become depressed than widowers (e.g., Thompson, Gallagher, Cover, Galewski, and Peterson 1989), whereas most others find widowhood to have a more adverse effect on men than women (Lee, DeMaris, Bavin, and Sullivan 2001; Umberson, Wort-

man, and Kessler 1992). A third group finds no gender differences in the psychological consequences of widowhood (e.g., Zisook and Shuchter 1991).

The conflicting findings in past studies reflect both methodological and substantive issues. As noted earlier, men are more likely than women to die or remarry following spousal loss, thus biasing the results of studies contrasting married and widowed persons at one point in time. Gender differences in psychological health *in general* also need to be taken into consideration before one can conclude that widows or widowers fare worse. Finally, gender differences in psychological reactions to the loss of one's partner may be understated (or overstated) in studies that do not control the mediator (or suppressor) variables that may account for the observed gender gap. The key pathways that link bereavement to psychological adjustment reflect gendered and cultural patterns of social interaction over the life course.

The ways that older women and men experience and adjust to the loss of their partners is inextricably linked to the social roles they have held both within and outside of marriage. Feminist writings, exemplified by Bernard (1972), have argued that traditional marriages – where men specialize in the “breadwinner” role and women are responsible for childbearing and child rearing – benefit women much less than men. Although marriage brings men health, power and life satisfaction, the institution subjects women to stress, dissatisfaction and the loss of self. According to this perspective, women are purported to suffer less upon the loss of their spouse because they have less to lose (Thompson and Walker 1989). Recent empirical studies counter, however, that marriage benefits *both* men and women, yet in different ways (Simon 2002). Women typically benefit economically, whereas men receive richer social and psychological rewards. These gendered patterns of advantage and disadvantage within marriage provide a framework for understanding older adults' adjustment to the spousal loss.

One of the most widely documented sources of women's distress upon widowhood is economic strain. Women are more likely than men to experience economic hardship, upon either divorce or widowhood (Zick and Smith 1991). Although age-based income assistance programs such as Social Security in the United States provide economic support for older widowed persons (Hungerford 2001), the bereaved remain significantly worse off than their married peers. Wid-

owed persons are more likely to live below the poverty line than their married counterparts and they tend to cyclically reenter poverty after losing their partner (Rank and Hirshl 1999). Direct costs associated with the funeral, long-term care, medical care, or estate-related legal proceedings can devastate the fixed income of older adults.

Widows' economic disadvantage reflects life-long patterns of gendered inequality. In developing nations, women have less access to land, capital, credit, technology and other assets, relative to men. Lack of rights to property ownership and inheritance in some societies compromise older women's ability to maintain a basic standard of living in old age (United Nations 2006b). In developed nations, traditional marriage indirectly compromises women's economic well-being – particularly among current cohorts of older adults where wives tended to child rearing and family responsibilities while husbands were responsible for supporting the family financially. As a result, older women have had disrupted work lives (if they worked for pay at all) and fewer years of paid work experience than their male peers. Women's accumulated pension benefits based on their own earnings are typically much lower than those based on their husband's lifetime earnings. The pension benefits and Social Security income of their husband may not be available or may be reduced after his death. Such patterns are not limited to developed nations; in China, for example, older men are twice as likely as older women to have a pension (Leung 1997). Additionally, older widows who try to reenter the labor force may lack the experience to secure a good job or may face age discrimination (Meyer 1996).

These financial stressors, in turn, are an important source of psychological strain. Stressful life events, such as widowhood, may cast off a chain of secondary stressors that have either direct or combined effects on the survivor's well-being. Financial strain is a risk factor for depression (Vinokur et al. 1996). Bereaved women who lack expertise or experience in paying bills, managing money and making major financial or legal decisions may face considerable stress and anxiety when forced to assume sole responsibility for the financial management of the household (Umberson et al. 1992).

Widowers also face distinct disadvantages. In traditional marriages, women typically provide emotional, social, instrumental and health-promoting support to their spouses and children. As a result, widowers who

reside on their own often have difficulty in managing household tasks, maintaining their own health and seeking alternative sources of emotional support after their wives have died. In contrast, women's richer sources of social support over the life course are an important resource as they adjust to the loss of their husbands. Women typically receive more instrumental and emotional support from their children following widowhood than men, given mothers' closer relationships with their children at earlier stages in the life course (Connidis 2001). Women are also more likely to have larger and more varied friendship networks than men and these friendships provide an important source of support to women as they cope with their loss (Antonucci 1990). These patterns reflect life-long processes of gender-role socialization (particularly in current cohorts of older adults), where women are raised to develop close and intimate interpersonal relationships and men are socialized to be self-reliant and independent, with few emotional confidantes other than their spouse.

