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Living Arrangements of Ever-Married Older Lebanese Women: Is Living with Married Children Advantageous?

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Abstract

In many Middle Eastern countries including Lebanon, the family as a social institution is greatly valued and local norms regarding family ties and living arrangements are especially important for older adults, in particular older women. While the presence of an adult child is often seen as responsive to the financial, health and social needs of older parents, it is not clear whether co-residence with married children offers a similar advantage as in the case of co-residence with unmarried children. Using data from a national Population and Housing Survey, this study examines associations of co-residence with adult children among ever-married women aged 65 years and older in Lebanon. Results showed a considerable proportion of elderly women who were living alone (18%) at the time of the survey. Co-residence was more frequent with unmarried than married children, but the gender ratio of the co-residing child varied with the marital status of both the older woman and the child. Moreover, among those co-residing with married children, results indicate a greater likelihood of co-residence with married sons over married daughters. Co-residence with an adult child associated positively with the availability of surviving children and negatively with the socioeconomic status of the woman and her spouse. Compared to other living arrangements, co-residence with a married child entailed the least advantageous Household Socioeconomic Status (HSES) score in terms of housing characteristics, infrastructure, and material possessions, for both married and unmarried women.

Keywords

Lebanon; Living arrangements; Married children; Older adults; Women

Introduction

Lebanon is a small middle-income country located in the Eastern Mediterranean region with a population of around 3.5 million. The country is characterized by unique demographic trends that render the ageing of its population rather a complex challenge: past and current fertility levels are considered one of the lowest among its neighboring Arab countries (crude and total birth rates are currently around 19.0 and 2.2, respectively; ESCWA 2004), and crude mortality rate was estimated at 9.1 per 1,000 as early as the 1970 (Zurayk and Armenian 1985) and is currently as low as 5.4 per 1,000 (ESCWA 2004). A study using data from the national Population and Housing Survey has shown that while the proportion of older people (aged 65 years or more) did not exceed 7% in 1995, projections made for the year 2025 predict levels (10%) similar to those of contemporary Europe (Sibai *et al.* 2004). Yet, ageing and issues related to the care of older persons have never been conceptualized by policy makers as an area of priority concern. Until today, Lebanon lacks an old-age pension plan and public security systems are poorly developed and fragmented, with a variety of coverage modalities from multiple sources (Ammar 2003). While socio-cultural values in theory still protect the majority of elderly people, it is unclear whether the traditional role of the family is being eroded with increasing female work force participation, and a growing trend, through force of socioeconomic and demographic changes, towards smaller nuclear families. This is exacerbated by increasing waves of youth migration and geographic mobility consequent to over 15 years of civil strife and atrocities that ravaged the country from 1975 until 1991.

In several Middle Eastern countries including Lebanon, the family as a social institution is greatly valued and local norms regarding family ties and living arrangements are especially important for older adults, in particular older women. Despite the prominence of intergenerational co-residence, studies focusing on this topic in the region remain limited (Aykan and Wolf 2000; Aytac 1998; Khadr 1997; Shah *et al.* 2002; Yount 2005; Sibai *et al.* 2007). The problem of choosing where and with whom to live may be quite complex. In all the Arab countries, marital status plays an important role in determining older adults' living arrangement. Married older persons are often able to be supported better than those who were never married or those who had lost their partners. Moreover, and owing to their higher life expectancy and younger age at marriage, the situation of older women differs a great deal from older men (Hogman 1999). The experience of losing marital support is faced earlier by women, and it is also highly likely that a woman would survive her husband without getting married again. This means that as a woman becomes older, the composition of her household is bound to alter and, consequently, she is likely to face economic constraints that will restrict her choices and preferences with respect to her new household environment (Mutchler and Burr 1991).

