



The International Institute of Migration and Development

*Migration of
Adult Children
and Left
behind
Parent's health
and disability:
Evidence from
Tamil Nadu
Survey 2015*

*Madhumita
Sarkar,
Manoj Paul,
Sourav Mandal,
Nuruzzaman
Kasemi*

Migration of Adult Children and Left behind Parent's health and disability: Evidence from Tamil Nadu Survey 2015

June 2021

Working Paper No. 4



IIMAD

THE INTERNATIONAL INSTITUTE OF
MIGRATION & DEVELOPMENT

Author

Madhumita Sarkar, Manoj Paul, Sourav Mandal, Nuruzzaman Kasemi
The International Institute of Migration and Development

Disclaimer

The International Institute of Migration and Development does not have a Centre view and does not aim to present one. Working Papers are the work of IIMAD members as well as visitors to the Institute's events. The analyses and opinions presented in the papers do not reflect those of the Institute but are those of the author alone

Migration of Adult Children and Left behind Parent's health and disability: Evidence from Tamil Nadu Survey 2015

Madhumita Sarkar¹, Manoj Paul² and Sourav Mandal³, Nuruzzaman Kasemi⁴

Abstract

Migration of adult children can have both beneficial and adverse effects on the health outcomes left behind elderly parents. This study intends to investigate the effects of adult children's migration on the perception of health and suffering from disabilities among the left behind elderly in Tamil Nadu, using the Tamil Nadu survey (TMS) data, 2015. The findings demonstrate that the relocation of adult children has a favourable relationship with self-rated health among older people left behind, even if these people are also more likely to have disabilities related to their vision, mobility, cognition, self-care and communication related disability. Positive self-rated health outcomes are linked to an income effect due to the remittance which leads to improvements in diet, financial security, better hygiene and sanitation facility. Out migration of the adult children reduces the number of care givers and helping hand of the elderly which might be the reason of more suffering in vision, mobility, cognition, self-care and communication related disability. Family bonds and relationships need to be strengthened in order to lessen disability suffering and increase the wellbeing of older people who are left behind.

Keyword: Migration, Elderly care, Health, Disability

Introduction

Unemployment, and livelihood issues in rural areas triggered millions of youth to migrate in cities in search of employment by leaving their families behind, which resulted in an increase of left-behind parents in India (Deshingkar & Akter, 2009; Samanta et al., 2015). According to the National Statistical Office (NSO) Elderly in India 2021 report, India's 60-plus population is projected to reach 194 million by 2031, up from 138 million in 2021 (Mishra et al., 2021). The propensity for nuclear families to grow and for parents to live alone or only with their spouse has grown over the years. Older adults living alone or with their spouse increased from approximately 22% in 2011 (Jadhav et al., 2013) to approximately 27% in 2017-18 (IIPS & ICF, 2021). The changing traditional family structure due to out migration of the children (being left behind) is challenging for the elderly population in terms of accessibility to health and care

giving as older adults suffers from multi-morbidity conditions (Centre for Policy on Ageing, 2014; Evandrou et al., 2017; Falkingham et al., 2017).

Evidence from prior literature demonstrates that migration can have both beneficial and adverse effects on the health of those left behind by family members (Antman, 2013; Wickramage et al., 2015, 2018). Receiving remittances facilitates the food consumption, security (Abadi et al., 2018; Mora-Rivera & van Gameren, 2021) and health (Lu, 2013) and nutrition (Thow et al., 2016) of migrants and their left behind families (Gulati, 1993; Kuhn et al., 2011; Roy & Nangia, 2002; Yanovich, 2015) especially left behind elderly. In South Africa, temporary internal migrants could improve the health of their family members, including elderly parents who remained behind, by raising their household income (Kahn et al., 2003). A study in Moldova finds beneficial impact of the migration of adult children on the physical health of elderly family members who stay behind and finds no significant impact on their mental health or cognitive capacity (Böhme et al., 2015). In contrast, both in China and Mexico, the migration of adult children has been found to result in lower self-reported health status among elderly parents (Antman, 2010; AO et al., 2016). Study based on India shows higher risk lifestyle-related chronic disease among the left behind parents due increased loneliness, isolation and the stress caused by children's out-migration (Falkingham et al., 2017). Evidence shows that rising household income from remittances leads higher consumption in energy, fats, salt, and sugar, which associated with poor health condition (Basu et al., 2014).

