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## RESEARCH NOTES

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### EMPTY NESTS AND PARENTAL WELL-BEING IN AN ASIAN-PACIFIC POPULATION: AN EXPLORATORY TEST

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Guided by theories of role loss and role stress, this study explores mental health outcomes for parents in Guam's Asian-Pacific community whose last offspring has left the family "nest." In contrast with findings reported in studies of U.S. mainland populations, the results of analyses of data from Guam's 1991 Behavioral Risk Factor Survey (N = 398) indicate that the launching of the last offspring from family homes results in role loss and significantly greater emotional trauma for Asian-Pacific women, thus suggesting that parenting may be less stressful for women in Guam. I present a discussion of the implications of the findings for theory and future research.

THIS STUDY EXPLORES mental health outcomes for parents in Guam whose last offspring has left the family home. Two hypotheses dominate the literature in this area of research, labeled the "empty-nest syndrome." The first and earliest hypothesis predicted that women would experience unsettled self-images and heightened anxiety when the last offspring left home (Curlee 1969; Bart 1972; Rubin 1979). This hypothesis is compatible with Thoits's role-identity theory (Thoits 1983, 1986), which argues that role loss will have negative effects on emotional well-being, thus suggesting that offspring departures from the home may be associated with increases in parental emotional trauma (for reviews, see Dennerstein, Dudley, and Guthrie 2002; White and Edwards 1990).

The alternate and more recent hypothesis is that the departure of grown-

up children from home results in positive mental health outcomes for mid-aged women. This hypothesis is derivable from role-stress theory (White and Edwards 1990), which argues that the effect of role loss depends on the degree of stress or conflict associated with a particular role (Barnett and Baruch 1985; Dennerstein, Dudley, and Guthrie 2002). If a role is associated with stress, role loss may enhance emotional well-being. Since studies show that parenting is a stressful role (McLanahan and Adams 1987; Dennerstein, Dudley, and Guthrie 2002), this perspective suggests that empty nests may benefit parental emotional health. Supporting this hypothesis are several studies showing that families with children in the home report less happiness than couples whose children have moved out (Dennerstein, Dudley, and Guthrie 2002; Glenn 1975; Glenn and McLanahan 1982; Menaghan 1983; White and Edwards 1990).<sup>1</sup>

Guided by these hypotheses, this study examines the mental health consequences of empty nests for parents in Guam's extensive Asian-Pacific community. Although Asian and Pacific Islanders are among the fastest growing ethnic subpopulations in the mainland United States (Humes and McKinnon 2000; Yu and Liu 1992), there are currently few studies available that describe the social distribution of their mental health status (for exceptions, see Pinhey 1997; Pinhey and Ellison 1997; Pinhey, Rubinstein, and Colfax 1997), and the literature reveals virtually no studies that describe the effects of changes in family composition on the emotional quality of life for Asian-Pacific parents in Guam (see Sue 1994 for a review). The present study begins with a brief discussion of Guam's social context, followed by a description of the sampling techniques, measures, and analysis strategy used for the study. Finally, I present the potential implications of the results of the analysis for theory and future research. The present study addresses two questions: (1) Does being an empty-nest family in Guam result in positive or negative mental health outcomes for the parents? (2) Are there gender differences in these outcomes?

### **The Guam Context**

Guam is the largest and most southerly island of the Marianas chain in the Micronesian region of the Western Pacific. It is an unincorporated territory of the United States, which holds considerable strategic significance (Shinn 1985; Rogers 1995). The most populous island between Hawai'i and the Philippines, Guam has more than 150,000 residents according to the 2000 Census (United States Bureau of the Census 2001). Four major ethnic groups prevail on the island: Chamorros (42 percent of the population), Filipinos (22 percent), other Asian and Pacific Islanders (21 percent), and Caucasians (14 percent).

The Chamorros are the indigenous people of the Mariana Islands and have inhabited Guam since at least the second millennium B.C. Chamorros are probably of Southeast Asian origin and share language and other cultural similarities with contemporary Southeast Asians. Chamorros are predominantly Roman Catholic (Workman, Workman, and Ortiz-Cruz 1992), a result of Spain's early domination of the island and other portions of the Western Pacific region (see Rogers 1995). Filipinos represent the island's second-largest ethnic population and have a long history in Guam. Their migration to the island has been a recurring social phenomenon with major impact throughout Guam's postcontact period to current times. Consequently, many Filipinos have adopted the Chamorro language and other cultural traditions, and are also likely to be Roman Catholic. The 1986 implementation of a Compact of Free Association between the United States and the newly formed Federated States of Micronesia and the Republic of the Marshall Islands led a "flood" of Micronesians to Guam (Rubinstein and Levin 1992). Anecdotal accounts indicate that approximately 50 percent of Micronesians are Roman Catholic.

