# Children's Education as a Predictor of Parents' Successful Ageing: Evidence from India 

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## BACKGROUND

* The relationship between one's own education and health has been extensively explored
* Education of family members has beneficial effect on health of other family members
$>$ Education of spouse have beneficial effect on each other
> Newborn children of educated mothers have comparatively better health condition
$>$ Children's of educated parents tend to exhibit better in terms of health, education, and other aspects.
* Less is known about human capital spillover from children to parents


## BACKGROUND

In recent years, intergenerational transmission of educational benefits from offspring to parents has gained researchers' interest

* In 2002, Zimmer and colleagues, in their study, demonstrated that children's education is strongly associated with parents' functional health
* Since then, few more studies have examined the relationship between offspring educational attainment and parental well-being
* Offspring education has been found to be associated with reduced mortality, increased longevity, better functional health, better self-rated health, reduced odds of depression, and better cognitive health of elderly parents


## BACKGROUND

## How offspring education might affect parental health and well-being

* A number of theories have been presented to explain how social network influence health.
* After analysing these theories and concepts, Berkman and Colleagues proposed four primary pathways through which social networks operate to influence health: (i) provision of social support; (ii) social influence; (iii) social engagement and attachment; and (iv) access to resources and material goods.
* They argued that these pathways and behavioural factors further influence more proximate determinants of health, including (i) direct physiological stress responses, (ii) psychological states and traits including self-esteem, selfefficacy, and security, (iii) health-damaging behaviours (like tobacco and alcohol consumption), and (iv) exposure to infectious disease agents (e.g. HIV, STDs, TB)


## BACKGROUND

* Apart from that, when parents see their children succeed in education and achieve their life goals, they feel a sense of satisfaction and happiness.
* Furthermore, in less developing societies, financial assets are transferred from children to old parents to ensure their financial security.
* Children's wealth can be used to pay for health care, housing improvements, and other amenities that may help the parents maintain their well-being.
* Adult children may exert influence over their parents' health and wellbeing via any combination of the abovementioned mechanisms.


## BACKGROUND

## Successful aging

* Rowe and Kahn postulated the concept of successful ageing describing it as: absence of chronic diseases and disability, high cognitive and physical functioning, and better social and productive engagement.
* Hidden components of successful aging:
$>$ Regular exercise and physical activity
$>$ Healthy eating habits and a balanced diet
$>$ Engaging in preventive health measures such as regular check-ups and vaccinations
$>$ Intellectual stimulation through lifelong learning, reading, and other mental activities.
$>$ Maintaining an active social life and participating in social activities


## BACKGROUND

## Continued...

> Adequate sleep and managing stress levels effectively
> Nurturing positive relationships with family, friends, and community members
$>$ Being involved in social activities, such as volunteering, participating in community events, and joining clubs or organizations
$>$ Engaging in activities that promote personal growth and self-reflection
$>$ Continuing education, acquiring new skills, and staying intellectually curious are important for personal growth and maintaining cognitive abilities.
$>$ Embracing change, adapting to new circumstances, and maintaining a positive outlook
$>$ Accessing educational opportunities, whether formal or informal, should be encouraged across all stages of life.

## BACKGROUND

## Indian Context

* India is greying rapidly.
* According to the 2011 census, 8.6 per cent ( 103 million) of the total population was aged $60+$ years. With an annual growth rate of approximately 3 per cent, the elderly population aged 60 years and above is expected to rise to 319 million in 2050, accounting for around 19.5 per cent of the total population.
* India is a diverse, pluralistic society and has a rich family culture. Indian families have strong familial bonds and coresidence of parents and children is common.
* Hence the intergenerational transfer of educational mileage from children to parents can be expected in Indian context


## RATIONALE

* In the absence of institutional and public support, and savings, intergenerational support might have immense importance for older parents' health and well-being. Hence, it is important to explore whether having educated children is beneficial to parents' well-being
* We have selected successful ageing as our outcome variable because it is and umbrella indicators encompassing major dimensions of older adults' well-being.
* Therefore, this study examines the association between children's educational attainment and parents' successful aging in India while keeping the gender dimension in mind.



