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CORESIDENCE OF OLDER PERSONS IN INDIA: WHO RECEIVE SUPPORT AND WHAT ARE THE LEVELS OF FAMILIAL SUPPORT?

Kinkar Mandal[1] and Lekha Subaiya[2]

Abstract

Traditionally, in the context of South Asian countries, one finds a strong patrilineal practice of older persons coresiding with their children. In these countries, typically, the absence of social security has led to children playing a crucial role in supporting their parents. Simultaneously, the strong familial norms and values also contribute to the elderly living with their children. In this context, the present study aims to understand the levels of family support and the kind of support elderly receive from their children in India. For this purpose, the study, using Building a Knowledge Base on Population Ageing in India (BKPAI) 2011 data, has found that 'coresidence is the primary form of family support received by older persons in India. In addition, it is argued that the gender status of older persons is strongly associated with coresidence. Further, from the data, it emerges that older persons living in urban areas, widows, and those belonging to the Muslim community are found to be in good health and have higher chances of coresidence with their adult children.

Keywords: Coresidence; family; support; value; older persons.

Introduction

With advancement in medical technology, health, and healthcare-related facilities mortality has reduced and life expectancy increased. Fertility rate has come down due to changing social norms, values, and the increasing use of modern contraceptive methods. As a result of these developments there are very few number of children who support the older persons in their family. According to the 2011 Census, there are 104 million older people in the country, constituting 8.6 per cent of the population. The proportion of older persons in India varies from 6.5 per cent in Uttar Pradesh to 12.4 per cent in Kerala (Chandramouli 2011). India has a very rich socio-cultural tradition of multigenerational households living together with older persons getting both physical and emotional support. In Indian extended family system, children have the responsibility of taking care of the older parents with honour and respect. In the earlier patriarchal society eldest son was assigned the responsibility of caring for the elderly parents. On the other hand, older parents played a significant role in nurturing the young in the family and were considered guardians of maintaining traditional values and morals (Nayar 1999). However, this tradition has undergone a drastic change due to rural-urban migration, westerinisation and nuclearisation of the family (Chaudhuri and Roy 2009). Hence, policymakers and researchers have to focus on the issue of family support for older persons.

Coresidence with adult children in an extended family is a common type of support in India with kith and kin providing personal and emotional support to the elderly (Nandal, Dhatri and Kadian 1987). The joint family system is an ancient Indian institution and is considered to be a natural support system for the elderly. However, over the last few decades, this traditional joint family system was

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undergone a transformation due to the urbanisation and modernisation process. With modernisation the concepts of independence, personal mobility, and personal achievements have come to take the centre stage, influencing thereby changes in the structure and functioning of the family system (Sebastian and Sekher 2012). While previously, in most of the Indian families, adult sons and their family members where expected to take care of the older parents with daughter-in-laws being the primary caregivers (Panigrahi 2009). However, in the modern context, due to increasing levels of education and rising professional opportunities, working women are unable to support the elderly like before.

However, at the same time, as Davanzo *et al*. (2011) point out, prolonged survival of women leaves them alone after the demise of their husbands coupled with other dimensions of gender and families which keep them susceptible to a lonely living. Similarly, Panigrahi (2009) and Lamb (2000) argue that the proportion of elderly living alone is rising with a growing neglect of the care for the older people, especially of widows and women from socially, economically, and politically marginalised groups. Further, they observe that children prefer to live alone in families where women are ill-treated and abused. Many old people, who have lost their spouses, live alone possibly because they wish to be independent and have deep attachments to their own homes (Townsend 1963).

Literature Review

Economic and Sociological Perspectives on Family Support to Older Persons

The reason why families provide support, or the motivation for support, has been examined in the empirical literature by economists and sociologists. At the macro level, social scientists have focused on the welfare of each generation and used perspectives such as Modernisation (e.g., Cowgill 1986), Direction of Wealth Flows (Caldwell 1976) and the Old Age Security Hypothesis (e.g., Mead Cain 1978) as part of theorising about the direction of flow of intra-family support.

At the micro-level, the motivation for family support has been explained using the concepts of 'altruism' and 'exchange' by economists. The first one 'altruism' explains that children transfer support to their parents because they are solely motivated by care for their parents and are interested in their well-being. The concept of 'altruism' originated in Gary Becker's A Treatise on the Family (Becker 1974: 1981). The second one 'exchange' is derived from rational choice theory wherein human behaviour is governed by rationality when they transfer support to family or others. In this perspective, children provide food, clothing, shelter, money or time to their older parents for past, current or future transfers from their parents. Flowing the economic literature, children transfer support to their parents with an expectation of repayment (Becker 1974 and Cox 1987).

'Reciprocity' is the third theory that explains the motivation for support, which is similar to the exchange theory. The model assumes that reciprocity is a long-term support relationship between parents and children with an expectation of returning in future (Silverstein *et al*. 2002). Anthropologist studied reciprocity in the context of the distribution of goods and services, which was concerned with the principle of the gift-giving relationship between the two groups, but not with market or capital-labour relationships (Tomini 2010). In practice, reciprocity is too obligate to give gifts and obligate to reciprocate gift (Tomini 2010). The concept of reciprocity has been studied widely in intergenerational

family studies. The parents give support to their children through education, housing, food, clothes with an expectation that their children will give support to them in older age. This exchange of support has certain norms of filial obligations and actions such as providing care to children during their infancy and childhood. As a result of that children repay their parental debts in terms of caring for their aged parents (Lamb 2000). Traditionally, the family had played a strong role in caring for dependent older persons. Older parents coresiding with children was a process of mutual exchange of material, physical, and emotional support for an older person (Yean-Ju Lee 1994). This was influenced by children's past receiving of parental care, socioeconomic resources, availability of children, and moral obligation toward older parents (Zhang 2014).

