

Women's productive and reproductive choices: how intergenerational households influence labor force participation among Egyptian women

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Abstract

Mother-in-law co-residence could either increase or inhibit female labor supply. The effect depends on the potential earnings of the daughter in law as well as expectations for care-giving. In one view, the mother-in-law may consider the marriage of her sons an occasion to “retire” and will expect that the daughter-in-law will care for the home. According to another view, if a daughter-in-law can obtain attractive wages the mother-in-law might facilitate rather than hinder the labor supply of her daughter-in-law in the interest of a better household income. We test the effect of mother-in-law co-residence on the labor participation of daughters in law using the Egyptian Labor Market Survey waves of 1998 and 2006. Using a bivariate probit model to instrument co-residence using lagged co-residence and the number of children, we find that mother-in-law coresidence increases female labor supply in urban areas and has no significant effect in rural areas.

Introduction

Middle Eastern countries have some of the lowest rates of female labor force participation in the world. By many accounts extrahousehold discrimination against female workers and cultural constructions of gender roles account for this disparity. This paper focuses on intrahousehold factors that could alter female labor force participation. In particular, we ask whether the presence of a co-resident mother-in-law affects female labor supply.

In Western countries expectations of grandparental childcare assistance are a significant contributor to a woman's labor supply decision. Little is known about the role of co-resident seniors in the household economy of Middle Eastern households.

Background

Despite recent trends in economic growth, urbanization and migration, all of which generally disrupt extended family structures (Eft & Eft 2005; Yount 2009), intergenerational co-residence is still the prevailing norm in Egypt. Although intergenerational co-residence is thought to serve as a primary mechanism to meet the needs of the ageing population (Kadir 2007), several studies suggest that intergenerational family structures offer bidirectional benefits to both children and parents (Chen 2000; Chen 2005; Yount 2009; Yount 2005). As parents age, not only do those that co-reside benefit from the care they receive from their children, they are often able to provide their co-residing children with additional time to help with childrearing as well as the monetary assets to cover living expenses (Agree et al. 2002; Coall et al. 2009). In some situations children chose to live with parents who may have more stable living arrangements.

New demographic developments have added complexity to intergenerational co-residence. As the ageing population increases, so too does morbidity and disability in older adults. In the past few decades, Egypt has experienced a substantial growth in its older populations as well as a

concomitant increase in the average life expectancy. As more people are living longer, many develop chronic physical and cognitive impairments that require the care of younger family members. These trends have significant implications for intergenerational co-residence. As the population in Egypt continues to age and acquire more late-life illnesses and disabilities, the traditional benefits such as help with childcare and household chores diminishes, placing additional burdens on the younger household members, particularly the women. Such trends may exert an effect on labor force participating among daughters-in-law who must serve as dual caregivers for both children and older adults in the household.

Although there is a growing body of research on the intersection of work and marriage in Egypt, less emphasis has been placed on the intersection of family structure and women's participation in the labor force in Egypt. In this analysis we explore the association between mother-in-law co-residence and labor force participation among Egyptian women and hypothesize that the association between co-residence and recent participation in the labor force is modified by the age of the mother-in-law.

Methods

Sample

This study uses the 1998 and 2006 Egyptian Labor Market Survey (ELMS). The ELMS is a nationally representative longitudinal survey of the Egyptian population and includes 4816 households. Of the original sample, 3,684 households were surveyed again in 2006 along with new households that split from original households for a total of 8,349 surveyed in 2006. The ELMS sample was restricted to ever-married women (as of 1998) who were also in the 2006 wave of the survey (n=1972)

Measures & Analysis

Because the decision to co-reside may be simultaneous with female labor supply decisions, we chose to identify the co-residence status in 2006 with lagged variables to serve as instruments. In particular we used co-residence in 1998 and number of children in 1998 as instruments for co-residence. We argue that these factors could be excluded as direct determinants in the labor supply equation. Co-residence history 6 years ago should have little bearing on a woman's decision to supply labor in the current period. Although having small children does directly affect labor supply, we reason that any children present 6 years ago are now of school age and less of an impediment to female labor participation.

Since both co-residence status and labor supply are dichotomous variables we chose a bivariate probit model with exclusion restrictions on the aforementioned two determinants of co-residence status. We stratified the analysis by urban vs. rural because our theory leads us to predict that the better wage offers in the urban areas would change the impact of mother-in-law co-residence. Other control variables are standard in labor supply literature: measures of household income, woman's educational level, age, presence of teens,

Preliminary Results

As shown in Table 1. The bivariate probit model in the urban area produced a Rho statistic of negative 0.450 showing that the residuals in the labor supply and co-residence equations are correlated and that the bivariate probit model is efficient compared to estimating one equation at a time. For urban women mother-in-law coresidence shows a positive association with labor force participation, but there is no similar effect for rural women. In contrast, for rural women additional teenagers in the household have a positive effect on female labor participation, but

there is no similar effect for urban women. Educational attainments positively predicted labor supply in urban, but not in rural women.

We found no evidence that co-resident mothers-in-law are inhibiting their daughters-in-law from participating in the labor force. To the contrary, multi-generational households in urban Egypt facilitate women's participation in the labor force.

One explanation for these findings may be that rural Egyptian women can call on younger family members to take care of household chores if and when they do work outside the home. In urban Egyptian families, teenagers are occupied by school, and less likely to facilitate a woman's labor supply decision. There does not appear to be any impact of schooling on rural labor supply, suggesting the under-development of work opportunities that capitalize on the higher productivity of educated rural Egyptian women.

Table 1. Bivariate probit model of labor participation and mother-in-law coresidence

Model of probability woman involved in formal labor in 2006

| Variable | Urban | Rural |
|---------------------------------------|-----------------------|----------------------|
| Co-resides with mother in law in 2006 | 0.810 ** (0.328) | -0.008 NS (0.322) |
| Education level | 0.319 *** (0.03) | -0.002 NS (0.053) |
| Age | 0.032 *** (0.006) | 0.001 NS (0.008) |
| Number of teens | 0.066 NS (0.052) | 0.150 ** (0.068) |
| Household size | 0.022 NS (0.024) | -0.001 NS (0.024) |
| Household Income | 0.016 NS (0.037) | 0.141 ** (0.049) |
| Constant | -2.300 *** (0.341) | -0.560 NS (0.416) |

Model of whether co-resides in 2006

| | Urban | Rural |
|---------------------------------------|-----------------------|-----------------------|
| Co-resided with mother in law in 1998 | 1.558 *** (0.147) | 1.552 *** (0.149) |
| Number of children | -0.041 NS (0.037) | 0.014 NS (0.042) |
| Household income | 0.156 ** (0.066) | 0.170 ** (0.07) |
| Education level | -0.120 ** (0.059) | -0.096 NS (0.077) |
| Traditional values scal | 0.406 NS (0.269) | -0.126 NS (0.226) |
| Age | -0.013 NS (0.01) | -0.050 *** (0.011) |
| Constant | -2.613 *** (0.632) | -0.884 NS (0.581) |
| Rho | -0.450 ** | 0.112 NS |
| N | (1265.) | (707.) |

*** p<0.001; ** p<0.05, * p<0.10

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