There are currently no published accounts that describe the value given to parental roles in Guam or that assess the mental health outcomes for parents whose last offspring has departed the family home. Ancient Chamorros, however, placed tremendous value on *inafa'maolek*, or interdependence within social groups (Rogers 1995), and by all accounts, contemporary Chamorros appear to sustain this broad emphasis on strong social ties and also place a high value on familial relationships and obligations (see Pinhey and Ellison 1997 and the sources cited there). Guam's strong Catholicism may also contribute to women's greater value of the parent role as compared to men, a conjecture supported by preliminary studies (Pinhey 1995). Taken together, this modest evidence from Guam is supportive of Thoits's role-loss theory and suggests that island women should suffer significant emotional trauma when the family nest is emptied. In contrast, studies conducted in the U.S. mainland indicate that mothers there find parenting more stressful than do the fathers (McLanahan and Adams 1987), suggesting that offspring departures from home may benefit women's mental health. My speculative argument concerning empty nests and parental well-being in Guam draws from Pearlin's conjecture (1989) that the relationship of social stressors to an individual's mental health can be understood only when we take into account the social values that shape the meaning of these stressors. Drawing on the information described above, it is likely that women in Guam will suffer role loss and considerable emotional trauma when their last offspring departs the family home. The remainder of this research note tests this hypothesis concerning the effects of the empty nest on parents' emotional well-being in Guam's Asian-Pacific community.

### Data and Methods

To investigate this issue, I analyzed data from the Behavioral Risk Factor Survey (BRFS) conducted in Guam between the middle of March and the end of May 1991. The BRFS used a two-stage proportional cluster design to generate a random sample of Guam households. The sampling frame consisted of a list of the 35,277 households on the island. The proportion of households for each of Guam's nineteen villages relative to the total pool of households was calculated from the sampling frame, and a starting point within housing clusters was chosen at random. One adult member of the household was selected randomly for interview. This method yielded 398 completed interviews, for a response rate of 80.4 percent. Although the sample is relatively small, it is representative of Guam's civilian, adult noninstitutionalized population.

Parental well-being is assessed using two measures: *personal happiness* and *psychological distress*. Personal happiness corresponds to a single interview item that asked respondents how often during the previous month they felt happy. High scores on this item indicate greater happiness. Response categories and codes are never (0), a little of the time (1), some of the time (2), a good bit of the time (3), most of the time (4), and all of the time (5). The sample mean for personal happiness is 3.69 with a standard deviation of 1.16.

Psychological distress is measured by a six-item short-form approximation of Langner's (1962) Twenty-Two-Item Index of Mental Illness (see Johnson and Meile 1981). High scores for this measure indicate greater psychological distress. Respondents were asked how frequently during the previous month they (1) felt worthless (2) felt hopeless, (3) had trouble remembering things, (4) felt restless, (5) felt lonely when they were with other people, and (6) felt blocked. Response codes range from 0 (not at all) to 4 (extremely). The sample mean for this measure is 2.8 with a standard deviation of 3.4. An exploratory maximum-likelihood factor analysis produced a single factor with loadings of .60 or greater. The psychological distress scale indicates high reliability ( $\alpha = .819$ ).

Wells and Strickland (1982) have shown that psychological distress scales often contain a strong physiogenic bias. As a result, it is sometimes unclear whether they measure distress or physical health problems. I control for the effects of physical health using a single item requiring respondents to rate their physical health as being poor (1), fair (2), good (3), very good (4), or excellent (5). Self-rated health has a mean of 3.4 and a standard deviation of 1.0. Several researchers have shown that self-ratings of health correlate highly with objective health conditions (Fillenbaum 1979; Ferraro 1980; Linn

and Linn 1980; Idler and Angel 1990; Idler and Kasl 1991). The inclusion of a measure for self-rated health allows for the control of the effects of physical health, thereby permitting more accurate determination of the influence of empty nests on parental well-being.

