

Community participation of non-working older adults with and without disability: The relationship with perception of the neighborhood environment

abstract
205525



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INTRODUCTION

- Great disparities exist in health and community participation for older adults, particularly for those living with disability. Although these disparities have been well documented, it is unclear how much of health and participation is shaped by a person's environment.
- A recent review of the literature identified few studies that evaluated community participation in relation to the environment. