Loneliness and Depression in Middle and Old Age: Are the Childless More Vulnerable?

Tanya Koropeckyj-Cox

PARC Working Paper Series

WPS 96-02

Population Aging Research Center, University of Pennsylvania Working Paper Series No. 96-02

Loneliness and Depression in Middle and Old Age: Are the Childless More Vulnerable?

Tanya Koropeckyj-Cox
Department of Sociology and
   Population Studies Center
University of Pennsylvania
3718 Locust Walk, McNeil Bldg.
Philadelphia, PA 19104-6298

Abstract

This study examines the relative circumstances of community-dwelling childless and parents in middle and old age (50-84 years old), using data from the 1988 National Survey of Families and Households, in order to update and test earlier findings of negative consequences related to childlessness in later life. Results indicate that net of other effects, both loneliness and depression are significantly related to childlessness for women but not men. Childless women are 46% more likely to report high depression compared to mothers. Among both men and women, being formerly married is related to greater loneliness and depression. These results demonstrate the greater salience of childlessness for women compared to men. The findings are discussed in the context of the changing norms regarding marriage, divorce, childlessness, and gender roles experienced by the newly emerging cohorts of the middle-aged and elderly.

Loneliness and Depression in Middle and Old Age:

Are the Childless More Vulnerable?

Tanya Koropeckyj-Cox [1]

[1] Department of Sociology and Population Studies Center,

University of Pennsylvania, Philadelphia, PA

The social and familial resources with which current and future cohorts enter middle and old age reflect the dramatic social changes of this century. These cohorts are characterized by a much greater diversity of family forms and personal histories than the cohorts that preceded them, a result of lower mortality, lower fertility, and higher divorce rates as well as societal acceptance of a wider range of available life paths for men and women (Bengtson and Silverstein, 1993; Uhlenberg, 1974).   Specifically, low fertility in this century has resulted in a high proportion of people entering old age with few or no children and with fewer siblings within their families (Bengtson, Rosenthal, and Burton, 1990).

Gerontological research has documented the importance of familial resources, especially adult children, in providing social support for the aged (see Horowitz, 1985; Cantor, 1979; Brody, 1990), and childless elders have been generally identified as a potentially vulnerable sub-group among the elderly. Childlessness has been associated with higher risks of loneliness, social isolation, depression, and institutionalization (Bachrach, 1980; Johnson and Catalano, 1981). However, much of the literature on the childless elderly is nearly fifteen years old and, therefore, does not reflect the changes in the composition and experiences of the current and emerging cohorts of elderly persons (see Preston 1989; Goldscheider 1990).

For these reasons it is important to update our understanding of the effects of childlessness on the experience of middle and old age. Three key questions need to be addressed. First, does childlessness influence comparative psychosocial status, specifically

loneliness and depression, in middle and old age? Second, how are these patterns different

for men and women? Finally, to what extent are the differences between the childless and

their peers with children a consequence of other, related social circumstances such as marital

status and living arrangements? The data collected in the National Survey of Families and

Households (NSFH) provide the basis for an updated portrait of the relative effects of parental

status and family history.

Demographic Background

The proportion of women in each birth cohort who have remained childless has

fluctuated widely since 1900. For female cohorts aged 50 to 90 in 1990, the proportion

childless ranged from a high of nearly 22% among women who reached childbearing age

during the Great Depression to a low of 8.8% among women born in the mid-1930's, the

mothers with high fertility during the baby boom, as summarized in Table 1 (Chen and

Morgan, 1991; NCHS, 1993). Increased childlessness has resulted from delays of marriage or

childbearing, as well as from an increase in voluntary childlessness (Poston, 1976; Poston and

Gotard, 1977; Jacobson, Heaton, and Taylor, 1988), a trend which has escalated among

cohorts born after 1940.

Himes (1992) estimated that among persons over age 65 in 1990, childlessness

characterized over one-fifth of the population.   Among the very old, it has been estimated

that up to the year 2000, "about one-quarter of women aged 85 to 89 will be childless and

another one-quarter will have only one surviving child." (Preston, 1992: p. 56)   The aging of

cohorts born after 1940 will lead to a substantial increase in the proportion of elders without

children.

Childlessness in Old Age: Societal Attitudes and Empirical Research

The meaning of childlessness for emerging cohorts of older adults will depend in part on the changing normative context and how it has defined the salience of childlessness over the life course. Strong pro-natalist norms have been pervasive in the United States (Blake, 1972; Gerson, 1985; Veroff, Douvan, and Kulka, 1981), and although acceptance of childlessness has increased, most Americans associate childlessness with greater loneliness in old age (Blake, 1979).

When asked directly about the advantages and disadvantages of childlessness, older women's reports have varied according to whether or not they were themselves mothers (Houser, Berkman, and Beckman, 1982). Currently married and widowed mothers expressed negative views of childlessness in old age. The most frequently mentioned disadvantage of childlessness was loneliness, named by 60% of the mothers but only one third of childless women. Childless women reported significantly more advantages and fewer disadvantages of childlessness.

Empirical studies of childless elders' isolation and loneliness compared to parents have yielded mixed results. Using U.S. data from 1974, Bachrach (1980) found that childless elders were more likely to live alone, and that among all elders living alone, the childless were about twice as likely to be isolated (having few or no face-to-face social contacts in the last week) than those with children (24.8% compared to 10.7%). She also found a significant interaction between childlessness and health, with childless elders in poor health experiencing

the greatest isolation.

Glenn and McLanahan (1981), using data from the U.S. General Social Survey (1973-78), found no significant effects of childlessness on global happiness or well-being among persons over age 50. A similar national study in Canada (Rempel, 1979) found no significant differences by parental status in either happiness or loneliness. Dating back to the mid-1970's, none of these three analyses has been repeated using more recent national data.

Smaller, regional studies of childlessness have also had mixed results. Kivett and Learner's (1980) analysis of rural elderly in North Carolina found no differences in loneliness. Keith's (1983a, 1983b) studies in the Midwestern U.S. found no difference in loneliness between parents and the childless, but reported significant interactions by marital status and sex, with married men less lonely than married women and unmarried men more lonely than unmarried women.

However, two studies of purposive samples found important effects of childlessness as well as interactions between childlessness and marital status. Beckman and Houser (1982), comparing married and recently widowed women aged 60-75, found that parental status was more salient for widows than for married women in influencing social isolation and depression. Widowed mothers were significantly less depressed, less lonely, and less socially isolated than childless widows, but no such differences were found among married women.

Johnson and Catalano's (1981) study of recently hospitalized elders in San Francisco revealed a high level of social isolation among married childless couples, while the never married childless were more competent in seeking help when needed. The authors identified the recently widowed as the most vulnerable group among the childless, having lost the

5

support they were accustomed to finding within marriage and being isolated from other potential resources.

Two recent studies have expanded the discussion of childlessness in old age by examining its consequences within the context of the life course. The extensive interviews conducted by Rubinstein and colleagues (Alexander, et al., 1992; Rubinstein, et al., 1991) with married, widowed, and never married childless women revealed feelings of regret among childless women at different stages of their lives, but described these regrets as highly situational rather than global (Alexander, et al., 1992). Regrets were expressed in terms of appraisals of life fulfillment, worries about aging and dependency, and thoughts about generational continuity, though these regrets were often accompanied by criticism of pro-natalist social norms.

Connidis and McMullin's (1993) study of people 55 and older in Ontario, Canada, suggested that the consequences of childlessness in later life were conditioned by the process through which childlessness occurred in the life course. Focusing on subjective well-being and depression, the authors compared four groups of elders -- childless by choice, childless by circumstance, close parents, and distant parents. They found that women who were childless by "circumstance" were significantly more depressed than mothers who were close with their children, but there were no differences between the close parents and the women who were childless by choice. There were no effects of parental status for men, but their depression was linked to marital status, with greater disadvantage observed among divorced men. However, the authors did not compare the overall groups of parents and childless, and their distinction among the childless between choice and circumstance is problematic. Retrospective

assessments of choice vs. circumstance are subject to personal re-evaluations over the life course (see Alexander, et al., 1992), suggesting that contemporaneous reports of circumstantial childlessness and high depression may both be related to other, underlying sources of unhappiness.

In sum, the empirical research on childlessness in later life presents a mixed picture. National surveys have reported greater isolation among the childless (Bachrach, 1980), but have found no effects of parental status on levels of happiness, well-being, or loneliness. Smaller studies of purposive samples have identified interactions between marital status and childlessness (Johnson and Catalano, 1981; Beckman and Houser, 1982) which have not been tested using data from probability samples of the elderly. Depression has received little attention, yet two recent studies indicate an important connection between childlessness and depression especially for women (Alexander, et al., 1992; Connidis and McMullin, 1993).

Furthermore, the existing literature on childlessness in old age is built on data collected over fifteen years ago and does not reflect the dramatic social changes of the past quarter century which would have been experienced by current cohorts of middle-aged and elderly persons. Both Preston (1992) and Goldscheider (1990) have underscored the importance of cohort succession in predicting the familial and social resources of future cohorts of the elderly, citing childlessness, marital histories, and changes in women's labor force participation as important factors.   Indeed, much of what is known about the effects of childlessness in later life may be cohort specific.

This paper builds on prior research by providing a current, nationally representative portrait of the relative status of childless persons and those who have had children. Using

data from the National Survey of Families and Households (NSFH; Sweet, Bumpass, and Call, 1988), this paper examines the relative social and psychological positions of parents and childless persons in middle and old age. Specifically, the analyses focus on loneliness, an indicator of social isolation, and depression, a mental health indicator, to test the influence of childlessness on the subjective experience of middle and old age.

By focusing on men and women separately, this paper explores the constellations of social influences that shape the life course in gender-specific ways. Namely, social norms which emphasize pro-natalism and associate childlessness with loneliness and depression in old age are empirically and substantively dominant in the lives of women but have less influence on men.

Methods

Data

The National Survey of Families and Households (NSFH) was conducted in 1987-88 by the University of Wisconsin (Bumpass and Sweet, Principal Investigators 1988; for information on the study design and sampling, see Sweet, Bumpass, and Call, 1988). Data were collected through face-to-face interviews with a randomly chosen respondent from each household. This paper analyzed data from interviews and self-administered questionnaires completed by primary respondents. This sample included 3968 subjects between the ages of 50 and 84 years, of whom 620 (15.6%) had never given birth or fathered a child. There were 256 childless men and 364 childless women in the sample.

The group aged 50 to 84 years was composed of survivors of the birth cohorts born

8

between 1904 and 1938. This range included both the high childless cohorts of the Great

Depression and the low childless cohorts of the baby boom, but excluded the cohorts

representing the more recent upswing in childlessness since they had not yet reached the

conventional end of childbearing (age 50) at the time of the survey. The lower end of the age

range was set at 50 rather than 65 in order to include a broader range of cohort experiences.

Preliminary analyses using separate models for those aged 50 to 64 and those over 65 did not

reveal significantly different patterns of effects, so models were run on the entire 50-84 group

with controls for age, health, marital status, and work status. Since the sample included only

community-dwelling respondents, the maximum age was set at 84 years in order to minimize

selectivity biases related to institutionalization as well as to higher nonresponse rates among

the extreme aged (see Lawton and Herzog 1989; Herzog and Rodgers 1988).

A comparison of the parents and the childless respondents in the sample is

summarized in Tables 2 and 3. Weighted data were used in order to take into account

compositional distortions caused by over-sampling certain population groups (see Sweet,

Bumpass, and Call 1988 for a full description of sampling design and weighting procedures).

Chi-square tests were used to identify significant differences by parental status.

There were no significant differences in the extent of childlessness by sex or race,

while the age pattern reflected national fertility levels for these cohorts. The patterns of

educational attainment differed slightly for the childless compared to parents, reflecting the

selectivity of highly educated people (especially women) into the childless life course (see for

example Jacobson, Heaton, and Taylor, 1988; Veevers, 1980), but mean levels of education

were the same. Self-reported physical health did not differ significantly between the two

9

groups and matched physical health profiles reported in other national data sources for noninstitutionalized persons in this age range (see Taeuber, 1992: pp. 3-10, 3-11). As expected, childless persons were nearly twice as likely to live alone (36%) compared to their peers who had children (17.7%). However, the majority in each group lived in two-person households.

Dependent Variables

Loneliness was chosen as an indicator of perceived social and emotional isolation, a central theme in earlier studies of childlessness in old age. This variable provided a subjective report of isolation, avoiding the pitfalls of using objective indicators of isolation (such as living alone or social network size) which may have different meanings for different people (Bachrach, 1980). Loneliness has been defined in the social psychological literature as consisting of "emotional isolation, which results from the loss or lack of a truly intimate tie .. and social isolation, the consequence of lacking a network of involvements with peers of some sort." (Weiss, 1973: p. iv) Thus, the experience of loneliness includes both the emotional pain of losing a loved one as well as a sense of exclusion or marginality from social ties. High levels of loneliness have been linked to higher risks of mental illness and suicide (Peplau and Perlman, 1982; Weiss, 1973).

Loneliness provides an intuitively appealing indicator of isolation with strong sociological as well as psychological implications. However, direct comparisons to earlier studies are problematic because of the variety of measures of social isolation and loneliness that have been employed. Loneliness was measured in the NSFH using a single question

10

which asked how many days in the last week the respondent felt lonely (scores ranged from 0 to 7).

Depression was also chosen as a dependent variable because it represents a meaningful indicator of subjective well-being and mental health status and is frequently used in gerontological research. High levels of depression have been associated with poorer health and increased morbidity as well as with higher risks of institutionalization, suicide and overall mortality (Roberts and Vernon, 1983). While other measures of subjective well-being have been used in studies of childlessness and old age, depression has received less attention. However, the recent work of Connidis and McMullin (1993) identified depression as an important outcome measure and used an instrument similar to the one used in the NSFH.

Depression was measured using a 12-item scale of depression symptoms which appeared in the self-administered questionnaire in the following form: "Next is a list of the ways you might have felt or behaved during the past week. How many days did you a) feel bothered by things that usually don't bother you? b) not feel like eating; your appetite was poor? c) feel that you could not shake off the blues even with help from your family and frineds? d) have trouble keeping your mind on what you were doing? e) feel depressed? f) feel that everything you did was an effort? g) feel fearful? h) sleep restlessly? i) talk less than usual? j) feel lonely? k) feel sad? and l) feel that you could not get going?"   The scores were summed across the twelve items, with total scores ranging from 0 to 84. This scale, a shortened version of the 20-item Center for Epidemiological Studies Depression scale (CES-D), includes affective symptoms as well as symptoms of disrupted or retarded activity. Although the CES-D was developed primarily as "a measure of symptoms and moods rather

than of illness or disorder" (Ensel, 1986: p. 51), researchers have found a consistent

relationship between CES-D scores and diagnoses of clinical depression (Roberts and Vernon,

1983; Ensel, 1986; For a description of the CES-D and its psychometric properties see Lin,

Dean, and Ensel, 1986 or Radloff, 1977). The CES-D has been used successfully with older

populations (Bojrab, et al., 1988; O'Hara, et al., 1985), and the modified CES-D has been

used in analyses of depressive symptoms (Kessler, et al., 1992).

Previous research has identified a cut-off score for the CES-D roughly corresponding

to the highest 16 to 20 percentile of depression scores (Ensel, 1986), which is highly

predictive of clinical depression. The NSFH sample was dichotomized using an analogous

designation, with the top 20th percentile scores indicating the highest levels of depression

(score of 21 or more out of 84). Both the continuous and dichotomous depression measures

were analyzed.

The relations between the main outcome variables, loneliness and depression, and

parental status were initially analyzed using a means comparison and a chi-square test of

significance. The bivariate analyses, summarized in Table 4, showed significantly higher

levels of loneliness among childless men and women, with a greater effect found among men.

Depression was not significantly related to childlessness for either men or women. These

bivariate relationships were elaborated using multivariate models in order to control for other

correlates of loneliness and depression in assessing net effects of parental status.

Independent Variables

The main independent variable in these analyses was childlessness, a dichotomous

variable indicating whether the respondent had ever fathered or given birth to a child. The

multivariate analyses followed the methods used by Connidis and McMullin (1993) except in

the use of two main groups -- all childless persons and all parents. Separate models were run

for men and women because of the expected greater salience of childbearing issues in the

lives of women.

Marital status was included as a secondary independent variable because of its close

connection with fertility history and because marital status has been consistently identified as

an important predictor of well-being in old age. For the multivariate analyses, marital status

was operationalized as a series of dummy variables (separated and divorced, widowed, and

never married), with married as the reference category.

Also used as controls in the multivariate models were health, age, race, educational

attainment, work status, and whether or not a person lived alone. Health was measured using

a single, self-rated health question, with scores ranging from 1 for poor to 5 for excellent.

Age was used as a continuous variable. Race was dichotomized as white and non-white.

Educational attainment was coded as a series of dummy variables for less than high school,

some college, and college degree or more, with completion of high school used as the

reference category. Work and residence status were coded as dichotomous variables

indicating whether or not the person worked for pay or lived alone, respectively, at the time of

the survey.