*Empty nests* are defined as families with no remaining offspring. Such families are tallied using a combination of two items, one asking if a son or daughter had moved from the home during the year previous to the BRFS and the second asking if offspring remained in the home. This combination was coded 1 if offspring had moved and none remained, and was otherwise coded 0. Twenty-four families met this definition (6.2 percent). Additional family categories used for analysis include *childless* families (54.2 percent), those with *children* none of which had moved from the home (37.3 percent), and *partial launch* families (see White and Edwards 1990), that is, those with offspring remaining after a daughter or son has moved (2.3 percent). The latter category is the omitted comparison category in the following analyses.<sup>2</sup>

Using ordinary least squares (OLS) multiple regression, the models control for the effects of gender (female = 1, male = 0), age (actual years), and self-reported ethnicity, which includes Chamorro, Filipino, Asian (Chinese, Japanese, Vietnamese, and Korean), Micronesian (Chuukese, Yapese, Kosraean, Pohnpeian, and Palauan), and Caucasian respondents (the omitted comparison category in the following analyses). Additional control variables include marital status (married = 1, all others = 0), education (an ordinal eight point scale ranging from eighth grade or less to postgraduate degree), and total family income (a seven-point ordinal scale ranging from less than \$10,000 to \$50,000 or greater).

I begin the analysis by establishing the relationship of personal happiness and psychological distress for parents of empty-nest families. Next, by examining the relationship of empty-nest families with psychological distress and personal happiness within gender categories, I test the hypothesis that women are more likely than men are to suffer emotional trauma when the last offspring is launched from the family nest (Finney, Mitchell, Cronkite, and Moos 1984).

## Results

Table 1 presents the results of OLS regression models estimating the net effects of family composition and control variables on psychological distress and personal happiness. To conserve space, discussion is confined to the relationship between the empty-nest variable and the two measures of emotional well-being. As can be seen, empty-nest families are associated significantly

**TABLE 1. OLS Regression of Psychological Distress and Happiness on Empty Nest Families, Families with Offspring in the Home (children), Families with no Offspring in the Home (childless), and Control Variables ( $n = 351$ )**

	Distress		Happiness	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Empty nest	3.502**	1.241	-1.264**	.426
Children	1.528	1.092	-.471	.375
Childless	.854	1.078	-.479	.370
Age	-.031*	.013	.005	.004
Female	.736*	.350	-.109	.120
Chamorro	-.708	.750	.268	.258
Filipino	-.390	.760	.095	.261
Asian	-.472	.953	-.534	.327
Micronesian	.053	.989	-.221	.340
Education	-.190*	.091	.036	.031
Income	.222*	.100	-.014	.034
Health	-.627***	.169	.196***	.058
Constant	5.360		3.195	
$R^2$	.129		.096	

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

with greater psychological distress ( $B = 3.502$ ,  $p < .01$ ) and lower levels of personal happiness ( $B = -1.264$ ,  $p < .01$ ).

Table 2 contains the results of my second test for gender differences in emotional outcomes to empty-nest families. As can be seen, when the OLS regression models are recalculated within gender categories, women indicate significantly greater distress ( $B = 3.450$ ,  $p < .05$ ) and less personal happiness ( $B = -1.235$ ,  $p < .05$ ) when their last offspring has moved out, whereas empty nests appear not to influence men's emotional well-being significantly.

I next considered the possibility that gender differences in response to empty nests (see Table 2) were differential responses to the stress associated with the last offspring leaving home that could not be captured with measures of distress and happiness. As recently demonstrated (for review, see Aneshensel, Rutter, and Lachenbruch 1991; Horwitz and Davies 1994; Horwitz, White, and Howell-White 1996; Pinhey and Ellison 1997), gender differences in response to the same stressful event are likely to result in greater mental distress for women and more alcohol problems for men. To assess this possibility, I recalculated the OLS regression model for men (not shown here) using self-estimates of alcohol consumption as the dependent variable. The relationship with empty nests for men did not indicate

**TABLE 2. OLS Regression of Psychological Distress and Happiness on Empty-Nest Families, Families with Offspring in the Home (children), Families with No Offspring in the Home (childless), and Control Variables for Women ( $n = 204$ ) and Men ( $n = 147$ )**