Levels of family support in South Asia and India

In the context of developing countries, the role expected of children is to support their older parents. Coresidence with children is a common type of support much prevalent in developing countries as compared to developed countries. Continent-wise variations indicate that a higher percentage of coresidence with the adult child is found in Asia (66.3 per cent for male and 68.3 per cent for female), whereas, in Africa, the percentage of older men living with an adult child ranges from 25 per cent in Mozambique to 70 per cent in Egypt and Latin America. Older adults residing with children is higher in Peru (60 per cent) and lower in Bolivia (41 per cent). In Asia, the highest proportion of older men living with an adult child (80 per cent) is observed in Pakistan (Bongaarts and Zimmer 2002). The intergenerational household rate of coresidence with parents and children is higher in southern European countries as compared to northern and continental Europe, and the proportion of older persons living with their children is low and almost non-existing in northern Europe (Attias-Donfut and Ogg 2005). In Asian countries, approximately three-quarter of older people coreside with their adult children (Martin 1990). Cameron and Cobb-Clark (2008) show in their work that, in Indonesia 62.5 per cent older persons are living with one or more of their children, 21.3 per cent are living with their spouses, nine per cent are living with others, and only seven per cent are living alone. In a study by Martin (1990), where coresidence patterns in China, Korea, and Japan are looked at, it has been found that the predominant form of coresidence is of older persons with their children. The study also shows that, among East Asian countries, China accounts for the maximum percentage (80 per cent) of people coresiding, followed by Japan (65 per cent) and Korea (64 per cent). Coresidence with children in Bangladesh is found to be one of the family traditions across generations. However, this tradition has undergone a changed due to migration and urbanisation in Bangladesh. Ghuman and Ofstedal (2004) have estimated the pattern of coresidence between sons and daughters. They have found that older parents are more likely to live with their sons than daughters. The study also shows almost 82 per cent of the elderly coresideing with their children.

Various surveys show that India has the highest percentage of older people living with their children. NFHS-II (National Family Health Survey), found almost 94 per cent of the elderly people coresiding with their children, 2.4 per cent living alone, and 3.5 per cent living with other relations (Rajan and Sanjay 2003). National Sample Survey Office (NSSO) 60th round (2004) data shows that 5.2 per cent of Indian elderly are living alone and 12 per cent of them with their spouses. BKPAI (Building a

Knowledge Base on Population Ageing in India) data (2011) shows 6 per cent of the elderly living alone and 15 per cent with their spouses only.

Factors associated with coresidence

Coresidence of the older is population not uniform and is subject to many factors including marital status, the number of children, age, health status, financial resources, family size and the availability of support givers. The existing literature on coresidence with children is focused on different types of living arrangements with their children. Chaudhuri and Roy (2009) observe that older women are more likely to live alone than the older men. Women tend to marry relatively older men and therefore, are more likely to be widowed and live longer.

In society, married older couples are more likely to coreside with adult children than unmarried older persons when it comes to old-age support. Married older couples benefit from children in terms of paying household rents, medical bills, etc. when they are ill. Similarly, unmarried older persons need more coresidence support because of the lack of companionship and unavailability of spouses. Among the unmarried, older women are more likely to coreside in the multigenerational households than married older women or older men. A higher housing cost could be an influencing factor behind the coresidence patterns in the urban areas of Asian countries. For instance, the housing cost in urban Malaysia has enforced coresidence patterns with a small part of areas having a high density of coresidence (DaVanzo and Chan 1994). Similarly, coresidence with adult children in India is found in one type of family tradition wherein family members are attached and involved in family activities both in rural and urban areas. Older persons having more number of children means a higher livelihood and high status for both older men and women in societies. In patriarchal societies, the son must support his aged parents and more than one son older women have, there is a higher sense of livelihood with lower levels of living alone. In developing countries, a higher socioeconomic status leads to a lower likelihood of living alone and is more important than in respect of developed countries (Chaudhuri and Roy 2009).

A study by Bethet *et al.* (1999) found Taiwan, China, India, and Singapore with a higher proportion of older parents prefer to live with married sons than married daughters and therefore, that there was a strong son preference for coresidence with their married children (Ofstedal 1999). Ruggles and Heggeness (2008) using data from the Demographic and Health Survey related to 15 developing countries found intergenerational coresidence with children of all the countries on a decline due to the economic growth of the countries. Studies show that living with children and grandchildren in multigenerational households is high among uneducated and widowed women. It is expected that highly educated older persons are more likely to live alone. The educational status of older parents is negatively associated with coresidence because of the attitude and income of older parents. Similarly, it is also found that older persons with a higher income are less likely to live with their children (DaVanzo and Chan 1994).

Why should we study coresidence?

In general, it is perceived that children have a moral obligation to provide support to elderly parents. Older persons receiving support coreside with their children and prefer to live with their sons' families. In addition, income and wealth of children, needy older recipients, and emotional closeness push the elderly to coreside with their children.

Coresidence with children is a mutually advantageous arrangement (a joint decision by both the parties), involving a two-way transfer of financial and other services between older parents and adult children. Likewise, it serves the dual purpose of childcare and parents getting care and support from their children (Pal 2007). However, the proportion of elderly living alone is increasing along with the growing neglect of elderly support. Especially, older widowed or single older women often ill-treated and abused by family members, prefer to live alone. India too is showing trends similar to Western countries, i.e., functionally active and healthy elders now opt to live an independent life. There is an active component of the wealth gradient which determines the living arrangements of the elderly. Then again, economic security of the elderly emerges as a significant problem in the absence of coresidence with their children. Traditionally, the joint family system is an Indian familial norm with older persons, their children, and grandchildren living together, but this norm is declining due to industrialisation and urbanisation (Behera and Dasthagir 2015). At the same time, in contemporary Western culture, a greater emphasis is placed on the achievement of materialistic goals, excessive individualism, and self-centered and self-indulgent lifestyles that have eroded spiritual and altruistic values considered to be necessary for family harmony and unity.