India has a long history of emigration, with the main source states being Kerala, Tamil Nadu, and Andhra Pradesh (Bhagat et al., 2013) In Tamil Nadu Sectoral wage differentials, high employment opportunity at destination leads to a massive outflow of youth within or out of countries (Amuthan, 2020) especially in Gulf countries (United Arab Emirates, Saudi Arabia, Bahrain, Qatar, Kuwait and Oman and south Asian countries (Singapore). Tamil Nadu Migration Survey 2015 estimated about 2.2 million emigrants, which accounts for 40 percent of total migration, while the number of out-migration is about 1 million (19 percent). Generally, in India there is a negative relation between high out migration and high elderly population in the source region but in the case of Tamil Nadu showing a higher aging population with a significant number of out-migration. Separation of families due to adult child migration might have severe implications on the left behind parents, but the possible health outcomes on elderly left behind in

Tamil Nadu remain under research. This study aims to look at how the elderly in Tamil Nadu who are left behind feel about their health and impairments as a result of their adult offspring leaving. The results of this study will serve to fill a gap in the literature and provide the knowledge required for campaigning and developing useful solutions for the elderly who are left behind.

Data and Methodology:

This paper uses data from Tamil Nadu survey 2015 conducted by Centre for development Studies (CDS). The TMS 2015 survey interviewed 20000 sample household. The number of sample households (HH) in 12 districts is distributed between the district's rural and urban strata in proportion to the number of households according to the 2011 Census. From each selected locality, one ward was selected at random and 50 households were selected from the wards by the systematic random sampling method. This study used elderly (60 + population) scheduled which interviewed 8518 sample collects the data on social costs of migration, elderly left behind with several modules.

Outcome variable:

This study examines several aspects of the health status of elderly parents. These include self-rated health status and disability.

Self-rated health:

Respondents in the survey were asked therate your current status of health. The question had five response categories (Excellent, very good, good, fair, and poor).The authors categorized the response categories into two groups: "good," which included "excellent", "very good" and "good," and "poor," which included "fair" and "poor,".

Suffering from Disability:

Individuals were asked that "Do you suffer from any of these disabilities?"Items measuring symptoms of suffer from any disabilities experienced by elderly persons during the month preceding the survey were: (i) Vision, (ii) Hearing, (iii) Mobility, (iv) Cognition, (v) Self -care, and (vi) Communication. These variables are categorized into two groups: "yes" which coded as

1 and “no” which coded as 0. Further based on seven disability variables we created one composite variable “at least one disability”, which coded 1 and “no disability” as 0.

Explanatory variable:

Status of children out migration:

Respondents in the survey were asked, “How many children are staying with elderly parents “which categorised as 4 groups (i) with you, (ii) within Tamil Nadu, (iii) Within India, (iv) Outside India. The authors categorized the response categories into two groups: “without migrant child” which coded as 0 and “at least 1 migrant child” which coded as 1.

Control variable:

Earlier studies have shown that demographic and socioeconomic variables have strong effects on health status of elderly. Hence we needed to control for their effect to determine the independent effect of migration. Demographic variables included age (60-69 years, 70-79 years, and 80 years and above), sex (male and female), marital status (single, married, widow/widower/divorced/separated), old age pension (yes, no), main source of income (employment, pension, bank interest/rent /property, remittance, others), take care of household (himself/herself, spouse, son/daughter, son/daughter in law, others), currently residing with (with spouse only, with married sons, with married daughters, with unmarried children and others).