	Distress				Happiness			
	Women		Men		Women		Men	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Empty nest	3.450*	1.640	4.344	2.871	-1.235*	.510	-1.876	1.184
Children	1.646	1.289	2.189	2.797	-.357	.401	-1.232	1.105
Childless	.676	1.275	1.939	2.798	.567	.386	-1.017	1.105
Age	-.036+	.018	-.021	.019	.011*	.005	.001	.007
Chamorro	-1.021	1.161	-.363	.956	.475	.361	.059	.377
Filipino	-.455	1.182	-.424	.974	.358	.367	-.154	.385
Asian	-.287	1.435	-.875	1.246	-.524	.446	-.412	.492
Micronesian	.331	1.513	.175	1.295	-.401	.470	.027	.511
Married	-.471	.551	-.701	.647	.161	.171	-.042	.255
Education	-.269+	.137	-.075	.121	.036	.042	.029	.048
Income	.286*	.141	.105	.150	-.037	.043	.025	.059
Health	-.596+	.246	-.628**	.237	.173*	.076	.205*	.092
Constant	1.646		4.032		2.725		4.053	
$R^2$	.125		.146		.145		.104	

+ $p < .10$ ; \* $p < .05$

significantly greater alcohol use. I also explored the possibility that employment might affect the effect of empty nests, particularly for women who worked. However, the entry of employment into the equation did not affect the empty-nest measure.

### Discussion and Conclusions

Guided by theories of role loss (Thoits 1983, 1986) and role-strain (White and Edwards 1990), and by Pearlin's (1989) contention that stressors cannot be understood apart from the social values that shape them, I hypothesized that women in Guam's Asian-Pacific community would suffer role-loss and greater emotional trauma than men when the last offspring moved from the household. My tests support this hypothesis which is compatible with predictions from Thoits's role-loss theory, and in contrast to the results of several empirical studies supporting predictions from role-stress theory (e.g., White and Edwards 1990), which assume parenting roles are stressful (Glenn 1975; Miller and Myers-Walls 1983) and that their loss should result in relief.

What are the implications of these findings for future research and theory? First, the results of this brief article suggest that Asian-Pacific women in Guam may place greater value on parenthood than do men in Guam and that parenthood may be less stressful for mothers in Guam than elsewhere. It is likely that these findings are the result of Guam's remaining traditional values (e.g., *inafa maolek*) that positively promote cooperation and interdependence, which may translate into greater support for parents through stronger traditional kinship systems. Thus, empty nests in Guam's Asian-Pacific community are associated with losing a valuable role identity (Thoits 1983, 1986) that may not be easily replaced with employment roles or other alternatives (Stevens-Long 1984). Future researchers may now wish to examine social roles in Asian-Pacific communities and their relationship to stress and emotional well-being.

An additional implication of the results of this study centers on the debate over whether negative mental health outcomes are a consequence of occupying multiple roles—producing role conflict and overload—or a response to role loss and a lack of role identity (Thoits 1983, 1986). The results of the present analysis are supportive of the conjecture that role loss contributes to Asian-Pacific women's greater distress when long-standing routines associated with parenting conclude and mid-aged women are forced to consider what to do with the rest of their lives. Although my preliminary test was inconclusive, it is also possible that women and men respond differently to the stress associated with role loss resulting from empty nests (Horwitz and Davies 1994; Horwitz, White, and Howell-White 1996; Pinhey and Ellison 1997). Researchers may wish to explore this possibility more thoroughly.



Finally, the potential limitations of this brief study deserve mention. The BRFSS sample is relatively small by standards of U.S. mainland research, and a larger number of cases might have resulted in stronger or perhaps different patterns. Additionally, the present data do not allow for a direct test of the value associated with parenting in Guam, and the inclusion of the actual number of children in families might have benefited the analysis.

These potential limitations aside, the results of this study reveal significant associations between empty-nest families and emotional trauma for Asian-Pacific women that are consistent with predictions derived from Thoits's role-loss hypothesis. Women in Guam might not find parenting particularly stressful, but women's loss of the parent role results in considerable emotional trauma. Because these findings are in direct contrast with the results of studies conducted in the U.S. mainland, they suggest that impacts of cultural and structural contexts may be an important priority for future research on the quality of emotional well-being as a result of children leaving home.

### NOTES

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1. A third hypothesis predicts that negative mental health outcomes associated with women and empty nests are actually a reaction to the onset of menopause, which is argued to coincide with adult children leaving home (McKinlay, McKinlay, and Brambilla 1987). These studies are inconclusive, suggesting that while surgical menopause is associated significantly with elevated depression, the identification of "someone causing worry" (e.g., offspring) is also associated strongly and independently with depression (see Pinhey and Pinhey 2002). Moreover, menopause is not associated with psychological distress when it occurs on time, that is, during midlife; but when menopause occurs at earlier or later stages of the life course, it is apt to be a significant source of psychological trauma (Lennon 1982).