Living arrangements are often associated with the frequency and types of support exchanged. While co-residence with children has been shown to bring material advantages, especially for women (Hahn 1993; Rendall and Speare 1995), it does not necessarily follow that living with unmarried children confers similar advantages as living with unmarried children. Yet, in lower income countries, this distinction may be particularly important because co-residence with an adult married child is envisaged to benefit older parents, by

expanding their relational networks and their opportunities to exchange material and non-material resources (Sibai *et al.* 2007). Furthermore, older women who are themselves heads or spouses of heads of household constitute a special group of interest in the Lebanon context. By definition, they own household assets and material possessions and hence, by virtue of their status, have more autonomy in deciding on their co-residents characteristics than their counterparts. Also a physical dislocation from the original housing unit because of the advent of widowhood or the development of major cognitive or physical impairments would limit their choices for the most suitable living arrangement.

Within the above context, two notable questions arise: firstly, what are the factors that affect living arrangements of older women who are themselves heads or spouses of heads of households in a middle-income Arab country such as Lebanon. Secondly, does co-residence with married children offer a similar advantage as in the case of co-residence with unmarried children.

Conceptual Framework

We hypothesize that co-residence of older adults is influenced by two major factors: availability factors and socio-economic factors. These are discussed in detail below.

Availability factors

The size and composition of one's immediate kinship network is a major constraint for the elderly in the process of choosing the most suitable living arrangement. The literature on living arrangements systematically shows that the number of surviving children does matter for the probability of the elderly to co-reside. In particular, it suggests that elderly persons with a larger number of surviving children are more likely to co-reside and less likely to live alone compared to their counterparts (Kramarow 1995; Wolf 1994; Wolf 1990; Yount 2005).

The gender configuration of surviving children is another important factor which may affect the living arrangement of an older person. Differences in preferences for co-residence vary by country, with the gender of the co-residing child having implications for the nature and level of support provided (Ahn *et al.* 1997; Ofstedal *et al.* 1999). While in southeast Asia, Turkey, Japan, Egypt and Kuwait, where the patrilineal system prevails, older adults tend to live with a married son (Aykan and Wolf 2000; Ogawa and Retherford 1997; Mason 1992; Yount 2005; Shah *et al.* 2002), and hence are likely to receive care from a daughter-in-law; in other countries like Indonesia, co-residence with daughters is more widespread (Cameron 2000). Yet in Cambodia, Malaysia and Thailand, studies did not establish any preference for the gender of the co-residing child (Da Vanzo and Chan 1994; Knodel *et al.* 1992; Mason 1992).

Socio-economic factors

Socio-economic resources play an important role in older adult's decision for co-residence. Studies conducted in developed countries support the hypothesis that personal income has a positive effect on the probability of independent living through the purchasing of privacy. In the developing world the case is different and older people's preferences are complicated by cultural norms regarding family roles and filial responsibility. The possession of some

source of income by elderly subjects such as from rental of rooms, farms leased or small governmental pensions increases the likelihood of co-residence with adult children, especially married sons (Da Vanzo and Chan 1994). In Arab countries, higher standards of living appear to encourage co-residence of older adults with their children which is in contradistinction to western study findings where higher socio-economic status promotes independence and privacy (Shah *et al.* 2002; Khadr 1997; Yount 2005). A number of studies have shown that residence in rural areas is associated with greater co-residence and a lower prevalence of living alone among elderly people (Aytac 1998; Tsuya and Martin 1992). Nevertheless, others argue that due to higher housing costs, urban areas favor sharing of these costs between parents and offspring through co-residence (Da Vanzo and Chan 1994; Yount 2005).

Often, there is an assumption that co-residence is based on the needs of the older person, but research has shown that co-residence is typically mutually beneficial to both generations (Da Vanzo and Chan 1994). While many older people receive financial help from their adult children, in most societies however, support does not flow in only one direction. In countries with well-established pension and social security programs, older adults provide support in the form of financial help, shelter or the wisdom of experience to their children and grandchildren. In poorer countries, elderly individuals, who have little cash income to offer, may contribute in other ways, mainly through the provision of childcare, household chores or housing repair. Such activities free younger adult women for paid or unpaid employment (Apt 1992; Hashimoto 1991).