Statistical analysis:

Analysis for this study was confined to those who were aged 60 years or above and who had at least one child (n = 8,518). Univariate and bivariate analysis were used to analyze the data. Initially, univariate or descriptive analysis was used to describe the respondents’ socio-demographic characteristics. Two binary logistic regressions were performed to examine the association between adult child migration and health of elderly. Model I explain impact of adult child migration on left behind elderly parents’ health after controlling for the socio-demographic variables. Logistic regression was run separately for each dependent variable. Models were fitted after controlling for age, sex, marital status, Main Source of Income, Old Age Pension, Taken Care of Household, Currently Residing with, Migration status elderly, and Migration Destination

of children. Model II used to determine the factors affecting self-rated health and at least one disability among left behind elderly.

Results

Socio-demographic and economic characteristics of the sample population:

More than half of the sampled respondents were aged 60-69 while about 6% were aged 80 or above. The proportion of male respondents was slightly higher than that of female respondents. Most of the respondents were married, and the large majority of respondents had no pension insurance. Most of the respondents' main source of income is employment. Near about 42% of the household take care by respondent himself/herself and 40% by son/daughter. Near about 50% of the respondents residing with married sons and 25% of the respondents residing with spouse only. About 69 % of elderly has migrated children. Out of them 19 % of elderly was left behind (no children living with them) and 50 % has at least one children living with tem and at least one migrated (Figure 1)

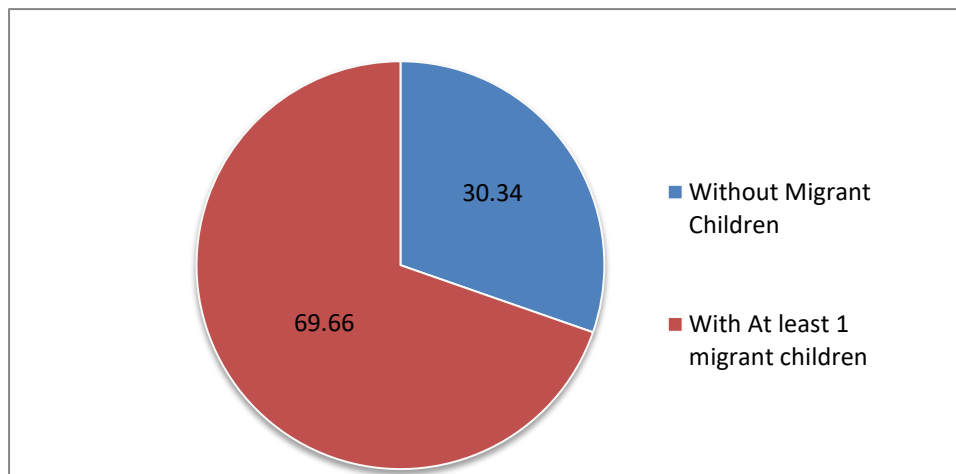


Figure1: Children's migration status of the elderly parents

Table 1: Background characteristics of the elderly parents

	Percentage	Frequency
Age Group		
60-69	69.85	5,950
70-79	23.74	2,022
80+	6.41	546
Gender		
Male	55.55	4,732
Female	44.45	3,786
Marital Status		
Single	0.16	14
Married	65.66	5,593
Widow / Widower/Divorced/Separated	34.17	2,911
Old Age Pension		
No	78.14	6,656
Yes	21.04	1,792
Main Source Of Income		
Employment	37.92	3,230
Pension	17	1,457
Bank Interest/Rent/Property	6	513
Remittance	17	1,430
Others	16.82	1,433
Taken Care Of Household		
Myself	41.93	3,572
Spouse	11.78	1,003
Son/Daughter	40.91	3,485
Son/Daughter-In-Law	3.84	327
Others	1.54	131
Currently Residing With		
With Spouse Only	24.67	2,101
With Married Sons	49.77	4,239
With Married Daughters	6.36	542
With Unmarried Children	13.35	1,137
Others	5.86	499
Total	100	8,518

Health status and Suffering from disabilities

Table 2 shows that most (86.49%) of the respondents rated their health as good, and a higher proportion of respondents with migrant child (88.77%) rated a good health compared with those who without migrant child (82.94%). Furthermore, 29.46% of the respondents with at least one migrant child reported that they suffered from difficulties due to vision, and a slightly lower proportion of respondents without migrant child (24.14%) reported suffered from difficulties in vision. On the other hand, 20.14% of the respondents with at least one migrant child had difficulties in mobility, whereas 14.12% of the respondents without migrant child. Besides, 11.81%, 12.29%, 10.61% of the respondents with at least one migrant child who had facing difficulties in cognition, in self-care, in communication. Whereas respondents with without migrant child were less like to suffer from difficulties in cognition, self- care and communication.