2. Bivariate correlations for empty-nest families are related significantly with greater distress ( $r = .149, p < .01$ ) and greater unhappiness ( $r = -.252, p < .01$ ). Correlations for childless families, families with children, and partial-launch families were not statistically significant. As well, mean scores for the various family organizations revealed a monotonic distribution for distress and happiness: (1) empty nests (mean distress = 10.8; mean happiness = 3.1), (2) childless families (mean distress = 8.9; mean happiness = 3.7), family with children (mean distress = 8.5; mean happiness = 3.7), and (4) partial launch (mean distress = 8.1; mean happiness = 4.1). In summary, contrasted with the composition of other family types, empty-nest families exhibit higher levels of distress and lower levels of happiness.

## REFERENCES

- Aneshensel, Carol S., Carolyn M. Rutter, and Peter A. Lachenbruch  
1991 Competing Conceptual and Analytic Models: Social Structure, Stress, and Mental Health. *American Sociological Review* 56:166–178.
- Barnett, R. C., and G. K. Baruch  
1985 Women's Involvement in Multiple Roles and Psychological Distress. *Journal of Personality and Social Psychology* 49:135–145.
- Bart, Pauline  
1972 Depression in Middle-Aged Women. In *Women in Sexist Society: Studies in Power and Powerlessness*, edited by Vivian Gornick and Barbara K. Moran, 163–186. New York: New American Library.
- Curlee, J.  
1969 Alcoholism and the Empty Nest. *Bulletin of the Menninger Clinic* 33:165–171.
- Dennerstein, L., E. Dudley, and J. Guthrie  
2002 Empty Nests or Revolving Door? A Prospective Study of Women's Quality of Life in Midlife During the Phase of Children Leaving and Re-entering the Home. *Psychological Medicine* 32:545–550.
- Ferraro, Kenneth F.  
1980 Self-Rating of Health Among the Old and the Old-Old. *Journal of Health and Social Behavior* 21:377–383.
- Fillenbaum, G. G.  
1979 Social Context and Self-Assessments of Health Among the Elderly. *Journal of Health and Social Behavior* 20:45–51.
- Finney, John W., Roger E. Mitchell, Ruth C. Cronkite, and Rudolph H. Moos  
1984 Methodological Issues in Estimating Main and Interactive Effects: Examples from Coping/Social Support and Stress Field. *Journal of Health and Social Behavior* 25:85–98.
- Glenn, Norval D.  
1975 Psychological Well-Being in the Postparental Stage: Some Evidence from National Surveys. *Journal of Marriage and the Family* 37:105–110.
- Glenn, Norval D., and Sara McLanahan  
1982 Children and Marital Happiness: A Further Specification of the Relationship. *Journal of Marriage and the Family* 44:63–72.
- Horwitz, Allan V., and Lorraine Davies  
1994 Are Emotional Distress and Alcohol Problems Differential Outcomes to Stress? An Exploratory Test. *Social Science Quarterly* 75:607–621.

- Horwitz, Allan V., Helene Raskin White, and Sandra Howell-White  
1996 The Use of Multiple Outcomes in Stress Research: A Case Study of Gender Differences in Responses to Marital Dissolution. *Journal of Health and Social Behavior* 37:278-291.
- Humes, Karen, and Jesse McKinnon  
2000 *The Asia and Pacific Islander Population in the United States: March 1999*. U.S. Census Bureau, Current Population Reports, Series P20-529. Washington, D.C.: U.S. Government Printing Office.
- Idler, Ellen L., and Ronald J. Angel  
1990 Self-Rated Health and Mortality in the NHANES-I Epidemiology Follow-Up Study. *American Journal of Public Health* 80:446-452.
- Idler, Ellen L., and Stanislav Kasl  
1991 Health Perceptions and Survival: Do Global Evaluations of Health Status Really Predict Mortality? *Journal of Gerontology: Social Sciences* 46:355-365.
- Johnson, Richard David, and Richard L. Meile  
1981 Does Dimensionality Bias Langner's 22-Item Index Affect the Validity of Social Status Comparisons? An Empirical Investigation. *Journal of Health and Social Behavior* 22:415-433.
- Langner, Thomas S.  
1962 A Twenty-Two Item Screening Score of Psychiatric Symptoms Indicating Impairment. *Journal of Health and Social Behavior* 3:269-276.
- Lennon, Mary Clare  
1982 The Psychological Consequences of Menopause: The Importance of Timing of a Life Stage Event. *Journal of Health and Social Behavior* 23:353-366.
- Linn, Bernard S., and Margaret W. Linn  
1980 Objective and Self-Assessed Health in the Old and Very Old. *Social Science and Medicine* 14:311-317.
- McKinlay, John B., Sonja M. McKinlay, and Donald Brambilla  
1987 The Relative Contribution of Endocrine Changes and Social Circumstances to Depression in Mid-Aged Women. *Journal of Health and Social Behavior* 28:345-363.
- McLanahan, Sara, and Julia Adams  
1987 Parenthood and Psychological Well-Being. *Annual Review of Sociology* 13:237-257.
- Menaghan, Elizabeth  
1983 Marital Stress and Family Transitions: A Panel Analysis. *Journal of Marriage and the Family* 45:371-386.