Analytical Method

The general form of the multivariate models is summarized in the schematic equations

below:

(1) OUTCOME = sociodemographic variables   + childless

(2) OUTCOME = sociodemographic variables + marital status + childless

The first equation includes general background variables -- health, race, age, educational

attainment, work status, and residence status -- as controls in predicting the effect of

childlessness on the outcome measure. The second equation adds marital status, expected to

have a more substantive relation to the outcome variables. Ordinary least-squares regression

was employed in the multivariate analyses of loneliness and depression score (in its

continuous form). The dichotomous indicator of high depression was analyzed using a

logistic regression procedure.

Results

Loneliness

Do the bivariate relationships between childlessness and loneliness still hold for men

and women once other factors are controlled? Table 5 summarizes the results of OLS

regressions predicting loneliness for men and women (unstandardized regression coefficients

are reported, with standard errors in parentheses). Controlling for marital status, childless

women reported significantly higher levels of loneliness than mothers. Poor health was very

strongly related to greater loneliness for both men and women. Marital status was also

significant, with formerly married women (separated, divorced, and widowed) reporting more

loneliness than married women. Controlling for other variables, there was no significant

difference between the never married and currently married women.

14

For men, the bivariate relationship between childlessness and loneliness disappeared once other factors were controlled. Like the women, men in poor health reported higher levels of loneliness. Race, age, and childlessness had no effect. However, both groups of formerly married men were significantly more lonely compared to their married peers. Currently working significantly reduced a man's loneliness while living alone was related to higher levels, net of other variables, though neither of these variables was significant for women.

Depression

Table 6 summarizes the results of OLS regressions predicting the continuous measure of depression (scores ranged from 0 to 84). Poor health was the strongest predictor of depression for both men and women (though depression can create poor health just as poor health may prompt depression). Childlessness became significant for women in model 2 once the effects of marital status were controlled. Net of other effects, childless women appeared to be more depressed than those who had children. Work status and living alone were not significant. Although there was no significant difference for the never married, the formerly married women were significantly more depressed compared to the currently married.

For men, childlessness did not appear to have any significant effects on the level of depression. Working for pay significantly reduced depression, but the effect of living alone disappeared once marital status was controlled. Among the marital status groups, only widowhood was a highly significant predictor of depression.

Further multivariate analyses utilized the dichotomous depression measure based on

15

the 20th-percentile score in order to better understand the predictors of high depression. The results are summarized in Table 7. Unstandardized coefficients are reported, with the standard error in parentheses. For dichotomous variables with significant effects, odds ratios are also reported to facilitate interpretation of effects (Morgan and Teachman 1988).

Again, for both groups, high depression was most strongly related to poor health. Race and age were not significant, and work status was again significant for men but not women. Men who were working for pay were nearly 40% less likely to be depressed compared to those who were unemployed or retired (though again, the direction of causation is not transparent in this relationship.) While men who lived alone were nearly 70% more likely to be highly depressed, this effect disappeared once marital status was controlled.

Childlessness again appeared to have a significant effect for women but not for men. Childless women were 46% more likely to be highly depressed than mothers. Marital status was a strong predictor of high depression for both men and women. For women, the separated and divorced were 60% more likely to be highly depressed than their married peers, while the widowed were 45% more likely. Formerly married men were twice as likely to be highly depressed compared to their married peers, while working for pay reduced the likelihood of high depression by nearly 40%.

A number of additional models were run to test for interactions between childlessness and other variables. No statistically significant interactions (at or below the .05 level) were found between childlessness and educational level, marital status or physical health, the interactions expected to be important in predicting loneliness and depression.

16

Discussion

The analyses of loneliness and depression in women demonstrate an important, detrimental effect of childlessness, controlling for other factors. This result was unexpected in light of the mixed results of earlier studies as well as the normative and structural changes over the last quarter century which would have decreased the salience of parental status in middle and old age. The observed disadvantages of childlessness for women are discussed first followed by a discussion of the gender differences.

The effect of childlessness seen among women could reflect a genuine disadvantage relative to mothers in receiving less social support and having fewer strong emotional ties. This conclusion would support Cantor's (1978) findings that support provided by neighbors and friends may not adequately substitute for close family. The life-long emotional ties and normative obligations between mothers and their children may produce stronger support networks for mothers compared to those of their childless peers.

On the other hand, the disadvantages of childlessness may also stem from pro-natalist social norms which continue to marginalize childless women, as suggested by Alexander and colleagues (1992). Their study of regrets noted strong criticisms from childless women of the norms which had labeled them as deviant and had equated normative womanhood with motherhood. The cohorts currently entering middle and old age may have been particularly affected by the rigid family norms prevalent during their childbearing years. Although attitudes regarding fertility and women's roles have changed substantially, these social changes might have been tempered by resentment toward their earlier experiences with more restrictive norms.