Relationship between adult child migration with self-rated health and disabilities

Table 3 presents binary logistic regression analyses for the association among adult child migration with self-rated health and different disabilities (vision, hearing, mobility, cognition, self care and communication). In the regression models, the reference group of the dependent variable was “without adult migrant child”. Adult Child’s migration was found to have a significant association with health and physical disability of left behind older parents. The results show that the migration of adult child has a positive association with elderly Self rated health and adverse effect on disability in mobility, cognition, self-care and communication, which means a comprehensive effect on their health status. Specifically, those parents who had migrant child were more likely to report difficulties in vision (OR = 1.43; 95% CI 1.28–1.59), in mobility (OR = 1.57; 95% CI 1.39–1.78), in cognition (OR = 1.67; 95% CI 1.42–1.96), in self-care problem (OR = 1.46; 95% CI 1.25–1.70) and in communication (OR = 1.63; 95% CI 1.37–1.92) than those who had no migrant child.

Table 2: Prevalence (in percentage) of self-reported and disabilities of elderly by migration status of their children

Health and disability	Without Migrant children	With at least one migrant children	Total
Self-rated health*			
Poor	18.1	11.5	13.5
Good	81.9	88.5	86.5
Vision*			
No difficulty	75.3	71.5	72.6
Difficulty	24.7	28.5	27.4
Hearing			
No difficulty	86.1	85.6	85.8
Difficulties	13.9	14.4	14.2
Mobility*			
No difficulty	85.6	80.7	82.2
Difficulty	14.4	19.3	17.8
Cognition*			
No difficulty	92.4	88.7	89.8
Difficulty	7.6	11.3	10.2
Self-care*			
No difficulty	90.9	88.1	89
Difficulty	9.1	11.9	11
Communication*			
No difficulty	93	89.9	90.8
Difficulty	7	10.1	9.2
Total	100 (n=2584)	100 (n=5934)	100(n=8518)

*Pearson's Chi-squared test significant at $P < 0.001$.

Table 3: Odds ratio (OR) and 95% confidence interval (CI) for the effect of Adult child's migration on Self rated health and Disabilities of parents based on logistic regression

Dependent Variable	Without adult migrant child= reference category		
	OR	P value	CI
Self-rated Health (ref: Poor health)			
Good Health	1.40	0.00	1.22-1.61
Suffer difficulty in Vision (ref: No)			
Yes	1.43	0.00	1.28-1.59
Suffer difficulty in Hearing (ref: No)			
Yes	1.13	0.06	0.99-1.29
Suffer difficulty in Mobility (ref: No)			
Yes	1.57	0.00	1.39-1.78
Suffer difficulty in Cognition (ref: No)			
Yes	1.67	0.00	1.42-1.96
Suffer difficulty in Self-Care (ref: No)			
Yes	1.46	0.00	1.25-1.70
Suffer difficulty in Communication (ref: No)			
Yes	1.63	0.00	1.37-1.92

Notes: Logistic regression was run separately for each dependent variable. Models were fitted after controlling for age, sex, marital status, Main Source of Income, Old Age Pension, Taken Care of Household, Currently Residing with, Migration status elderly, Migration Destination of children

Model II; determine the socio-economic factor effecting Self Rated Health and Disabilities for left behind parents (Table 4). Result shows that The odds of SRH increasing when household matter is taken care by elderly himself / herself (OR = 2.47; 95% CI 1.95-3.14), or getting remittances (OR = 1.37; 95% CI 1.10-1.71). While odds of SRH decreases with increasing age and living with married daughter (OR = 0.44; 95% CI 0.31-0.64). Contrasting with SRH disabilities was increasing with age, household matter deciding by own or spouse, residing with

married son and daughter. On the other hand the odds of at least one disability among left behind elderly reducing when household matter decided by daughter and receiving remittance.