## DATA

* First wave of the Longitudinal Ageing Study in India (LASI), 2016-17, data were utilized to meet the objectives of the study
* Individuals aged less than 60 years were excluded from the sample.
* Childless individuals were also dropped from the study. After dropping respondents with missing and invalid information on children's education, final sample size for this study was 28,649 older adults


## Variable description

* Our outcome variable was successful aging


## DATA

* The outcome variable for this study was successful aging, a binary variable coded as 0 for "not successful aging" and 1 for "successful aging".
* This variable was constructed based on Rowe and Kahn's concept of successful aging, with five components:
(1) absence of chronic diseases,
(2) no disability,
(3) high cognitive ability,
(4) absence of depressive symptoms
(5) active social engagement


## DATA

## Primary predictor variable

* Primary Independent variable: Our primary predictor variable was offspring education
* In previous studies, various methods have been used to assess the offspring education such as:

1. Education of the eldest child
2. Proportion of children with college education
3. Education of the highest educated child, and
4. Mean years of schooling of all children

* In this study we used education of the highest educated child approach to analyze the relationship between offspring education and parents' successful aging.
* Years of education of the highest educated child was our primary predictor variable


## METHODS

* Simple univariate and bivariate analyses were conducted to gain insights into the characteristics of the study population and the prevalence of successful ageing based on various background factors.
* Then, multivariable logistic regression models were developed to examine the association between offspring education and parents' successful ageing.
* Interaction analysis was performed to investigate whether the relationship between offspring education and parents' successful ageing varies depending on the child's and parent's sex.
* All statistical analyses were performed on STATA-16 software.


## RESULTS

* The percentage of successful ageing was higher among older adults residing in urban areas (32\%), the northeastern region of India (38\%), and those with higher education (47\%).
* Overall, $25 \%$ of the study population was classified as successful agers.

RESULTS


## RESULTS

Table-1: Results of logistic regression analysis examining the relationship between offspring education and parents' successful aging

|  | Model-1 |  | Model-2 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Odds Ratio | 95\% CI | Adj. Odds Ratio | 95\% CI |
| Education of the highest educated child | $1.08 * * *$ | 1.07-1.09 | 1.03 *** | 1.02-1.04 |

Model-1: crude (bivariate)
Model-2: Adjusted for age, sex, religion, caste, education, place of residence, marital status, socioeconomic status, region, and, living arrangement,

## RESULTS

Table-2: Results of logistic regression analysis examining the relationship between offspring education and parents' successful aging

|  | Model-1 |  | Model-2 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Odds Ratio | 95\% CI | Adj. Odds Ratio | 95\% CI |
| Education of the highest educated child |  |  |  |  |
| No education | 1.00 | - | 1.00 | - |
| 1-5 years | 1.32** | 1.12-1.56 | 1.11 ns | 0.93-1.32 |
| 5-6 years | 2.04*** | 1.80-2.32 | 1.40*** | 1.23-1.61 |
| 11-12 years | $2.41^{* * *}$ | 2.11-2.75 | 1.39*** | 1.21-1.61 |
| 13-15 years | 2.89*** | 2.54-3.29 | 1.45*** | 1.26-1.68 |
| 16 years and above | 4.19*** | 3.67-4.78 | 1.79*** | 1.53-2.08 |

## Model-1: crude (bivariate)

Model-2: Adjusted for age, sex, religion, caste, education, place of residence, marital status, socioeconomic status, region, and, living arrangement,

## RESULTS

Table-3: Results of interaction analysis assesing interaction between education of the child and sex of the parent

|  | Model-1 |  |
| :---: | :---: | :---: |
|  | AOR | 95\% CI |
| (1)Education of the highest educated child | 1.03*** | 1.02-1.04 |
| (2) Sex of the parent |  |  |
| Male | 1.00 | - |
| Female | 0.59*** | 0.51-0.69 |
| (1)\#\#(2) |  |  |
| (1)\#Father | 1.00 | - |
| (1)\#Mother | 1.01 ns | 0.99-1.02 |

- According to the interaction estimate, the relationship between children's education and parents' successful ageing did not differ depending on the sex of the parents


## RESULTS

Table-4: Results of interaction analysis assesing interaction between education of the child and sex of the child

|  |  |  |  | Model-1 |
| :--- | :---: | :---: | :---: | :---: |
| (1)Education of the highest educated child | AOR | $\mathbf{9 5 \% ~ C l}$ |  |  |
| (2) Sex of the child | $1.03^{* * *}$ | $1.02-1.04$ |  |  |
| Male |  |  |  |  |
| Female | 1.00 | - |  |  |
| (1)\#\#(2) | 0.96 ns | $0.83-1.12$ |  |  |
| (1)\#son |  |  |  |  |
| (1)\#daughter | 1.00 | - |  |  |

${ }^{* * *}$ p-value $<0.001,{ }^{* *}$ p-value $<0.01,{ }^{*}$ p-value $<0.05$, ns: not significant

- Again we can see that the interaction term is insignificant indicating that the examined relationship did not differ depending on the sex of the children

RESULTS


## CONCLUSION

* For a gradually aging society like India, where welfare system is not as efficient as in western countries and per capita income is too low for savings, the findings of our study are crucially significant, as they imply that children's education may be beneficial to older parents' well-being.
* Investing in higher education of the upcoming generation may not only benefit the new generation but also the older generation as well.
* The results also suggest that it is not only the education of sons that relate to parents' health and well-being, but daughters' education also has equal importance.


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## Thank you for your attention

