

Does Social Capital explain Neighbourhood Heterogeneity in Health Outcomes among Older Adults in India?

by

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Abstract:

Social Capital theory is increasingly being looked at as a valuable paradigm to understand if community characteristics influence health behaviors and outcomes. This requires understanding of the forms in which social capital manifests and levels at which it operates. Employing multilevel analysis to SAGE India data, we attempt to estimate the extent of neighborhood variation in health outcomes of older adults that can be explained with social capital. Also, the association between different forms of social capital (constructed based on Richard Carpiano's framework) and health outcomes are examined. Results show that community level social capital variables collectively explain 12.81 percent unexplained neighbourhood variation in self-rated health, 2.5 percent variation in psychological wellbeing and 11.32 percent variation in ability to perform activities of daily living respectively. The findings highlight the role social capital plays in serving as a coping mechanism for the older adults to survive deteriorating health and social exclusion and calls for conscious investment in building social capital.

Keywords: Social Capital, Neighbourhood Effects, Older Adults, Health Outcomes, Multilevel Analysis

1. Background

Behavioral health outcomes among people can be explained not only by their individual characteristics but also by the characteristics of the area in which they live. A social construct that is increasingly being researched to explain homogeneity among the health behaviour of people living in same neighbourhoods is social capital.(Lochner et al., 2003)

In simple terms, social capital can be understood in terms of the groups and networks among people and the underlying norms, values and trust that result in beneficial outcomes for the members of these groups. (Putnam(1995), Bourdieu(1986))Scholastic discussion in public health and economics has presented evidence of association between social networks and numerous behavioural health outcomes. It has been studied for smoking and drinking (Carpiano, 2008), mental health (Kawachi & Berkman, 2001), maternal and child health outcomes (Story, 2014), HIV related health behaviors (Lippman et al., 2018) and mortality (Lochner et al., 2003) among others.

However, most of these research is based in developed and high-income countries. Study of association between health behaviours and outcomes has been very limited in developing

countries. In Indian context, an age cohort for which studying such association is of utmost relevance and importance are the elderly. According to a recent report, the Indian elderly population is projected to be 32 crores in absolute numbers by the year 2050. Old age is accompanied by ailments and diseases and as ill health and disability takes over the risk of becoming socially disconnected rises. Growth in elderly population in India is coupled with urbanization and changing living arrangements wherein nuclear family set-ups are on rise. Women of the household who traditionally provided long term care for elderly are moving to job market.

Amidst the withering of joint family institutions and the increasing social isolation being faced by the elderly, strengthened social capital can serve as a coping mechanism for them to cope with deteriorating health, social isolation, and loneliness.

A multidimensional approach is needed to gain an insight into how the different dimensions of social capital manifest and influence elderly health. One such comprehensive approach that delineates neighbourhood social capital across several dimensions to study its influence on health is provided by Richard Carpiano(2005) which forms the theoretical base of the current study.

This paper examines which measures of neighbourhood social capital are associated with health-related outcomes across older adults in India. Also we estimate the extent to which neighbourhood variation in health outcomes among older adults in India can be explained with community social capital.

2. Methods

Data:

Present Study utilizes data from Wave 1 of the WHO-Study of Global Ageing and Adult Health (SAGE). The survey conducted in 2007-2008 used a multistage stratified cluster sampling design and included a nationally representative sample 11230 individuals from the states of Assam, Karnataka, Maharashtra, Rajasthan, Uttar Pradesh, and West Bengal. The analytical sample size for this study was 6560 individuals (aged 50 or older) nested in 375 neighbourhoods in 6 States.

Measures:

The study examines three binary health outcome namely self-rated health, psychological wellbeing and ability to do activities of daily living, all constructed using surveyed items. The primary explanatory variable of interest for this analysis is neighbourhood social capital. The construct of the variables is in accordance with Carpiano's Theory. Variable constructed at level one i.e. individual level is neighbourhood attachment while level two variables i.e. neighborhood level variables include structural antecedent conditions; social cohesion and social capital which has four forms namely social support, neighborhood organization participation, social leverage, and informal social control.

Demographic and socioeconomic factors that have been shown to affect elderly health were included in the analysis. These include age, gender, level of education, marital status, social groups, religion and wealth quintile.