Conceptual framework

Family is the basic unit in a society and is the primary institution contributing to the well-being of family members. Historically, the family was responsible for providing support and safety to older persons. However, this family structure is changing with a decline in fertility rates and the consequent reduction in the number of childbirths. As a result, there are very fewer children supporting older parents. In most of the South Asian countries, the predominant form of support older persons get is through coresidence with their children. Besides, the moral obligation on the part of families has influenced children to provide support to their older parents.

Studies have shown that the coresidence of older persons is determined by various factors among which modernisation has a strong influence on changes in the family structure. On the other hand, among demographic factors, it is the more number of children that influences coresidence. However, it is a family tradition that older parents generally live with their sons' families. Hence, having male children has the potential of influencing coresidence. Besides, the place of residence, gender, marital status, and religion of older persons have a strong influence on their coresidence. Further, modernisation effects, such as education and income of older persons, have a greater influence on their living independently. Infact, moderinasition has come to affect the traditional values of family with education acting as a strong driving force behind older persons living independently. Furthermore, older persons belonging to high-wealth quintiles and currently working are more likely to live independently. In contrast, needy older persons are directly associated with coresidence. Older persons with poor

health and needing daily living assistance have more chances of coresiding with their children. Literature shows that assets, ownership of land, aged, widows and those belonging to SC/ST community with no children have a lower level of coresidence. Thus, various factors influence coresidence of older persons. In this study, the researcher has attempted to explore the various levels and factors which impact the coresidence of older persons.

Research Questions

The main focus of this study is to understand the levels of family support to older persons and those receiving support from their children in India. To accomplish this objective, the following research questions have been framed.

What are the levels of family support to older persons in India?

What are the characteristics of older persons who coreside with children or other relatives?

Data Sources and Analytical Tool

Data sources

The data for this study has been drawn from the Building a Knowledgebase on Population Ageing in India (BKPAI, 2011), a nationally representative survey of persons aged 60 and above. BKPAI survey has covered the various aspects of the older population including demography, social and economic conditions, living arrangements and family relationships, health and access and utilisation of social benefits. The survey was conducted in the states of Himachal Pradesh, Maharashtra, Odisha, Punjab, Tamil Nadu and West Bengal. These states were selected based on the higher percentage of the population in the age group of sixty years and above as compared to the national average (BKPAI, 2011). The survey collected different types of support information such as coresidence, time, and money. Information regarding coresidence was collected in two ways currently living status and preferred living arrangement. Firstly, information on the types and composition of living arrangements of older persons was collected. Secondly, information was collected on how many of the older persons were living with their children, spouses, alone or other relatives. The respondents were asked the question of who were currently living with them. The survey focused on older persons coresiding with their children or other relatives and spouses or alone and their socio-economic characteristics.

Analytical approach

The analysis begins with descriptive statistics of both individual and household samples aspect of observing the patterns of old age people's coresidence. Followed by this, a binary logistic regression model is used for analysing the correlates of coresidence with older parents, wherein living alone and spouses are coded as 0 and living with children and other relatives coded as 1. The independent variables are further divided into three models to examine the causality of coresidence with each of the variables. Model-I includes demographic variables such as age, gender, place of residence, marital status, number of children. Further, marital status is divided into three categories i.e., married, widowed, and others, with married as the reference group. The age of older persons is grouped into

three categories of 60-69, 70-79, and 80+ years. The gender variable is dummy where if the respondent is male=1, otherwise=0. Similarly, if respondents' place of residence is urban=1, otherwise=0. Further, religion of the elderly is divided into three categories i.e., Muslim, Sikh, others, and Hindu where Hindu is the reference group. The number of living male children of the respondents is grouped into three such as one male child, two male children, and more male children, where one male child is the reference group. Similarly, the number of female children is grouped into one female child, two female children and more female children, where one female child is the reference group.

Model-II includes socioeconomic characteristics such as wealth index, education attainment, employment history and social benefits. Generally, the wealth of older persons is measured by the economic variable, which is divided into four categories as second, middle, fourth, highest and lowest, where the lowest wealth index is the reference group. The respondents' education refers to the completed years of schooling and is grouped into three such as never gone to school, 1 to 4 years, 5 to 7 years, and 8+ years of schooling, where never gone to school is the reference group. The older persons' employment history is dummy, where the respondents are currently working=1, otherwise=0. Whereas, the older persons' social pension is dummy i.e., receiving pension=1, otherwise=0.

Model-III includes health and functionality variables such as self-rated health, vision and memory disability, Activity of Daily Living (ADL), and abuse history of older persons after age 60. The self-reported health of the respondents is divided into four categories such as excellent/very good, fair, poor, and good health where good health is the reference group. The vision disability is dummy, where the respondent's vision disability=1, otherwise=0. Similarly, memory disability is dummy, where the respondent memory disability=1, otherwise=0. The respondents' daily living activity is a series of activities performed by them such as bathing, dressing, using the toilet, mobility, continence, and feeding. This is grouped into two categories such as at least one assistance=1, otherwise=0. Whereas, the abuse history of the elderly is divided into three categories such as after 60 years, in the last month, and never abused, where never abused is the reference group. The above-said models have been analysed by using STATA 12 software.

Findings

An older person coresiding with children and head of the household are common types of support in India. The head of the household has some role and responsibility in running the household, whereas, older parents look after grandchildren, help with cooking, washing, farming, and other activities of the family. Similarly, younger children have respect and filial piety towards elder parents. This mutual exchange of support is determined by the strength of family relationships.