17

While parental status was significant for women, no statistically significant effects were observed for men. This could be related to the centrality of motherhood in defining a woman's identity, while men are defined by multiple alternative roles related to career and status. Gender roles and expectations may exempt childless men from the disadvantages related to spoiled identity or stigma, social isolation, and depression experienced by women.

The dominance of marital status in predicting loneliness and depression among men also suggests that it is the presence or absence of a spouse, regardless of children, that defines a man's social resources. This finding is supported by the literature on the differential benefits of marriage conferred on men compared to women (see for example Bernard, 1972). It also supports the literature on women's roles as "kinkeepers", with women more actively involved than men in maintaining ties among both their nuclear and extended families (Rosenthal, 1985; DiLeonardo, 1987). Thus, a man who loses his wife (through divorce or widowhood) also loses a kinkeeper to manage and maintain his social ties, a role to which he himself would not be accustomed.

Other research in the sociology of the family has revealed more specifically a pattern of relatively distant relationships between fathers and their children compared to mother-child relationships (Furstenberg and Cherlin, 1991). Research on divorced fathers has consistently found little contact between noncustodial fathers and their young or adolescent children (Furstenberg, 1990) as well as infrequent or no contact between divorced fathers and their adult children in later life (Cooney and Uhlenberg, 1990; Webster and Herzog, 1995). Indeed, divorced older men have been identified as one of the most vulnerable groups among the elderly (Goldscheider, 1990). In sum, if marital status defines family contact and

18

relationships for a man, it may not matter whether or not he ever had children; even if he had children, he may no longer be in contact with them and could not depend on them for support in old age.

For married women, the kinkeeper role may have an effect analogous to the "anticipatory socialization" described by Johnson and Catalano (1981: 616), through which social networks are cultivated in advance to prepare for future exigencies. A similar competence among never married men and women may explain the absence of significant differences between them and their married peers in the likelihood of reporting very high levels of depression.

One shortcoming of this study is the exclusion of the institutionalized and extreme aged from the sample. Since lack of social supports is a major determinant of institutionalization for the frail elderly, excluding these elders may produce an overly positive picture of childlessness in late life. Institutionalization would have removed from the sample the most lonely, depressed, and vulnerable childless elders, leaving a subset of community-dwelling elders with better social supports or stronger adaptive capacities (see Johnson and Catalano, 1981). Excluding elders over the age of 85 further eliminated a group for whom loneliness and depression in the face of decline would have been more prevalent and more devastating. As Bachrach (1980) noted, the presence or absence of children may be more critical as health declines in old age.

To summarize, the findings of this study underline the gender-specific nature of the salience of parental status. Among the cohorts studied, childlessness appears to be more important in influencing the loneliness and depression of women than men, a finding that

does not match reports from earlier studies (Rempel 1985; Kivett and Learner 1980; Keith 1983b; Glenn and McLanahan 1981). The different results may reflect the effects of changes in the normative and structural contexts encountered by successive cohorts. Those cohorts with the lowest levels of childlessness may have encountered greater disadvantage due to the uniquely pro-natalist environment in which they experienced their childbearing years. Childless elders from lower fertility cohorts in turn may be less vulnerable in old age due to the more favorable normative context in which their life courses unfolded. Further re-examination of other aspects of childlessness and aging is necessary to update our understanding of the lives of different cohorts as they age in order not to confuse the process of aging with those experiences and characteristics which may be specific to a particular era or group.

21

References

Alexander, B., R.L. Rubinstein, M. Goodman, and M. Luborsky. 1992. "A Path Not Taken:

A   Cultural Analysis of Regrets and Childlessness in the Lives of Older Women."   *The*

   Gerontologist 32(5): 618-626.

Bachrach, C.A. 1980. "Childlessness and Social Isolation Among the Elderly."   *Journal of*

   Marriage and the Family 42: 627-637.

Beckman, L.J. and B.B. Houser. 1982. "The Consequences of Childlessness on the Social-

   Psychological Well-Being of Older Women."   *Journal of Gerontology* 37: 243-250.

Bengtson, V.L., C.J. Rosenthal, and L.M. Burton. 1990. "Families and Aging: Diversity and

   Heterogeneity." In R.H. Binstock and L.K. George (Eds.),   *Handbook of Aging and the*

   Social Sciences (3rd edition). San Diego, CA: Academic Press.