Living Arrangements of Older Adults in Developing Countries

Households throughout the developing world represent an essential institution for the promotion of health and well-being of older adults and the provision of social and economic support. These familial systems embedded in many cultures are also valued by policymakers of these countries who rely heavily on their existence rather than introducing other means of governmental support programs which have the potential of being costly (Wu 1994; Knodel *et al.* 1992). Based on studies conducted in the Western Pacific region, a high proportion of the elderly remain an integral part of the family structure and more than half of them live with their children in households that consist of five people or more (Andrews 1988). Nevertheless, analysis of Demographic and Household Surveys (DHS) of 43 developing countries suggests that co-residence with adult children is most common in Asia and least common in Africa. While women rely more on the family for financial and health support compared to men, they are more likely to live alone and are less likely to live with a spouse or to head a household (Andrews and Hennick 1992; Eldemir 1997; Yount 2005).

Demographic trends and population-based data from several Arab countries suggest an increasing heterogeneity, by place and time, in the norms driving living arrangements and the expression of intergenerational support. In Kuwait, for example, the percentage of households in which a married couple is living only with their unmarried children has increased from 50% in 1994 to 70% in 1999 (Shah *et al.* 1998, 2000) and more recent findings indicate that 89% of older women and 94% of older men live with their children (Shah *et al.* 2002). In contrast, 55% of ever-married women in Egypt were living with their

husband's family at the start of the marriage in 1995 (El-Zanaty *et al.* 1996). In Tunisia, tendencies toward nuclear living are more common (Holmes-Eber 1997).

In contrast to the relatively good number of studies from Asia and few studies from the Arab region, published studies on the living arrangements of older adults in Lebanon are totally lacking. Moreover, earlier studies in the region have not disaggregated the implications of co-residence with married versus unmarried children. Yet, this distinction may be especially important in lower income countries because married children are often viewed as important sources of economic security for their older parents. Using national data from the Population and Housing Survey conducted in 1996 in Lebanon, this study reports on living arrangements of ever-married older women who are heads or spouses of heads of households, assesses the demographic and socioeconomic correlates of co-residence with an adult child, and finally, examines whether associations between household socio-economic assets and co-residence vary by the marital status of the child and of the women.

Subjects and Methods

Study design

Data for this study is derived from the 'Population and Housing Survey' (PHS) that was conducted by the Ministry of Social Affairs in Lebanon in collaboration with the United Nations Population Fund (UNFPA). The selected sample covered around 10% of the Lebanese Population (around 70,000 households and 290,000 family members) across Lebanon's six governorates and 26 districts. Selection of this sample was done using a three-stage, stratified cluster design. Further details on the design and conduct of the survey are presented elsewhere (Beydoun 2001). For each member residing in the household, the questionnaire elicited baseline characteristics such as age, sex, relationship to head, education, employment status, marital status and, for ever-married women aged 15 years or more, their fertility level and number of living children. Data on household characteristics including housing conditions, infrastructure, household possessions and assets, ownership of real estate property, and place of residence were also collected.

Study subjects

The objectives of the present study are to examine living arrangements of ever-married older women aged 65 years and over, and to assess correlates of co-residence with at least one adult child (aged 18 years and over) with a focus on co-residence with married children. For this, our study population included women having at least one living child and being either heads or spouses of heads of household. Women who are never married or ever-married but childless could not have been at risk for the outcome (co-residence with any adult child), even if they desired so. The original data file indicated a total of 6,362 women aged 65 years and older who were ever-married and were either heads or spouses of heads of household. Excluding women who had no surviving child yielded a total of 5,995 eligible subjects: 3,363 were currently married at the time of the survey and 2,632 unmarried, with the majority of the latter (98.6%) being widowed or divorced.

Concepts and variables

For living arrangements, two measures were created: the first one was a four-category measure of living arrangements (living alone, living with spouse only, living with an adult child (with or without spouse) and living with non-children others (with or without spouse), and the second was a binary measure termed co-residence with an adult child and was based on the previously created living arrangement variable (coded 0 for not co-residing with a child and 1 for co-residing with a child). For women co-residing with a child, the gender and marital status of the co-residing child was also examined.

Correlates of co-residence with an adult child were examined according to the two subsets of factors: availability factors including the total number of living children, and their gender configuration (having sons only, daughters only, or children of mixed gender) and socio-economic factors including educational level and employment status of women (for all women) and husband's education and occupational grade (for married women). Occupations were grouped into professional, skilled, and unskilled occupations. Additionally, variation of co-residence by urban/rural area of residence was examined.