Table 4: Odds ratio (OR) and 95% confidence interval (CI) for the determinants of Self rated health and Disability among Left behind elderly based on logistic regression

Variables	Self-Rated Health		At least one disability	
	Odd Ratio	CI	Odd Ratio	CI
Age Group (Ref: 60-69)				
70-79	0.36***	[0.30-0.44]	2.38***	[2.10-2.71]
80+	0.22***	[0.17-0.29]	4.56***	[3.60-5.76]
Sex (Ref: Male)				
Sex=2	0.83	[0.68-1.01]	1.12	[0.98-1.28]
Marital Status (Ref: Single/ Ever married)				
Currently Married	0.96	[0.77-1.20]	0.81**	[0.69-0.94]
Take care of household matters (Ref: Son)				
Myself	2.47***	[1.95-3.14]	1.16*	[1.00-1.35]
Spouse	1.16	[0.86-1.56]	1.63***	[1.33-2.00]
Daughter	1.89**	[1.23-2.90]	0.63**	[0.46-0.86]
Son in law	1.09	[0.53-2.24]	1.01	[0.55-1.85]
Daughter in law	1.06	[0.71-1.57]	1.48*	[1.09-2.02]
Brother/sister	0.66	[0.13-3.29]	0.73	[0.18-3.00]
Others	0.53*	[0.28-0.99]	2.20*	[1.20-4.02]
Residing With (Ref: With spouse only)				
With married son	1.15	[0.89-1.49]	1.39***	[1.18-1.63]
With Married daughter	0.44***	[0.31-0.64]	2.25***	[1.69-3.00]
With unmarried children	1.3	[0.92-1.83]	0.95	[0.77-1.17]
With other relatives	0.81	[0.48-1.34]	2.07***	[1.43-2.99]
Others	1.39	[0.79-2.44]	1.04	[0.75-1.44]
Source of income (Ref: others)				
Remittance	1.37**	[1.10-1.71]	0.61***	[0.52-0.71]
Observations	5934			
Exponentiated coefficients; 95% confidence intervals in brackets				
* p<0.05, ** p<0.01, *** p<0.001				

Discussion

This study intended to investigate impact of adult child's migration affected the health and disabilities of their left behind older parents, in Tamil Nadu, where elderly population growing rapidly due to demographic transition. The general trend is that adult children is taken care of elderly, but results that 69% of older persons have at least one kid who migrated outside. Results indicate that the migration of adult children is both positive and adverse effects on left-behind parents' health status (Abas et al., 2009; Adhikari et al., 2011). However, the findings of the present study contrasting with (Adhikari et al., 2011) which found that children's out-migration was associated with poor health status in parents.

Although the left behind elderly, having good health status, however, they have suffered a lot in mobility, self-care, and communication which was similar to the conclusion of other related studies(Gibson et al., 2011; GUO et al., 2009). It is probably because a child's migration reduces opportunities for face-to-face communication between parents and child, which increases isolation and is challenging to address through formal care mechanisms such as hired help(Hadi, 1999; Liu et al., 2021), which is reflected clearly in this study of left-behind parents who suffer most from disability(Miltiades, 2002; Schoeni et al., 2015; Vullnetari & King, 2008).

Several socio-demographic factors including age, Household decision making, living arrangement and source of income were significant predictors of self-rated health and suffering disability in old age. Age was found a significant determinant of self rated health among left behind elderly and it shows that with increasing age, self rated health will decrease and suffering from disabilities will increases. On the whole, the finding is consistent with and supports current wellbeing literature (Blanchflower, 2021; Hansen & Slagsvold, 2012; Neri2 et al., 2016)]. Findings also suggested that elder person who taken care of household matters themselves had better health status than those living under son or another household member headship(Srivastava et al., 2021). They may be able to control their own medical care and treatment for this reason. We also discovered that older people with remittances from their emigrated offspring had better self-rated health than those without remittances.