The survey collected information about the respondents as well as their households. We selected households having at least one older person aged 60 years and above, both from rural and urban areas. According to the census definition, a household is a group of people who live and take food together in a common kitchen. In this study, household characteristics are rigidly applicable to understanding the family relationships. Table 1 represents the relationship pattern of older persons coresiding in the same household. The proportion of older persons as household heads is highest. Nearly 73 per cent of older persons in India are found to be household heads of one older person

households. Further, 46 per cent of household heads live in two older person households and 27 per cent of household heads live in more than two older person households. In about 42 per cent of two older person households there, is husband or wife relation with the head of the household. On the other hand, 29 per cent of older persons live in more than two older person households and their relation with the head of the household is husband or wife. Among, more than two older person households, 23 per cent have son or daughter as the head of the household. However, 23 per cent of the older persons living in one older person households are related to the head of the household as parents, while eight and five per cent in two older and more than two older person households respectively. Furthermore, many of the older persons share households with parent-in-laws, son-in-laws or daughter-in-laws, brothers or sisters, brother-in-laws or sister-in-laws, nieces or nephews in relation with the household heads

Table 1: Distribution of Older Person by Relationship to the Head of the Household Based on the Number of Older Persons in a Household from the Roster Data (2011)

Relationship with head of the household	One older person HHs	Two older person HHs	More than two older person HHs
Head	72.94	46.01	26.83
Wife or Husband	0.52	42.15	29.27
Sons or daughters	0.12	0.69	22.76
Sons-in-law or daughters-in-law	0.03	0.09	3.66
Grandchildren	0.08	0.04	0.00
Parents	23.39	8.71	5.69
Parents-in-law	1.73	0.89	2.44
Brothers or sisters	0.34	0.69	4.07
Brothers-in-law or sisters-in-law	0.05	0.16	2.85
Nieces/Nephews	0.02	0.00	0.41
Other relatives	0.71	0.45	1.63
Adopted/Foster/Step children	0.03	0.04	0.41
Domestic servants	0.00	0.02	0.00
Others not related	0.03	0.04	0.00
Total	**100.0**	**100.00**	**100.00**
Total Number	**5,950**	**4,477**	**246**

Source: Calculated by the researcher based on BKPAI household roster data.

Traditionally, an older person in the family is the head of the household in India. Table 2 shows that 77.7 per cent of older persons coreside with their children and other relatives and 22.3 per cent of older persons do not coreside with their children. It is illustrated that still family is the main source of support to older persons in India and it is an Indian cultural norm that children should support their older parents. However, among men 76.5 per cent coreside and 78.9 per cent of women coreside with their children, which points out that women are economically dependent on their children and that they do not have other options to live separately. The probability of older men (76.5 per cent) coresiding with their spouses or living alone is higher than older women (78.9 per cent). This indicates that older men continue to hold the property and they live independently. Further, the study has found

that urban Indian older persons (80.4 per cent) are more likely to coreside with their children than their rural (76.8 per cent) counterparts. In urban India, children are more likely to share their house with parents as part of reducing the housing rent and scarcity of space. On the other hand, both rural and urban older women tend to stay with their children than older men. About 82.2 per cent of urban women coreside with their children as compared to 77.6 per cent of the older persons in rural areas. It is a clear indication of lack of coresidence support of older women, as compared to older men.

Table 2: Percentage Distribution of Older Persons by Coresidence Based on their Residence and Gender in India, 2011 (N= 9849)

Coresidence	Rural			Urban			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Do not coreside	24.1	22.4	23.2	21.8	17.8	19.6	23.5	21.1	22.3
Coresidence	75.9	77.6	76.8	78.2	82.2	80.4	76.5	78.9	77.7
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Total Number	**2,451**	**2,685**	**5,136**	**2,219**	**2,494**	**4,713**	**4,670**	**5,179**	**9,849**

Source: Calculated by the researcher using BKPAI individual-level data.

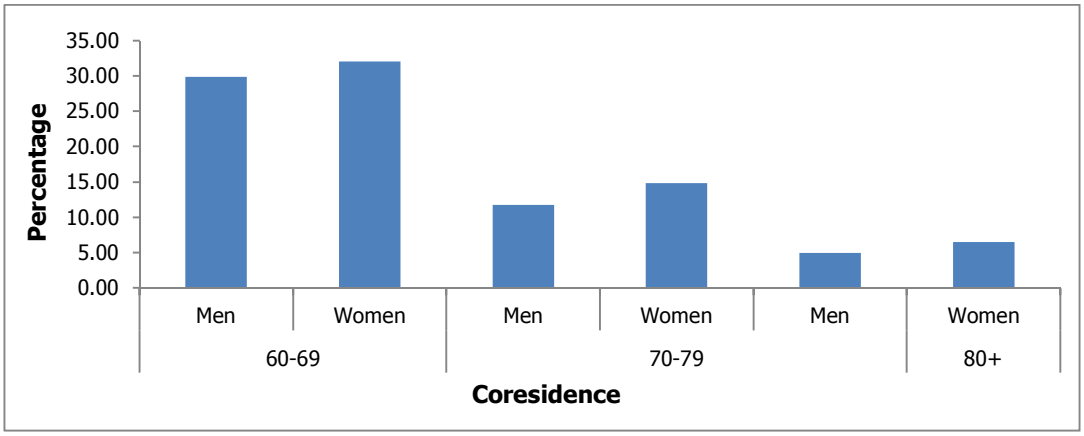
The BKPAI survey has collected information for the seven demographically advanced states. Table 3 shows the interstate diversification of the coresidence of older persons in India. It can be seen from the table that among the northern states, Punjab accounts for a higher per cent (84.6 per cent) of older persons coresiding with their children, followed by Himachal Pradesh (79.6 per cent). Similarly, in the eastern states like West Bengal (83.7 per cent) and Odisha (83.6 per cent) of older persons coreside with their children. On the other side, the southern state of Tamil Nadu accounts for the lower per cent (56.5 per cent) of older persons coresiding with their children as compared to the other Indian states. The state of Tamil Nadu is followed by the western pattern of coresidence, with parents more likely to stay independently. Another reason for a lower proportion of older persons coresiding in Tamil Nadu could be the difference in the demographic and socio-economic profile of the state. About 84 per cent of older persons in Kerala coreside with their children. On the other hand, in Maharashtra, 81.3 per cent of older persons coreside with their children. Except for Tamil Nadu, all these states show that family is the main source of support for older persons in India.