Furthermore, the 'advantageous' status of a household in the sample was operationalized based on a composite index for Household Socio-Economic Status (HSES). HSES was computed from assets and material goods related to housing characteristics (type, ownership and surface area of the residence), infrastructure (principle heating system and availability of water network) and material possessions (ownership of real estate, cars and telephone lines). The index, as derived from the PHS data, has been described in detail elsewhere (Beydoun 2001). Briefly, using the principal component method of factor analysis, a summative score was computed for each household after assigning scores based on comparative advantage with respect to socio-economic status of the household. For instance, a household that is completely owned yielded a higher score than a rented or partially owned household. The HSES index is a standardized z-score with a mean of zero and standard deviation of one. It ranged between -10.33 and +10.32 with positive values indicating a household position above the overall sample mean and negative values indicating a status below the overall mean.

Statistical analysis

Using frequency distribution, living arrangements and attributes of co-residing children were reported for the total sample and separately for married and unmarried women. To examine the association between explanatory variables and co-residence with an adult child, bivariate analyses were conducted and the significance of the associations was tested using Pearson's chi-square test. Furthermore, a series of age- and multivariate logistic regression models were conducted to examine the independent contribution of each of the co-variables in explaining preferences for co-residence with an adult child. Variables included in the multivariate models were age, number of living children, child configuration, women's education and employment, and husband's education, occupation for married women, urban-rural area of residence and geographical area. Prevalence odds ratios (ORs) were obtained and their significance was assessed using the Wald test. Additionally, differences in means of HSES score across living arrangements were tested using one-way ANOVA. All

analysis was conducted stratified by women's marital status. The SPSS software version 11.0 (2003) and STATA release 8.0 (2003) were used for statistical analyses. A two-tailed p value of <0.05 was considered significant.

Results

Overall, one in five ever-married elderly women (18.0%) was living alone at the time of the survey, and around 17% were living with spouse only (Table 1). The proportion of those living alone exceeded 40% for unmarried (divorced or widowed) women. More than half co-resided with an adult child (59.8%), and this was more common among the married than the unmarried group (65.5% vs. 52.3%, respectively). When the co-residing child attributes were examined, results showed that a substantial proportion of older women co-resided with unmarried children only (50.1%), more so with daughters than with sons (son/daughter ratio=0.76). For the small proportion of women who were living with at least one married child (9.7%), a preference for married sons over daughters was noted (son/daughter ratio=5.1), and this preference was more pronounced among married than unmarried women (ratios 8.5 and 2.7, respectively).

Table 2 presents the distribution of co-residence with an adult child by availability and socioeconomic factors, and summarizes the regression results using age- and multivariate-adjusted Odds Ratios (ORs). The likelihood of co-residence with an adult child decreased consistently with age and increased with increasing number of living children. Noteworthy, these associations were stronger among unmarried women than the married. Furthermore, results showed that while having only sons decreased significantly the likelihood of co-residence (OR=0.67 among the married and OR=0.50 among the unmarried), having only daughters increased the likelihood of co-residence for the unmarried women only (OR=1.46) after controlling for all other factors.

Co-residence was associated with various measures of socio-economic status, with overall findings indicating that higher socio-economic status of the subject associating negatively with co-residence. As educational level of the woman and of the spouse increased, the propensity to live with an adult child decreased. This association, however, did not attain significance in the multivariate analysis. Furthermore, married women whose husbands were in the skilled and unskilled working groups were more likely to be co-residing with their children than those whose husbands were retired or in the professional grade (multivariate adjusted ORs=1.28 and 1.39 respectively, p value <0.05). Similarly, utilizing another measure of socio-economic status, namely 'self-sufficiency', which implicates a higher living standard and a better economic standing in the Lebanese context, results showed that women who reported to be 'self-sufficient' were significantly the least likely to be co-residing with an adult child (multivariate adjusted OR=0.35 for married and OR=0.41 for unmarried women). There was no relationship between co-residence with an adult child and urban/rural place of residence among both married and unmarried women.