When analyzing the results of this study, some limitations have been taken into account. First off, due to the cross-sectional design of the study, each element that was examined was

quantified at a single point of time. As a result, this study is unable to determine whether the migration status of an adult child and the handicap of elder parents who are left behind are causally related. Only the statistical link between the two can be demonstrated by the analyses carried out for this study.

Conclusion

This study captures the connection between adult-child migration and the growing elderly population. The research demonstrates that adult children's out-migration is strongly connected with good health and the disabilities of older people left behind. Our results highlight that improvement in personal health (self-rated health) is determined by family structure while the elderly make household decisions. The elderly with migrant children have better subjective health than the elderly with no migrant children, although they have suffered a lot in terms of disability due to the absence of children. Therefore, family ties and relationships need to be strengthened in order to reduce the number of older people who suffer from impairments and to increase their well-being.

Reference

- Abadi, N., Techane, A., Tesfay, G., Maxwell, D., & Vaitla, B. (2018). The Impact of Remittances on Household Food Security: A Micro Perspective from Tigray, Ethiopia. *WIDER Working Paper Series 040, World Institute for Development Economic Research (UNU-WIDER)*, 2018(March), 1–34.
<https://www.econstor.eu/handle/10419/190089%0Ahttps://www.wider.unu.edu/sites/default/files/Publications/Working-paper/PDF/wp2018-40.pdf>
- Abas, M. A., Punpuing, S., Jirapramukpitak, T., Guest, P., Tangchonlatip, K., Leese, M., & Prince, M. (2009). Rural–urban migration and depression in ageing family members left behind. *British Journal of Psychiatry*, 195(1), 54–60.
<https://doi.org/10.1192/bjp.bp.108.056143>
- Adhikari, R., Jampaklay, A., & Chamrathirong, A. (2011). Impact of children’s migration on health and health care-seeking behavior of elderly left behind. *BMC Public Health*, 11.
<https://doi.org/10.1186/1471-2458-11-143>

- Amuthan, S. (2020). Impact of Rural Out-Migration. *Handbook of Internal Migration in India*, June 2020, 198–207. <https://doi.org/10.4135/9789353287788.n14>
- Antman, F. M. (2010). *How Does Adult Child Migration Affect the Health of Elderly Parents Left Behind? Evidence from Mexico*.
- Antman, F. M. (2013). The impact of migration on family left behind. *International Handbook on the Economics of Migration*, 6374, 293–308. <https://doi.org/10.4337/9781782546078.00025>
- AO, X., JIANG, D., & ZHAO, Z. (2016). The impact of rural-urban migration on the health of the left-behind parents. *China Economic Review*, 37(9350), 126–139. <https://doi.org/10.1016/j.chieco.2015.09.007>
- Basu, S., Stuckler, D., McKee, M., & Galea, G. (2014). Nutritional determinants of worldwide diabetes: An econometric study of food markets and diabetes prevalence in 173 countries. *Public Health Nutrition*, 16(1), 179–186. <https://doi.org/10.1017/S1368980012002881>
- Blanchflower, D. G. (2021). Is happiness U-shaped everywhere? Age and subjective well-being in 145 countries. *Journal of Population Economics*, 34(2), 575–624. <https://doi.org/10.1007/s00148-020-00797-z>
- Böhme, M. H., Persian, R., & Stöhr, T. (2015). Alone but better off? Adult child migration and health of elderly parents in Moldova. *Journal of Health Economics*, 39, 211–227. <https://doi.org/10.1016/j.jhealeco.2014.09.001>
- Centre for Policy on Ageing. (2014). Changing family structures and their impact on the care of older people. *Review*, May 2014, 1–63. http://www.ageuk.org.uk/Documents/EN-GB/For-professionals/Research/CPA-Changing_family_structures.pdf?dtrk=true
- Deshingkar, P., & Akter, S. (2009). *Migration and Human Development in India*. <https://mpa.ub.uni-muenchen.de/19193/>
- Evandrou, M., Falkingham, J., Qin, M., & Vlachantoni, A. (2017). Children's migration and chronic illness among older parents 'left behind' in China. *SSM - Population Health*, 3(August), 803–807. <https://doi.org/10.1016/j.ssmph.2017.10.002>