Bengtson, V.L. and M. Silverstein. 1993. "Families, Aging, and Social Change: Seven

Agendas   for 21st Century Researchers." In G.L. Maddox and M.P. Lawton (Eds.),

Annual Review   of Gerontology and Geriatrics (vol. 13). New York: Springer

Publishing Company.

Bernard, J. 1972. *The Future of Marriage.* New York: Bantam Books.

Blake, J. 1979. "Is Zero Preferred? American Attitudes Toward Childlessness in the 1970's."

   Journal of Marriage and the Family 41: 245-257.

Blake, J. 1972. "Coercive Pronatalism and American Population Policy." Research paper

   prepared for the Commission on Population and the American Future. Berkeley:

   International Population and Urban Research, University of California.

Bojrab, S.L., G.P. Sipes, M. Weisberger, H.C. Hendrie, J.R. Hayes, J.C. Darnell, and B.L.

Martz.   1988. "A Model for Predicting Depression in Elderly Tenants of Public

Housing."   *Hospital and Community Psychiatry* 39: 304-309.

Brody, E.M. 1990. *Women in the Middle: Their Parent Care Years.* New York: Springer.

Cantor, M.H. 1979. "Neighbors and Friends: An Overlooked Resource in the Informal

Support   System." *Research on Aging* 1: 434-463.

Chen, R. and S.P. Morgan. 1991. "Recent Trends in the Timing of First Birth in the United

        States." *Demography* 28: 513-533.

Connidis, I.A. and J.A. McMullin. 1993. "To Have or Have Not: Parent Status and the

        Subjective Well-Being of Older Men and Women." *The Gerontologist,* 33(5):

630-636.

Cooney, T.M. and P. Uhlenberg. 1990. "The Role of Divorce in Men's Relations with Their

        Adult Children after Mid-Life." *Journal of Marriage and the Family* 52: 677-688.

DiLeonardo, M. 1987. "The Female World of Cards and Holidays: Women, Families and the

        Work of Kinship." *Signs: Journal of Women in Culture and Society* 12: 440-458.

Ensel, W.M. 1986. "Measuring Depression: The CES-D Scale." In N. Lin, A. Dean, and

W.M. Ensel (Eds.), *Social Support, Life Events, and Depression.*   Orlando: Academic

Press.

Furstenberg, F.F., Jr. 1990. "Divorce and the American Family." *Annual Review of

Sociology*   16: 379-403.

Furstenberg, F.F., Jr. and A.J. Cherlin. 1990. *Divided Families: What Happens to Children

        When Parents Part.* Cambridge, MA: Harvard University Press.

Gerson, K. 1985. *Hard Choices: How Women Decide about Work, Career, and Motherhood.*

Berkeley: University of California Press.

Glenn, N.D. and S. McLanahan. 1981. "The Effects of Offspring on the Psychological

Well-Being of Older Adults." *Journal of Marriage and the Family* 42:

409-421.

Goldscheider, F.K. 1990. "The Aging of the Gender Revolution: What Do We Know and

What   Do We Need to Know?" *Research on Aging* 12: 531-545.

Herzog, A.R. and W.L. Rodgers. 1988. "Age and Response Rates to Interview Sample

Surveys." *Journal of Gerontology* 43: S200-205.

Himes, C.L. 1992. "Future Caregivers: Projected Family Structures of Older Persons."

Journal   of Gerontology 47(1): S17-26.

Horowitz, A. 1985. "Family Caregiving to the Frail Elderly." In C. Eisdorfer (Ed.),   *Annual

Review of Gerontology and Geriatrics, Vol. 5*. New York: Springer.

Houser, B.B., S.L. Berkman, and L.J. Beckman. 1984. "The Relative Rewards and Costs of

Childlessness for Older Women." *Psychology of Women Quarterly,* 8: 395-398.

Jacobson, C.K., T.B. Heaton, and K.M. Taylor. 1988. "Childlessness Among American

Women." *Social Biology,* 35: 186-197.

Johnson, C.L. and D.J. Catalano. 1981. "Childless Elderly and Their Family Supports."   *The

Gerontologist* 21(6): 610-618.

Keith, P.M. 1983a. "Patterns of Assistance among Parents and the Childless in Very Old

Age: Implications for Practice." *Journal of Gerontological Social Work* 6: 49-59.

Keith, P.M. 1983b. "A Comparison of the Resources of Parents and Childless Men and

Women in Very Old Age." *Family Relations* 32: 403-409.