Miller, Brent, and Judith Myers-Walls

- 1983 Parenthood: Stresses and Coping Strategies. In *Stress in the Family*, Volume 1: *Coping with Normative Transitions*, edited by H. McCubbin and C. Figley, 54-73. New York: Brunner/Mazel.

Pearlin, Leonard

- 1989 The Sociological Study of Stress. *Journal of Health and Social Behavior* 30:241-257.

Pinhey, Thomas K.

- 1995 Employment and Mental Well-Being in an Asian-Pacific Population. Paper presented at the annual meeting of the Southwestern Sociological Association, Dallas.
- 1997 The Wages of Self-Appraised Sin: A Research Note on Emotional Well-Being and Marijuana Use in Guam. *Deviant Behavior* 18:295-308.

Pinhey, Thomas K., and Christopher G. Ellison

- 1997 Gender Differences in Outcomes of Bereavement in an Asian-Pacific Population. *Social Science Quarterly* 78:186-195.

Pinhey, Thomas K., and Donna Lewis Pinhey

- 2002 Life Event Timing and the Emotional Consequences of Surgical Menopause for Asian-Pacific Women in Guam. *Women and Health* 36:43-54.

Pinhey, Thomas K., Donald H. Rubinstein, and Richard Colfax

- 1997 Overweight and Happiness: The Reflected Self-Appraisal Hypothesis Reconsidered. *Social Science Quarterly* 78:747-755.

Rogers, Robert F.

- 1995 *Destiny's Landfall: A History of Guam*. Honolulu: University of Hawai'i Press.

Rubin, Lillian

- 1979 *Women of a Certain Age: The Midlife Search for Self*. New York: Harper and Row.

Rubinstein, Donald H., and Michael J. Levin

- 1992 Micronesian Migration to Guam: Social and Economic Characteristics. *Asian and Pacific Migration Journal* 1:350-385.

Shinn, R. S.

- 1985 Guam. In *Oceania: A Regional Study*, edited by F. M. Bunge and W. M. Cooke, 261-276. Washington, D.C.: Department of the Army.

Stevens-Long, Judith

- 1984 *Adult Life: Developmental Processes*. Palo Alto, Calif.: Mayfield.

Sue, Stanley

- 1994 Mental Health. In *Confronting Critical Health Issues of Asian and Pacific Is-*

*lander Americans*, edited by Nolan W. S. Zane, David T. Takeuchi, and Kathleen N. J. Young, 266-288. Thousand Oaks, Calif.: Sage Publications.

Thoits, Peggy A.

- 1983 Multiple Identities and Psychological Well-Being: A Reformulation and Test of the Social Isolation Hypothesis. *American Sociological Review* 48:174-187.
- 1986 Multiple Identities: Examining Gender and Marital Status Differences in Distress. *American Sociological Review* 51:259-272.

Wells, James A., and Donald E. Strickland

- 1982 Physiogenic Bias as Invalidity in Psychiatric Symptom Scales. *Journal of Health and Social Behavior* 23:235-252.

White, Lynn, and John N. Edwards

- 1990 Emptying the Nest and Parental Well-Being: An Analysis of National Panel Data. *American Sociological Review* 55:235-242.

Workman, Ann M., Randall L. Workman, and Linda Cruz-Ortiz

- 1992 Abortion on Guam: Demographic Trends in Fertility Data. *ISLA: A Journal of Micronesian Studies* 1 (Dry Season): 183-198. United States Bureau of the Census
- 2001 *2000 Census of the Population of Guam: Social and Economic Characteristics*. Washington, D.C.: Department of Commerce.

Yu, Elena S., and William T. Liu

- 1992 U.S. National Health Data on Asian Americans and Pacific Islanders: A Research Agenda for the 1990s. *American Journal of Public Health* 82:1645-1652.