- Falkingham, J., Qin, M., Vlachantoni, A., & Evandrou, M. (2017). Children's migration and lifestyle-related chronic disease among older parents 'left behind' in India. *SSM - Population Health*, 3(March), 352–357. <https://doi.org/10.1016/j.ssmph.2017.03.008>
- Gibson, J., McKenzie, D., & Stillman, S. (2011). THE IMPACTS OF INTERNATIONAL MIGRATION ON REMAINING HOUSEHOLD MEMBERS: OMNIBUS RESULTS FROM A MIGRATION LOTTERY PROGRAM. In *The Review of Economics and Statistics* (Vol. 93, Issue 4).
- Gulati, L. (1993). *In the absence of their men: the impact of male migration on women*. Sage Publications India Pvt Ltd.
- GUO, M., ARANDA, M. P., & SILVERSTEIN, M. (2009). The impact of out-migration on the inter-generational support and psychological wellbeing of older adults in rural China. *Ageing and Society*, 29(7), 1085–1104. <https://doi.org/10.1017/S0144686X0900871X>
- Hadi, A. (1999). Overseas migration and the well-being of those left behind in rural communities of Bangladesh. *Asia-Pacific Population Journal*, Volume 14(Issue 1). <https://doi.org/DOI:https://doi.org/10.18356/cb7d0c96-en>
- Hansen, T., & Slagsvold, B. (2012). The age and subjective well-being paradox revisited: A multidimensional perspective. *Norsk Epidemiologi*, 22(2), 187–195. <https://doi.org/10.5324/nje.v22i2.1565>
- IIPS & ICF. (2021). *National Family and Health survey (NFHS-5)*.
- Jadhav, A., Sathyanarayana, K. M., Kumar, S., & James, K. S. (2013). *Living Arrangements of the Elderly in India: Who lives alone and what are the patterns of familial support?*
- Kahn, K., Collinson, M., Tollman, S., Wolff, B., Garenne, M., & Clark, S. (2003). Health consequences of migration: Evidence from South Africa's rural northeast (Agincourt). *Africa*, 0–26.
- Kuhn, R., Everett, B., & Silvey, R. (2011). The Effects of Children's Migration on Elderly Kin's Health: A Counterfactual Approach. *Demography*, 48(1), 183–209. <https://doi.org/10.1007/s13524-010-0002-3>

- Liu, Y., Wang, J., Yan, Z., Huang, R., Cao, Y., Song, H., & Feng, D. (2021). Impact of child's migration on health status and health care utilization of older parents with chronic diseases left behind in China. *BMC Public Health*, *21*(1), 1–9. <https://doi.org/10.1186/s12889-021-11927-x>
- Lu, Y. (2013). Household migration, remittances and their impact on health in indonesia. *International Migration*, *51*(SUPPL.1), 1–14. <https://doi.org/10.1111/j.1468-2435.2012.00761.x>
- Miltiades, H. B. (2002). The social and psychological effect of an adult child's emigration on non-immigrant Asian Indian elderly parents. *Journal of Cross-Cultural Gerontology*, *17*(1), 33–55. <https://doi.org/10.1023/A:1014868118739>
- Mishra, A. K., Maurya, R. K., Haque, Z., & Verma, D. (2021). Elderly in India 2021. *NSO (2021), Social Statistics Division, Ministry of Statistics & Programme Implementation, Government of India*, 137. [https://mospi.gov.in/web/mospi/reports-publications.%0Ahttp://mospi.nic.in/sites/default/files/publication_reports/Elderly in India 2021.pdf](https://mospi.gov.in/web/mospi/reports-publications.%0Ahttp://mospi.nic.in/sites/default/files/publication_reports/Elderly%20in%20India%202021.pdf)
- Mora-Rivera, J., & van Gameren, E. (2021). The impact of remittances on food insecurity: Evidence from Mexico. *World Development*, *140*, 105349. <https://doi.org/10.1016/j.worlddev.2020.105349>
- Neri2, E. P. M., Lucca, S. R. de, & Liberalesso, A. (2016). *Associations between meanings of old age and subjective well-being indicated by satisfaction among the elderly*. 203–222. <https://doi.org/http://dx.doi.org/10.1590/1809-98232016019.150041> 203 Associations
- Roy, A. K., & Nangia, P. (2002). *Impact of Male Out-migration on Health Status of Left behind Wives -A Study of*. 22.
- Samanta, T., Chen, F., & Vanneman, R. (2015). Living Arrangements and Health of Older Adults in India. *Journals of Gerontology - Series B Psychological Sciences and Social Sciences*, *70*(6), 937–947. <https://doi.org/10.1093/geronb/gbu164>
- Schoeni, R. F., Bianchi, S. M., Hotz, V. J., Seltzer, J. A., & Wiemers, E. E. (2015).