Table 3: State-wise percentage distribution of coresidence of older persons in India, 2011 (N=9849)

Coresidence	Himachal Pradesh	Punjab	West Bengal	Odisha	Maharashtra	Kerala	Tamil Nadu	Total
Do not coreside	20.4	15.4	16.3	16.4	18.7	16.0	43.5	2080
Coresiding	79.6	84.6	83.7	83.6	81.3	84.0	56.5	7769
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Total Number	**1,482**	**1,369**	**1,275**	**1,481**	**1,434**	**1,365**	**1,443**	**9,849**

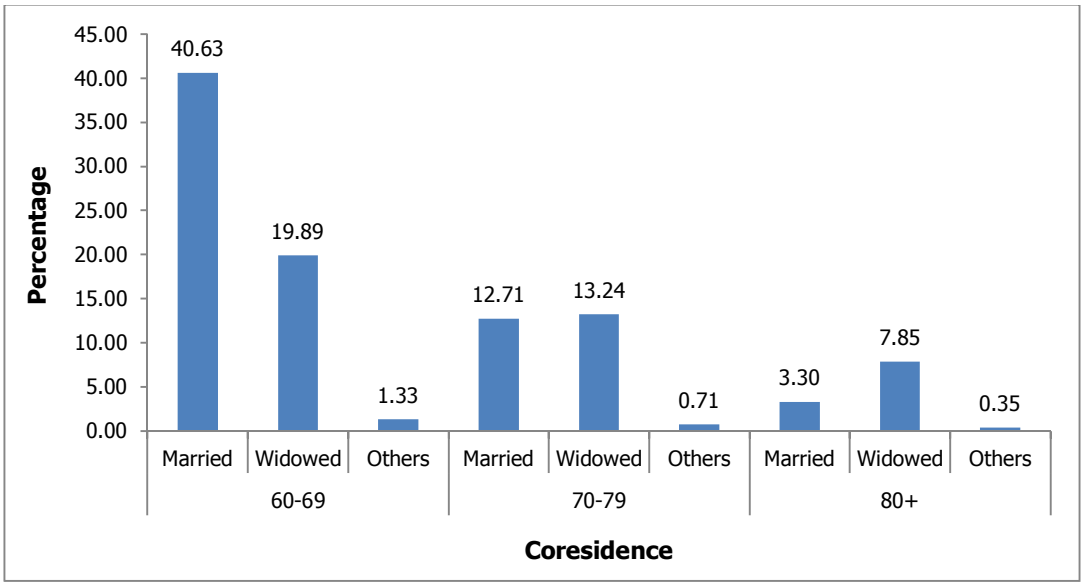
Source: Calculated by the researcher using the BKPAI individual-level data.

Figure 1: Coresidence Percentage Distribution of Older Persons by Age and Gender



Source: Calculated by the researcher using the BKPAI individual-level data

Figure 2: Coresidence Percentage Distribution of Older Persons by Age and Marital Status



Source: Calculated by the researcher using BKPAI individual-level data

Determinants of Coresidence: Binary Logit Regression Results

The findings of this study have contributed to a nuanced understanding of the trends and patterns of coresidence in India, in three major ways. It was focused on how older parents' demographic, socioeconomic, and health and functional characteristics influence their coresidence. This coresidence of the elderly is determined by various qualitative and quantitative variables. Three logit models were estimated with the use of these variables for predicting the likelihood of coresidence (Table 4). Model-I includes demographic variables i.e. to analyse whether demographic characteristics influence coresidence. Model-II includes socioeconomic variables such as wealth index, educational attainment, employment history, and social benefits. The reason for including these variables is to understand whether socioeconomic variables influence the likelihood of coresidence. Model-III includes health and

functionality variables such as self-rated health, vision and memory disability, ADL, and abuse history to understand whether health and functional variables affect the likelihood of coresidence.

Table 4: Determinants of Coresidence: Binary Logit Regression Results

Variables type	Variables	Model-I	Model-II	Model-III
Demographic Characteristics	Age (Ref: 60-69)			
	70-79	-0.2039*** (-3.44)	-0.3681*** (-5.78)	-0.4510*** (-6.91)
	80+	0.0292 (0.3)	-0.2660** (-2.54)	-0.4162*** (-3.83)
	Gender(Ref: Men)			
	Women	0.2266*** (3.94)	0.5985*** (8.84)	0.5826*** (8.53)
	Place of Residence (Ref: Rural)			
	Urban	0.4281*** (8.25)	0.0045 (0.07)	0.0056 (0.09)
	Marital status (Ref: Married)			
	Widowed	0.8904*** (13.55)	1.0928*** (15.4)	1.0879*** (15.18)
	Others	0.4646** (2.86)	0.5836** (3.4)	0.6153*** (3.53)
	Religion (Ref: Hindu)			
	Muslim	0.4891*** (4.38)	0.3378** (2.9)	0.3264** (2.76)
	Sikh	0.4843*** (4.77)	-0.2120* (-1.94)	-0.1541 (-1.39)
	Others	-0.1125 (-0.95)	-0.3124** (-2.51)	-0.3151** (-2.5)
	Living Male Children (Ref: One male child)			
	Two male children	-0.7790*** (-12.57)	-0.7381*** (-11.38)	-0.7445*** (-11.33)
	More male children	-0.6944*** (-9.86)	-0.6619*** (-8.91)	-0.6545*** (-8.68)
	Living Female Children (Ref: One female child)			
	Two female children	-0.0463 (-0.74)	-0.0410 (-0.63)	-0.0340 (-0.52)
	More female children	-0.3248*** (-4.62)	-0.3085*** (-4.2)	-0.2810*** (-3.78)
Socio-economic characteristics	Education (Ref: None)			
	1-4 Years		-0.1114 (-1.22)	-0.1314 (-1.42)
	5-7 Years		-0.3738*** (-4.09)	-0.3541*** (-3.84)
	8+ Years		-1.0958*** (-12.91)	-1.0643*** (-12.4)
	Wealth Index (Ref: Lowest)			
	Second		0.9362*** (12.24)	1.0134*** (12.98)
	Middle		1.4529*** (16.64)	1.5531*** (17.39)
	Fourth		2.1701*** (21.31)	2.2715*** (21.83)
	Highest		2.5982*** (22.79)	2.6640*** (22.92)
	Employment (Ref: Not currently working)			
	Currently working		-0.2115** (-3.18)	-0.1554** (-2.3)
	Social Benefits (Ref: Not receiving a pension)			