Kessler, R.C., C. Foster, P.S. Webster, and J.S. House. 1992. "The Relationship Between Age and Depressive Symptoms in Two National Surveys." *Psychology and Aging* 7: 119-126.

Kivett, V.R. and M. Learner. 1980. "Perspectives on the Childless Rural Elderly: A Comparative Analysis." *The Gerontologist* 20(6): 708-716.

Lawton, M.P. and A.R. Herzog (Eds.). 1989. *Special Research Methods for Gerontology.* Amityville, NY: Baywood Publishing Co.

Lin, N., A. Dean, and W.M. Ensel (Eds.). 1986. *Social Support, Life Events, and Depression.* Orlando: Academic Press.

Morgan, S.P., and J. Teachman. 1988. "Logistic Regression: Description, Examples, and Comparisons." *Journal of Marriage and the Family* 50: 929-936.

National Center for Health Statistics. 1993. *Vital Statistics of the United States, 1989. Volume 1 -- Natality.* (DHHS Publ. No. PHS-93-1100). Hyattsville, MD: U.S. Department of Health and Human Services.

O'Hara, M.W., F.J. Kohout, and R.B. Wallace. 1985. "Depression Among the Rural Elderly." *The Journal of Nervous and Mental Disease* 173: 582-589.

Peplau, L.A. and D. Perlman (Eds.). 1982. *Loneliness: A Sourcebook of Current Theory, Research and Therapy.* New York: John Wiley and Sons.

Poston, D.L., Jr. 1976. "Characteristics of Voluntarily and Involuntarily Childless Wives." *Social Biology,* 23(3): 198-209.

Poston, D.L., Jr. and E. Gotard. 1977. "Trends in Childlessness in the U.S., 1910-1975." *Social Biology* 24: 212-224.

Preston, S.H. 1989. "Cohort Succession and the Future of the Oldest Old." In R.M. Suzman, D.P. Willis, and K.G. Manton (Eds.), *The Oldest Old.* New York: Oxford University Press.

Radloff, L.S. 1977. "The CES-D Scale: A Self-Report Depression Scale for Research in the General Population." *Applied Psychological Measurement* 1: 385-401.

Rempel, J. 1979. "Childless Elderly: What Are They Missing?" *Journal of Marriage and the Family* 47: 343-348.

Rindfuss, R.R., S.P. Morgan, and C.G. Swicegood. 1988. *First Births in America: Changes in the Timing of Parenthood.* Berkeley: Univ. of California Press.

Roberts, R.E., and S.W. Vernon. 1983. "The Center for Epidemiological Studies Depression Scale: Its Use in a Community Sample." *American Journal of Psychiatry* 140: 41-46.

Rosenthal, C.J. 1985. "Kinkeeping in the Familial Division of Labor." *Journal of Marriage and the Family* 47: 965-974.

Rubinstein, R.L., B. Alexander, M. Goodman, and M. Luborsky. 1991. "Key Relationships of Never Married, Childless Older Women: A Cultural Analysis." *Journal of Gerontology* 46: S270-S277.

Sweet, J., L. Bumpass, and V. Call. 1988. The Design and Content of the National Survey of Families and Households. NSFH Working Paper no. 1, Madison: Center for Demography and Ecology, University of Wisconsin-Madison.

Taeuber, C.M. 1992. *Sixty-Five Plus in America.* Current Population Reports, Special Studies paper number P23-178. Washington, D.C.: U.S. Bureau of the Census.

Thornton, A. 1989. "Changing Attitudes toward Family Issues in the United States."

Journal of   Marriage and the Family 51: 873-893.

Uhlenberg, P. 1974. "Cohort Variations in Family Life Cycle Experiences of U.S. Females."

     Journal of Marriage and the Family 36: 284-292.

Veroff, J., E. Douvan, and R.A. Kulka. 1981. *The Inner American: A Self-Portrait from*

1957 to   1976. New York: Basic Books.

Veevers, J.E. 1980. *Childless By Choice.* Toronto: Butterworths.

Webster, P.S. and A.R. Herzog. 1995. "Effects of Parental Divorce and Memories of Family

     Problems on Relationships Between Adult Children and Their Parents." *Journal of*

     Gerontology: Social Sciences 50B: S24-S34.

Weiss, R.S. 1973. *Loneliness: The Experience of Emotional and Social Isolation.*

Cambridge: MIT Press.