Intergenerational transfers and rosters of the extended family: A new substudy of the panel study of income dynamics. *Longitudinal and Life Course Studies*, 6(3), 319–330.

<https://doi.org/10.14301/llcs.v6i3.332>

Srivastava, S., Singh, S. K., Kumar, M., & Muhammad, T. (2021). Distinguishing between household headship with and without power and its association with subjective well-being among older adults: an analytical cross-sectional study in India. *BMC Geriatrics*, 21(1), 1–12. <https://doi.org/10.1186/s12877-021-02256-0>

Thow, A. M., Fanzo, J., & Negin, J. (2016). A Systematic Review of the Effect of Remittances on Diet and Nutrition. *Food and Nutrition Bulletin*, 37(1), 42–64.

<https://doi.org/10.1177/0379572116631651>

Vullnetari, J., & King, R. (2008). ‘Does your granny eat grass?’ On mass migration, care drain and the fate of older people in rural Albania. *Global Networks*, 8(2), 139–171.

<https://doi.org/10.1111/j.1471-0374.2008.00189.x>

Wickramage, K., Siriwardhana, C., & Peiris, S. (2015). *Issue In Brief Promoting the Health of Left-Behind Children of Asian Labour Migrants: Evidence for Policy and Action*. October.

Wickramage, K., Vearey, J., Zwi, A. B., Robinson, C., & Knipper, M. (2018). Migration and health: A global public health research priority. *BMC Public Health*, 18(1), 1–9.

<https://doi.org/10.1186/s12889-018-5932-5>

Yanovich, L. (2015). *Children Left Behind: The Impact of Labor Migration in Moldova and Ukraine*.

Authors

¹Research Scholar,RaiganjUniveristy,College Para, Raiganj, Uttar Dinajpur, 733134, West Bengal, India. Email: madhumitablgt@gmail.com,

² Research Scholar, International Institute for Population Sciences (IIPS), Govandi Station Road, Deonar, Mumbai, 400088, Maharashtra, India. Email: manojpaul783@gmail.com, ORCID: <https://orcid.org/0000-0002-6841-6104>

³ Research Scholar, International Institute for Population Sciences (IIPS), Govandi Station Road, Deonar, Mumbai, 400088, Maharashtra, India. Email: sm754556@gamil.com, ORCID: <https://orcid.org/0000-0001-8363-3767>

⁴ Professor, Department of Geography, Raiganj University, Raiganj, West Bengal, India. Email: nkasemi@gmail.com, ORCID: <https://orcid.org/0000-0003-4919-3985>

Corresponding author

Manoj Paul

Postal Address: Research Scholar, Department of Migration and Urban Studies,
International Institute for Population Sciences, Mumbai, Maharashtra, 400088, India

Email id: manojpaul783@gmail.com,

ORCID: <https://orcid.org/0000-0002-6841-6104>