	Receive pension		-0.5889*** (-6.88)	-0.6018*** (-6.96)
Health and Functional Characteristics	Self-rated Health (Ref: Good)			
	Excellent/ Very good			-0.1686** (-2.03)
	Fair			-0.1123* (-1.69)
	Poor			-0.1142 (-1.28)
	Vision (Ref: No disability)			
	Vision disability			0.1269** (2.2)
	Memory (Ref: No disability)			
	Memory disability			0.5416*** (7.78)
	ADL(Ref: Do not need any assistance)			
	Need at least one assistance			0.4315** (3.35)
	Abuse history (Ref: Never)			
	After 60 years			-0.6284*** (-5.53)
	In the last month			0.0288 (0.23)
Constant		2.1164*** (16.42)	1.3760*** (9.74)	1.4208*** (7.03)
Log likelihood		-4807.94	-4421.55	-4352.71
LR Chi-square		538.99	1311.76	1449.45
Pseudo R-square		0.0531	0.1292	0.1427
Number of observations		9849	9849	9849

Source: Calculated by research using BKPAI individual-level data

Notes: Dependent variable is coresidence.

Figures in parentheses are t values

* .05 level

**.01 level

***.001 level

The logit model results show that the coresidence of older persons is determined by many factors (Table 4). From the model-I, it is clear that demographic variables are important factors in influencing coresidence, as higher age group older persons belonging to 70-79 years are less likely to coreside than young-old persons (60-69 age group), whereas women and widows are more likely to coreside than older men and those married. In comparison to married persons, positive and significant marital statuses such as widowhood and others show more likeliness of coresidence as a form of support from their children. Similarly, the number and gender of children can affect coresidence. If older persons are associated with more than one son and daughter, it affects coresidence negatively. So, either one male or one female child-parent has high chances of coresidence. Also, coresidence tends to be more prevalent in urban areas than in rural areas because higher housing rents in urban areas prevent elderly parents from residing separately (Aytaç 1998). In other words, this higher rate of coresidence in urban areas could be due to the traditional attitude towards parent-child coresidence (Martin 1989). Our study also reflects the same results of Martin's (1989) that most of the Asian countries such as Korea, Malaysia, the Philippines, and Fiji show a larger likelihood of coresidence in

urban areas. In the case of religion, Muslim older persons are more likely to stay with their children than Hindus. It shows that Muslim kinship structure is different from the other communities (Jadhav 2013).

The demographic factors in respect of coresidence could change when socioeconomic variables are considered in the analysis. From model-II, it is evident that even if socioeconomic benefits are considered, the old-old and oldest-old persons have a lesser likelihood of coresidence. In the case of place of residence, older persons are less likely to coreside with their children. Similarly, religion has an effect on coresidence in that both Sikhs and others show a lesser likelihood of coresiding than Hindus. Gender and marital status of older persons and the number of children do not affect coresidence, even when socioeconomic factors are included. In the case of socioeconomic factors, education, wealth, employment status, and social benefits have their own impact on coresidence. For instance, education shows a strong negative association with coresidence; and the coefficient is higher for older persons with 8+ years of schooling as compared to those with no education (less than one year). Those elderly with more years (5-7 years and 8+ years) of schooling do not coreside with their children. This is because, older persons with a higher educational attainment are capable of supporting themselves and, therefore, they do not coreside with their children (Aytaç 1998). Wealth Index shows a positive association in that the coefficient increases substantially with an increase in wealth quintiles. Both currently working and receiving pension are associated with a lower likelihood of coresidence. Older persons active in their work are less likely to coreside with their children, as they are self-supported. Similarly, older persons receiving social benefits like pension are less likely to coreside with their children. This implies that pension receiving elders prefer to live independently.

Model-III tested the health and functional influence along with demography and socioeconomic factors on the coresidence status of the elderly. When health and functional variables are added in the analysis, the effect of age group, women, place of residence, marital status, religion, number of children's, education status, wealth index, employment status, social benefits is the same as model-II. Studies show that living with children improves the health of older persons (Johar *et al.* 2015). However, excellent and good health are associated with a higher likelihood of living independently. Disability among the elderly is a strong predictor of coresidence: older persons suffering from vision and memory disabilities are more likely to coreside. Similarly, elderly persons with at least one ADL difficulty are more likely to coreside. If the elderly have a higher performance of ADL, then there is a greater chance of living independently. Johar *et al.* (2015) found that if the widowed older mother needed at least one ADL, the likelihood of coresidence increased significantly. The study results also show that older persons facing abuse after sixty years of age are less likely to coreside with their children. Studies show that older persons with poor health face more abuse by their children. Sebastian and Sekher (2010) in their study found that widowed older women were subjected to more neglect by their sons, daughters-in-law, and sons-in-law. Raju and Gupta (2018) found both health and disability of older persons increasing their vulnerability to abuse

Discussion

The foregoing descriptive and regression analyses bring out the levels of support older persons receive coresiding with their children as also the socioeconomic characteristics associated with coresidence. Coresidence implies financial, emotional, and in-kind support to older persons (Lee 1994). The findings of this study show that coresidence with adult children is still high in India, despite the nuclearisation of the traditional family system. Studies in the Indian context have also found that coresidence with adult children is a common type of support (Nandal, Dhatri and Kadian 1987).

