

Introduction and Motivation.

Verbrugge and Jette (1994) present a model of disablement whereby functional limitations mediate the pathway between pathologies/impairments and disability, which is posited to be moderated by both environmental and personal factors. This paper poses the following research question: Does the disablement process among Chinese elderly differ from that observed among US seniors (Lawrence and Jette 1996; Peek et al. 2003)? Were disablement simply a biological process, we would have no reason to expect that it would. However, to the extent that we understand disability to be a social phenomenon, that is, difficulty in acting “in necessary, usual, expected and personally desired ways in [one’s] society”, we might find that differences in political-economic conditions, family/household environments, daily activities, and expectations for physical abilities shape processes of disablement and strength of any moderating factors differently across cultures. On the other hand, these factors may only shape the extent of (but not the process of) disability or impact of moderating factors. This paper tests the model of disablement proposed by Verbrugge and Jette (1994) and follows closely, in terms of analytic strategy and measures, the study performed Peek et al. (2003) in their investigation of the disablement process among Mexican-American seniors. The paper’s conceptual model is diagramed in Figure 1 below.

Data. This paper utilizes data from two waves of the Chinese Longitudinal Healthy Longevity Study (CLHLS). In order to examine the disablement process, the sample is restricted to people who were alive at time two (2002) and reported no disability at baseline (2000). In other words, the assumption is that any process of disablement that decedents experienced did not systematically differ from their surviving counterparts. This choice of sample allows for a focus on disability (rather than on mortality associated with disability, for example). The resulting analytic sample size is 4214 (after reserving an additional hold-out sample of 500).

Measures. The *outcome* variable of disability at time two is as a continuous variable measured by the summary score of the number of reported ADL limitations (0-6). *Risk factors* include age, sex, marital status, education, urban-rural residence, and perceived economic conditions. *Pathologies* are heart disease, high blood pressure, stroke, arthritis, respiratory disease, cataracts, and diabetes. There are measures for both *upper body functional limitations* (difficulty putting either hand behind neck, difficulty putting either hand behind lower back) and *lower body functional limitations* (difficulty standing from a chair, difficulty turning 360 degrees). The potential moderating environmental factor in the link between functional limitations and disability is a dichotomous variable representing coresidence with adult children. The potential personal factor postulated to moderate disability is a sense of optimism as reported on a scale of 1-5 (1 being the most optimistic).

Hypotheses and Method. Using LISREL, structural equation models are estimated to test the hypotheses that (a) *functional limitations moderate the relationship between impairments and disability among a sample of Chinese elderly*; (b) *one external (coresidence) factor moderates disability among a sample of Chinese elderly*; (c) *one internal (optimism) factor moderates disability among a sample of Chinese elderly*. The polychoric option in PRELIS and weighted least squares is used address the presence of both ordinal, dichotomous, and continuous data.

Results and Limitations of the Study. Preliminary analyses have thus far yielded descriptive statistics of the main sample, as presented below. Limitations of the study include the fact that elderly people who have died during the two waves are excluded from the study. To the extent that the process of disablement was different among decedents compared to survivors, results will be biased.

References

- Lawrence, Renee H., and Alan M. Jette. 1996. "Disentangling the Disablement Process." *Journal of Gerontology Series B: Social Sciences* 51B: S173-S182
- Peek, M. K., Kenneth J. Ottenbacher, Kyriakos S. Markides and Glenn V. Ostir. 2003. "Examining the Disablement Process among Older Mexican American Adults." *Social Science & Medicine* 57(3):413-425.
- Verbrugge, Lois M., and Alan M. Jette. 1994. "The Disablement Process." *Social Science and Medicine*, 38:1-14.

Table 1. Characteristics of Sample for Respondents with No ADL Disability at Baseline^a

Factor	Descriptive Statistic
<i>Pathology/Impairments</i>	
% Heart disease	6.67
% High blood pressure	16.91
% Stroke	1.67
% Arthritis	13.62
% Respiratory disease	11.40
% Cataracts	7.93
% Diabetes	1.00
<i>Functional Limitations</i>	
% Difficulty standing from chair	4.9
% Difficulty turning 360 degrees	17.95
% Difficulty putting either hand behind neck	2.8
% Difficulty putting either hand behind lower back	3.09
<i>Disability at Time 2^b</i>	
Mean number of ADL limitations	.44 (range: 0-5)
<i>Intra-individual Factor</i>	
“I tend to look on the bright side of things.”	2.10 (range 1-5; 1=most optimistic)
<i>Extra-individual Factor</i>	
% Residing with family	78.13
<i>Risk Factors</i>	
Mean age,	83.36 (range:78-115)
% Female	61.92
% Married	27.39
% No education	64.67
%Rural residence	84.85
<i>Self-perceived financial condition</i>	
% Reporting sufficient finances	77.43
% Reporting somewhat sufficient finances	15.63
% Reporting insufficient finances	6.94
<i>N</i>	

Source: CLHLS 2000-2005

^a Weighted means and percentages

^b 12.8 % of respondents developed a disability in the second wave of data

^c 23.6% of respondents developed a disability in the third wave of data

The Disablement Process

(Verbrugge and Jette 1994)