Statistical Analysis:

We fit a series of multilevel logistic regression models for each health outcome beginning with a null model. The second model includes community level social capital variables and is compared with null model to gauge the unexplained neighborhood variation being explained by the community social capital variables. A third model i.e. full model is run which includes all community level as well as the demographic and socio-economic covariates. The fixed part of the full model is used for studying the association between health outcomes and different forms of social capital among elderly.

3. Results and Discussion

Fixed part of multilevel logistic regression shows neighbourhood attachment and social cohesion to be positively associated with all forms of health outcomes. This confirms that sense of belongingness and being loved and cared for in a network, social engagement and person to person contact increases the health benefits of social capital.

Social leverage is found to be negatively associated with self-rated health and with ability to do activities of daily living. Social leverage is expected to promote health through conveying information about access to local services and amenities,(Kawachi & Berkman, 2001), however it can also be the case that unhealthy norms and practices, rooted in culture are spread as part of leverage. This is consistent with an important aspect of Bourdieu's theory—that social capital can produce negative (as well as positive) consequences (Carpiano, 2007).

Social control is positively associated with psychological wellbeing. It reflects on the perceptions of the respondents regarding safety in neighbourhood. Perceived sense of security in neighbourhood has positive impact on mental health.

Lastly, neighbourhood organisation participation is negatively associated with psychological wellbeing. Social capital enables the group to organize and to undertake collective action to ensure access to services such as transportation, community health clinics, or recreational facilities, which are directly relevant to health. A negative association found here might reflect the inability to capture the construct well with the given data.

A comparison between the Null Model and the model with community social capital variables allows us to estimate the contribution of community social capital variables in explaining the unexplained contextual neighbourhood variation. Figure 1 presents the comparison between variances attributed to neighbourhoods from the two models across different health outcomes.

The graph shows null model estimates of neighbourhood level variation in health outcomes to be 16.71 percent, 22.78 percent and 12.19 percent respectively for self-rated health, psychological wellbeing and ability to do activities of daily living. When accounted for the community level social capital variables, the respective percentages fall to 14.56 percent, 22.2 percent and 10.81 percent. The contribution of neighbourhood to the total variation is attenuated by community social capital variables.

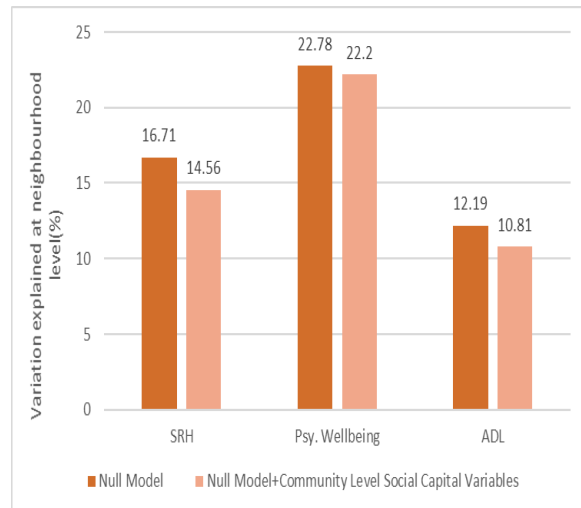


Figure 1: Neighborhood variation, expressed as a percentage of total variation across health outcomes.

Community level social capital variables collectively explain 12.81 percent unexplained neighbourhood variation in self-rated health, 2.5 percent variation in psychological wellbeing and 11.32 percent variation in activities of daily living respectively. Thus it can be inferred that community social capital is one of mechanisms operating at the level of neighbourhoods that may help explain the neighbourhood-level variation in health outcomes

4. Conclusion and Policy Implications:

In last two decades, social capital theory has been looked at as a valuable paradigm to gain the understanding of the interactions between community socioeconomic factors and behavioral health outcomes. This study is a contribution to the continued exploration of social capital as a relevant social determinant of health and health related outcomes.

The findings of the study put forward the case that social capital can serve as a key instrument for health promotion and vouches for conscious investments in social capital. While attempting to build interventions to strengthen social capital, the socio-economic characteristics of not only the individuals but also of the community must be considered. However, for designing effective interventions, further research is needed to understand the concrete pathways through which social capital impacts the health outcomes.

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