Older persons not only receive support from their children but also have the responsibility of running their households. In India, older persons heading the household and coresiding with their married or unmarried children is very common. Approximately, 72 per cent of older persons stay in one older person heading households. However, with respect to coresidence with children, the study was found that currently married older men are more likely to coreside. In this study, three binary logit regression models have been used. All variables are found to be significant with an increased probability of coresidence. As per the analysis, older men, widowed, and Muslim older persons are more likely to coreside with their children. Additionally, health and functional characteristics like vision disability, memory disability and ADL assistance play an important role in the older person's coresidence. Simultaneously, socioeconomic characteristics such as lower educational attainment, higher wealth quintiles, not currently working and not receiving social pension are the factors that influence older persons to coreside.

The coefficient of older person characteristics shows that the gender of older persons is a significant predictor of coresidence and is consistent with the previous studies in the Indian context (Panigrahi 2009 and Lamb 2000). Older women are more likely to coreside with their children, and the majority of them are widows who are more economically dependent on their children. Coresidence tends to be more when parents live in rural areas. The religion of older persons is associated with coresidence. Muslim older persons are more likely to coreside with their children. Muslims have a different kinship structure a strong filial piety and children coresiding with their parents (Croll, 2006). Coresidence is more common in those cases with a son. An older person who has sons or one son is more likely to coreside influenced by the family tradition that the son inherits property from his parents (Johar 2015).

Modernisation predicts that the higher socioeconomic status of older persons has a negative effect on coresidence with their children (Sebastian and Sekher 2012). The results of the present study also show that the higher socioeconomic status of older persons is negatively associated with coresidence; highly educated and workable older persons have a negative association with coresidence. ADL assistance of older persons indicates a crucial factor of coresidence. Chen (2015) reports that if older persons need at least one ADL assistance the likelihood of their living with children increases. Studies have shown that older persons with vision and memory disabilities are more likely to coreside with their children.

Conclusion

The data-based analysis of older persons' coresidence with children indicates that a large proportion of the elderly is living with children and other relatives. A majority of them are economically dependent on others. Traditionally, family members are expected to provide support to older parents. However, this tradition is rapidly breaking down due to various factors such as modernisation, urbanisation, industrialisation, expansion of education and media, increased income and increasing female labour force participation. This in turn has resulted in the elderly living alone. In contrast, the coresidence pattern varies across different religious groups. The Muslim community has strong cultural norms with children being more enthusiastic about sharing the house with their parents.

The data shows that health and functional factors such as self-rated health, vision and memory disability, the performance of the activity of daily living, and abuse history are accurate predictors of coresidence. This variable has a significant and positive influence on the coresidence of older persons. The wealth of older persons indicates that financially strong older persons are more likely to coreside with their children. There is also an indication of modernisation effect on coresidence that highly-educated, currently working and getting social pension older persons are negatively associated with coresidence with children. They prefer to live independently with self-support.

It is reasonable to observe that even with rapid economic development in India, the majority of older persons coreside with their children, which perhaps is part of parents' early investment to secure the support of their children when they are in need i.e., in their old age journey. Simultaneously, coresidence implies a mutual benefit for children as well as parents. For instance, when adult children go to work, older parents look after their grandchildren. Moreover, elder people receiving support from their children is part of Indian culture. Hence, older persons can receive coresidence support from their children.

References

Jadhav, K S (2013). Living Arrangements of the Elderly in India: Who lives alone and what are the patterns of familial support? Session 301: Living arrangement and its effect on older people in ageing societies IUSSP 2013 Busan, Korea.

Aytaç, I (1998). Intergenerational Living Arrangements in Turkey. *Journal of Cross-Cultural Gerontology*, 13: 241-64.

Becker, G S (1981). *A Treatise on the Family*. London: Cambridge: Harvard University Press.

Bengtson, M S (1994). Intergenerational Solidarity and the Structure of Adult Child-Parent Relationships in American Families. *American Journal of Sociology*, 103 (2): 429-61.

Chan, J D (1994). Living Arrangements of Older Malaysians: Who Coresides with their Adult Children? *Demography*, 31 (1): 95-113.

Chen, F (2005). Residential Patterns of Parents and Their Married Children in Contemporary China: A Life Course Approach. *Population Research and Policy Review*, 24 (2): 125-48.

Cox, D (1978). Motives for Private Transfers. *Journal of Political Economy*, 95 (3): 508-46.

Gupta, S S (2018). Elder Abuse in Maharashtra: Extent, Forms, and Policy and Programmatic Implications. In M K Rajan (ed), *Abuse and Neglect of the Elderly in India*. Springer Nature. Pp 91-112.

J Croll, E (2006). The Intergenerational Contract in the Changing Asian Family. *Oxford Development Studies*, 34 (4): 473-91.

Kim, Ia (2003). Patterns of Family Support and the Quality of Life of the Elderly. *Social Indicators Research*, 62: 437-54.

Kumar, S I (2003). Living Arrangements among Indian Elderly: New Evidence from National Family Health Survey. *Economic and Political Weekly*, 38 (1): 75-80.

Mary Beth Ofstedal, J K (1999). Intergenerational Support and Gender: A Comparison of Four Asian Countries. 27 (2): 21-41.

Mechtraud, S (1955). Durkheim's Concept of Solidarity. *Philippine Sociological Review*, 3 (3): 23-27.

Meliyanni Johar, S M (2015). Reciprocity in the Formation of Intergenerational Coresidence. *Journal of Family and Economic Issues*, 36 (2): 192-209.