Mean HSES scores for the total sample and by living arrangements are presented in Table 3 for married and unmarried women separately. Overall, the score was higher for the married than the unmarried (+0.25 and -0.33, respectively). Among both groups, the most

advantageous HSES score was found for those living with non-children others and the least favorable was among those living alone or co-residing with a married child.

Discussion

Although the presence of significant others in the household is often desirable for older adults, a considerable proportion of our elderly women were either living alone (18%) or with the spouse only (17%), a finding that is consistent with several other surveys in developed and developing countries. While the majority of older females in our study were co-residing with an adult child (60%), this proportion remains lower compared to other countries in the region such as Kuwait and Egypt (89% and 81%, respectively; Shah *et al.* 2002; Khadr 1997). Among women co-residing with married children, findings indicate a greater likelihood of co-residence with married sons compared with married daughters.

In accordance with most studies in Asia and the region (Asis *et al.* 1995; DaVanzo and Chan 1994; Shah *et al.* 2002; Stone and Short 1990; Yount 2005), co-residence of older women with one of the adult children was positively associated with availability factors (total number of living children) and inversely associated with several indicators of socioeconomic status, such as education and occupational grade (Shah *et al.* 2002; Khadr 1997). Older individuals with relatively prosperous higher economic status are generally better able to care for themselves or, alternatively, own sufficient resources to afford the realization of their personal preferences for privacy and independence. Our findings of a strong and inverse relationship between co-residence with an adult child and women reporting 'self sufficient' occupational status compared to those currently in the workforce merit consideration. Compared with younger females, cohorts of older women in our study are mostly illiterate and are less likely to have *ever* been members of the labor force in Lebanon, and, hence, persistence of women in the labor force during old age is an indication of need, severe hardship and adversity.

In this study, urban and rural older women had no difference in the likelihood of co-residence with an adult child. Studies examining variations in co-residence by urban–rural areas have not been consistent, and interpretation of the findings is often complicated by cultural norms in rural areas favoring co-residence on one hand, and by declines in availability of children resulting from several waves of out-migration, on the other. Rural surveys in Kenya have found that respondents felt that their children did less than they had done for their parents (Kinsella 1988), a pattern similar to that found during the process of industrialization in nineteenth century New England (Gratton and Haber 1993)

Co-residence with an adult child has been shown to present a central feature of the familial support system for older adults in most countries of the developing world (United Nations 2000) and have implications for the well being of the elderly as well as for other household members (Aytac 1998). Knodel and Ofstedal (2002, pp 177) note that “co-residence with *married* children will be more responsive to the financial, health and social needs of older parents than is the case for co-residence with *unmarried* children.” Findings from this study, however, contradicted expectations with older women co-residing with married children having the least advantageous household socio-economic status scores (HSES) compared to

other living arrangements, particularly among unmarried women. In Lebanon, as elsewhere in the region, it is the norm that children live with their parents until marriage and then couples would leave their parent's home to establish an independent household (Khadr 1997; Nawar *et al.* 1995; Yount 2005). However, as parents age and in the case of health decline or financial shortage, co-residence with a married child, often the son, is resumed especially when one of the two parents passes away. Knowledge of the study setting within the Lebanon context suggests that it is reasonable to consider the possibility that co-residence with a married child reflects a shortage of economic resources of either the parent or the married child or both. Although it is very difficult to answer who moved with whom, the restriction of our study subjects to women who are heads or spouses of heads of households suggests that, in the Lebanon context where married children are expected to live separately, it is the married children who are likely to have resumed co-residence with their parents.

Arguably, co-residence with a married child may simply have been a marker for an unmeasured underlying illness among older women. Yet, studies conducted elsewhere have shown that intergenerational co-residence more often resulted from the children's economic need than their parent's declining health (Aquilino 1990; Ward *et al.* 1992). According to Grundy (1992), social and financial needs of adult children should be given attention when studying pathway to co-residence. For example, among Malaysians aged 60 years and older, the desire to reduce the cost of living among both children and parents promoted co-residence while wealthier parents made use of their higher income to purchase privacy and independence (Da Vanzo and Chan 1994). In an earlier cohort study conducted in Lebanon, the presence of an adult married child did not seem to confer an avenue for old age security. Older adults co-residing with married children have been shown to have the highest mortality risk independent of pre-existing health conditions and lifestyle (Sibai *et al.* 2007).