As noted earlier, the vast majority of research on the psychological consequences of late-life spousal loss focuses on North American and European populations. However, cultural factors may affect the context of and personal adjustments to spousal loss (Krause and Liang 1993). A handful of studies conducted in Asia find elevated levels of psychological distress among recently bereaved older adults, yet they do not detect gender differences. Li and colleagues (Li et al. 2005) found that older widows and widowers had significantly higher levels of depressive symptoms three years after loss. They did not find significant differences between men and women, yet found that persons with high levels of social support from their children fared particularly well. Parent-child coresidence and norms of filial piety were protective to both older men and women as they adjusted to the loss of their spouse.

Research on bereaved men and women in the Philippines, Thailand, Taiwan and Singapore found that spousal loss had a more profound effect on the emotional adjustment of women than men, with the exception of the Singaporean case. Widowed women reported significantly elevated levels of depression in Taiwan and the Philippines and higher levels of loneliness in Thailand. In Singapore, however, the measure of psychological adjustment used was "has no one to turn to." These findings suggest that women

may experience short-term symptoms of depression in patriarchal cultures, although they still appear to have strong social support. The authors attribute these patterns to powerful notions of filial piety, where children provide an enduring source of support to older adults in Asian nations (Hermalin et al. 2002).

Anthropological research in developing nations further underscores how the status of women shapes bereavement experiences. Following the death of their husbands, the social role of older women in Bangladesh changes from the head of the household's domestic operations, to that of a quiet and passive "old widow" and an accompanying loss of authority and status (Ellickson 1988). Studies in Zimbabwe find that older widows live in "destitution, insecurity and low self-esteem" because their possessions are typically confiscated by the relatives of their late husbands (Folta and Deck 1987: 339). In India, newly widowed women are often expected to go into seclusion, followed by a period of confinement either to their home or village (Chen 2000). Widows may be unwelcome at social events and may be avoided because they are considered "bad luck," given their association with death. These gendered cultural practices, in turn, may exacerbate the emotionally devastating effects of spousal loss.

Future Trends and Research Directions

The research presented thus far provides a detailed portrait of late life widowhood in developed and developing nations in the late 20th and early 21st centuries. However, this research describes late life spousal loss as it is currently experienced and not how it may be for future cohorts of older men and women. Current cohorts of older adults were born in the early 20th century: as such, the experiences of widows and widowers in more developed nations reflect the distinctive experiences of a generation who experienced childhood in the Depression (in the United States) or the post-World War I era (in Europe), adolescence in the World War II years and who went on to hold rigid gender-typed social roles as they formed families in the post-War years. Moreover, the experiences documented among large samples of older adults in North America and Europe overwhelmingly reflect the lives of white heterosexuals who had been married only once in their life.

Future generations of older adults will be much more racially, ethnically and religiously diverse and will have family and marital histories that are very different from those of past generations. Current generations of young adult women have higher levels of education, more years of work experience and more egalitarian divisions of labor in their families than past cohorts. Thus, they may be less dependent on their husbands for income, home repair and financial management tasks (Spain and Bianchi 1996). In developing nations, the erosion of the gender gap in literacy may also be accompanied by the elevated status of women and ultimately, the expansion of rights regarding property ownership and inheritance (United Nations 2006b). Under these scenarios, financial, emotional and physical distress may be minimized among future cohorts of widows.

At the same time, adaptation to spousal loss may become more difficult for future cohorts of widow(er)s. Two important demographic trends – increasing divorce rates and declining fertility rates – may have important consequences for how the bereaved adjust to loss. Current cohorts of young married couples are more likely than past generations to dissolve dissatisfying marriages. Consequently, those who remain married until late life may have higher levels of marital closeness and may suffer elevated grief following the loss of these close relationships. Declining fertility rates mean that older adults will have fewer children upon whom they can rely for social support and will be less likely than past generations to have a child who lives close to them (Connidis 2001). Declines in fertility are occurring most rapidly in developing nations; these declines in fertility will be exacerbated by migration patterns, where young adults seek work opportunities far from their aging parents' homes (Kinsella and Velkoff 2001). Future cohorts of older bereaved spouses may need to develop more expansive social networks that include friends and family members who are more proximate, to counterbalance the fact that their children are fewer and less proximate than in past generations.