Meliyanni Johar, S M (2015). Reciprocity in the Formation of Intergenerational Coresidence. *Journal of Family and Economic Issues*, 36 (2): 192-209.

Ofstedal, S G (2004). *Gender and Family Support for Older Adults in Bangladesh*. PSC Publications.

Pal, S (2007). *Effects of Intergenerational Transfers on Elderly Coresidence with Adult Children: Evidence from Rural India*. Bonn, Germany: Brunel University and IZA.

Panigrahi, A K (2009). *Determinants of Living Arrangements of Elderly in Orissa: An Analysis*. Bangalore, India: Institute for Social and Economic Change.

Roy, A C (2009). Gender Differences in Living Arrangements Among Older Persons in India. *Journal of Asian and African Studies*, 44 (3): 259-77.

Sekher, D S (2010). Abuse and Neglect of Elderly in Indian Families: Findings of ElderAbuse Screening Test in Kerala. *Journal of The Indian Academy of Geriatrics*, 6: 56-60.

Sekher, D S (2012). *Intergenerational Care and Support for Elderly: Evidence from Kerala State, India*. Stockholm.

Tomini, F (2010). *Transferring to Family and Friends: A Review of the Motives, Evidence, and the Role of Economics*.

Yean-Ju Lee, W L (1994). Sons, Daughters, and Intergenerational Support in Taiwan. *American Journal of Sociology*, 99 (4): 1010-41.

Zhenmei Zhang, D G (2014). Coresidence With Elderly Parents in Contemporary China: The Role of Filial Piety, Reciprocity, Socioeconomic Resources, and Parental Needs. *J Cross Cult Gerontol*, 29: 259-76.

Zimmer, J B (2002). Living Arrangements of Older Adults in the Developing World: An Analysis of Demographic and Health Survey Household Surveys. *Journal of Gerontology: Social Science*, 57B (3): S145-S157.

Appendix I: Descriptive statistic of variables used in the Binary Logit Model

Variables name	Description of the variables	Mean	Std. Dev
Dependent variable	If living with children and other relatives=1, otherwise=0	0.789	0.408
Age (60-69)	If individual's age is 60-69=1, otherwise=0	0.633	0.482
Age(70-79	If individual's age is 70-79=1, otherwise=0	0.264	0.441
Age (80+)	If individual's age is 80+=1, otherwise=0	0.103	0.304
Sex	If individual's is male=1, otherwise=0	0.474	0.499
Rural	If respondent lives in urban area=1, otherwise=0	0.522	0.500
Urban	If respondent lives in rural area=1, otherwise=0	0.478	0.500
Married	If respondent is married=1, otherwise=0	0.593	0.491
Widowed	If respondent is widowed=1, otherwise=0	0.382	0.486
Others	If respondent is others=1, otherwise=0	0.024	0.153
Hindu	If respondent belongs to Hindu=1, otherwise=0	0.790	0.407
Muslim	If respondent belongs to Muslim=1, otherwise=0	0.082	0.274
Sikh	If respondent belongs to Sikh=1, otherwise=0	0.084	0.277
Other Religion	If respondent belongs to other religion=1, otherwise=0	0.045	0.207
One male child	If respondent's have one male child=1, otherwise=0	0.663	0.473
Two male child	If respondent's have two male child=1, otherwise=0	0.702	0.458
More male child	If respondent's have more male child=1, otherwise=0	0.780	0.414
One female child	If respondent's have one female child=1, otherwise=0	0.679	0.467
Two female child	If respondent's have two female child=1, otherwise=0	0.769	0.421
More female child	If respondent's have more female child=1, otherwise=0	0.797	0.402
Never goes to school	If respondent is illiterate=1, otherwise=0	0.460	0.498
1-4 Years of schooling	If respondent has 1-4 years of schooling=1, otherwise=0	0.128	0.334
5-7 Years of schooling	If respondent has 5-7 years of schooling=1, otherwise=0	0.134	0.341
8+ Years of schooling	If respondent has 8+ years of schooling=1, otherwise=0	0.278	0.448
Lowest wealth index	If respondent's wealth index is low=1, otherwise=0	0.198	0.399
Second wealth index	If respondent's wealth index is second low=1, otherwise=0	0.200	0.400
Middle wealth index	If respondent's wealth index is middle low=1, otherwise=0	0.197	0.398
Forth wealth index	If respondent's wealth index is forth low=1, otherwise=0	0.199	0.399
Fifth wealth index	If respondent's wealth index is high=1, otherwise=0	0.205	0.404
Not currently working	If respondent is not currently working=1, otherwise=0	0.770	0.421
Currently working	If respondent is currently working=1, otherwise=0	0.230	0.421
Not receive pension	If respondent not receives pension=1, otherwise=0	0.856	0.351
Receive pension	If respondent receives pension=1, otherwise=0	0.144	0.351
Good health	If respondent has good health=1, otherwise=0	0.701	0.458
Excellent/ Very good	If respondenthas excellent/very good =1, otherwise=0	0.837	0.369
Fair health	If respondent has fair health=1, otherwise=0	0.635	0.481
Poor health	If respondent has poor health=1, otherwise=0	0.829	0.377
Vision disability	If respondent has vision disability=1, otherwise=0	0.602	0.490
Memory disability	If respondent has memory disability=1, otherwise=0	0.254	0.435
ADL	If respondent needs at least one ADL assistance=1, otherwise=0	0.075	0.263
Never abuse	If respondent is never being abused=1, otherwise=0	0.900	0.300
After 60 year	If respondent is being abused in last one year=1, otherwise=0	0.051	0.220
Abuse in the last month	If respondent is being abused during the last month=1, otherwise=0	0.049	0.216
Number of observation		9849	

Source: Calculated by the researcher using BKPAI individual-level data.

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