Several limitations with the PHS data do not allow us to examine certain associations in greater detail. Because of the cross-sectional nature of the study design, associations observed between co-residence and HSES are not necessarily causal. It is possible that co-residence with an adult married child is the result of a natural selection process, whereby poorer older women and poorer children are more likely to co-reside than their better-off peers. In contrast, associations of co-residence with schooling and occupational grades are relatively less biased as these variables reflect earlier life circumstances and are more robust over time. Moreover, as in most demographic and household surveys, the lack of information on health and functional disability in this dataset precludes the study of the influence of the health status of older women on their living arrangement.

Assumptions are often made about older people's preferences for living arrangements that are based on norms and values. In one region in Malaysia, ethnic and cultural factors strongly influenced co-residence, with Chinese and Indian seniors being more likely than Malay age peers to live with adult children (Chan and DaVanzo 1996). In East Asia and the northern sector of South Asia, cultures based on Hindu and Moslem philosophies and an authoritarian, patrilineal system stress co-residence and push care by sons and their spouses (Mason 1992). Lebanon is a multi-ethnic country and religiously diverse society; and it is likely that elderly persons from two different religions, who have similar economic status

and kinship profiles, may choose to accommodate these constraints with different living arrangements. Religion may also interact with other variables of interest (gender and marital status of the child, educational attainment) to influence outcome. While lack of information on religion in the PHS dataset precludes assessment of such hypothesis, this remains a valid question worthy of future research.

Ideally, longitudinal data identifying transitions between the different living arrangements is more appropriate for an understanding of the elderly preferences, the complex decision-making process and reasons behind familial resource transfers. The assumption that a particular household-sharing arrangement is a lifelong one is not necessarily valid, and an elderly person may experience rotating co-residence patterns where care giving responsibilities are turned over from one offspring to the other. The question is raised, was there a transition in the living arrangement over the life course of the elderly women or did the parents and the children remain together continuously even after the marriage of children? Intuitively, women's needs and preferences evolve as they approach old age. Studies that illuminate how families accommodate to their changing demographic and socioeconomic environment are warranted. Studies should also include information on the direction and types of exchange, support and remittances that occur within the household and from kin living outside.

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Table 1

Distribution of Ever-Married Elderly Women by Living Arrangements and Co-residing Child Attributes; Lebanon, 1996

Living arrangements	Total Sample		Married		Unmarried	
	n	%	n	%	n	%
Living alone	1,117	18.0	14	0.4	1,103	41.9
Living with spouse only	1,043	17.0	1,043	31.0	0	0.0
Living with an adult child	3,581	59.8	2,205	65.5	1,376	52.3
Living with at least one married child	579	9.7	381	11.3	198	7.5
Living with unmarried children only	3,002	50.1	1,824	54.2	1,178	44.8
Living with non-children others	254	4.2	101	3.0	153	5.8
Total	5,995	100.0	3,363	100.0	2,632	100.0
Co-residing child attributes						
Living with at least one ^a						
Unmarried daughter	2,386	39.8	1,430	42.5	956	36.3
Unmarried son	1,805	30.1	1,191	35.4	614	23.3
Married son	494	8.2	344	10.2	150	5.7
Married daughter	94	1.6	40	1.2	54	2.1
Gender ratios: sons/daughters						
Unmarried children		0.76		0.83		0.64
Married children		5.1		8.5		2.7

^aThe categories are not mutually exclusive and hence percentages do not add to 100%

Co-residence with an Adult Child Age 18 years and Older: Age- and Multivariate-Adjusted Odds Ratios (ORs) Among Married and Unmarried Elderly Women; Lebanon, 1996