Future cohorts of older adults may also include increasing numbers of openly gay and lesbian persons. Lack of institutionalized support compounds the difficulty faced by gay partners. Although there are serious shortcomings in Social Security benefit levels and eligibility criteria for surviving spouses who are married in the United States (Richardson 2006), no benefits are available for surviving partners in gay and lesbian relationships. Other rights extended to

heterosexual married couples are not typically available for same-sex couples, including the opportunity to make health care and end-of-life decisions for ill partners. (The legal rights afforded to gay partners are rapidly evolving, however, with a handful of U.S. states now granting gays the right to marry or to form civil unions). Bereaved partners may not receive sufficient emotional support upon loss, because the end of homosexual relationships may not be recognized or acknowledged in the wider community. Some may receive insufficient emotional support from their families of origin, if these relatives disapprove of their lifestyle or sexual orientation (Friend 1990).

Future cohorts of older adults will also be much larger than current cohorts. The number of persons aged 60 and over in the world is estimated at 688 million in 2006 and is projected to increase to almost 2 billion by 2050. Further, older adults will account for an increasingly large share of the overall population. Currently, one out of nine persons is age 60 and older. The United Nations projects that by 2050 one out of every five persons and by 2150 one out of every three persons will be age 60 or older. The proportion is much higher in developed nations today but the pace of aging is much more rapid in developing countries (United Nations 2006a). The most rapidly growing segment of the older population is the "oldest old," or persons ages 80 and older. Persons 80 and older now make up 13 per cent of the world's 60-plus population; this share will increase to 20 per cent by 2050. The number of centenarians is expected to increase 13-fold, from approximately 287,000 to 3.7 million by 2050.

This burgeoning population of older persons and in particular older widows and widowers, will demand the attention of policy makers, given the oldest-old's elevated risk of physical disability and cognitive impairment. Future generations of spousal caregivers will also include many frail persons who may be overwhelmed by caregiving and the eventual death of their spouse. Bereavement researchers will need to identify the distinctive challenges facing both the "young" old (i.e., persons age 65–84) and the oldest old.

As life expectancy continues to increase, the nature, cause and trajectories of death will change; the context of death has important implications for older adults and their soon-to-be bereaved spouses. Most older adults today die of long-term chronic illness; heart disease, stroke and cancer are now the leading causes of death and account for roughly two-thirds of all

deaths to older adults in all developed and most developing nations (Kinsella and Velkoff 2001). Although advanced medical technologies and treatments now enable chronically ill older adults to live longer, the quality of life during the final days is poor (Field and Cassel 1997). Most dying elderly have limited mobility, cognitive impairment, pain and difficulty recognizing family. In many cases, the dying have little control over the medical treatment they receive and difficult decisions about stopping, starting or continuing treatment fall upon distressed spouses (Addington-Hall et al. 1998; Brock and Foley 1998).

However, recent policies and practices, including the establishment of the Patient Self-Determination Act (1990) in the United States and expanded use of palliative care worldwide may give future cohorts of older persons greater control over the conditions surrounding their loved ones' deaths (Burn 1997; Pan et al. 2001; Stjernward 1997). These changes may help to reduce the strains associated with widowhood and other family deaths. Deaths that are painful to the patient and where physicians provide unsatisfactory care are associated with poorer spousal adjustment (Carr 2003). However, medical advancements that extend the length of life may create the need for more intensive caregiving, a task that typically falls to women. If the duration and intensity of late-life caregiving increases and if women continue to bear the burden for personal care, then cohorts of women entering old age in the future may face a more difficult adjustment to spousal loss.

The well-being of older widows and widowers and the demographic, economic, social and cultural determinants of their well-being will likely attract increased attention from demographers as populations age rapidly throughout the world. Further exploration of the way that social and cultural forces shape the bereavement experience of older adults and further attention to the methodological and data concerns underlying such investigations will provide knowledge of practical and political importance for the world's older adults.

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