Table 2

	Married women				Unmarried women			
	Co-residing with any adult child				Co-residing with any adult child			
	n	%	OR ₁	OR ₂	n	%	OR ₁	OR ₂
Age								
65–74	2,810	68.5	1.00	1.00	1,691	61.1	1.00	1.00
75–84	482	51.5	0.75	0.49 ^a	709	40.6	0.66	0.41 ^a
85 +	71	43.7	0.64	0.40 ^a	232	23.3	0.38	0.20 ^a
Availability factors								
Number of surviving children								
1	78	56.4	1.00	1.00	111	27.9	1.00	1.00
2–3	453	54.5	0.91	1.05	449	42.5	1.96 ^a	2.02 ^a
4 +	2,832	67.6	1.63 ^a	1.62 ^a	2,072	55.7	3.67 ^a	3.82 ^a
Child configuration								
Mixed genders	3,301	66.6	1.00	1.00	2,310	54.5	1.00	1.00
Sons only	162	51.2	0.51 ^a	0.67 ^a	123	30.9	0.39 ^a	0.50 ^a
Daughters only	92	64.1	0.92	1.05	88	54.5	0.95	1.46 ^a
Socio-economic Factors								
Woman's education								
Illiterate	2,588	66.3	1.00	1.00	1,997	52.8	1.00	1.00
Primary education	412	68.0	1.01	1.05	351	53.0	0.85	0.76
Intermediate	197	65.5	0.90	1.13	162	51.9	0.83	0.79
Secondary or more	166	47.6	0.43 ^a	0.67	122	42.6	0.56 ^a	0.69
Husband's education								
Illiterate	2,298	66.3	1.00	1.00	–	–	–	–
Primary education	516	68.6	1.04	0.98	–	–	–	–
Intermediate	184	65.2	0.91	0.92	–	–	–	–
Secondary or more	286	53.5	0.55 ^a	0.71	–	–	–	–

	Married women						Unmarried women					
	Co-residing with any adult child			Co-residing with any adult child			Co-residing with any adult child			Co-residing with any adult child		
	<i>n</i>	%	OR ₁	<i>n</i>	%	OR ₂	<i>n</i>	%	OR ₁	<i>n</i>	%	OR ₂
Husband's occupation												
Retired	2,085	63.1	1.00	1.00	1.00	1.00	—	—	—	—	—	—
Professional	127	61.4	0.82	1.05	1.05	1.05	—	—	—	—	—	—
Skilled	861	70.2	1.31 ^a	1.28 ^a	1.28 ^a	1.28 ^a	—	—	—	—	—	—
Unskilled	210	72.4	1.48 ^a	1.39 ^a	1.39 ^a	1.39 ^a	—	—	—	—	—	—
Woman's employment												
Working	62	77.4	1.00	1.00	1.00	1.00	74	55.4	1.00	1.00	1.00	1.00
Housewife	3,262	65.6	0.57	0.50 ^a	0.50 ^a	0.50 ^a	2,314	54.4	1.16	1.16	0.98	0.98
Self-sufficient	39	46.2	0.26 ^a	0.35 ^a	0.35 ^a	0.35 ^a	244	31.1	0.48 ^a	0.48 ^a	0.41 ^a	0.41 ^a
Area of residence												
Urban	2,613	65.7	1.00	1.00	1.00	1.00	2,199	53.4 ^a	1.00	1.00	1.00	1.00
Rural	750	65.1	1.00	1.00	1.00	1.00	433	46.7	0.82	0.82	0.92	0.92

OR₁ / Age-adjusted odds ratio; OR₂ multivariate adjusted odds ratio

^aStatistically significant at alpha level of 0.05

Table 3

Mean (SD) Household Socio-economic Status (HSES) Score by Living Arrangements Among Married and Unmarried Women; Lebanon, 1996

Living arrangements	Married women		Unmarried women	
	Mean HSES	(SD)	Mean HSES	(SD)
Total	+0.25	(2.82)	−0.33	(3.22)
Living alone	+0.09	(4.28)	−0.54	(3.56)
Living with spouse only	+0.23	(2.90)	–	–
Living with a married adult child	−0.13	(2.50)	−0.54	(2.80)
Living with unmarried children only	+0.27	(2.79)	−0.18	(2.91)
Living with non-children others	+1.72	(2.95)	+0.43	(3.20)
<i>F</i> -test	8.709 ^a		5.608 ^a	

^aStatistically significant at alpha level of 0.05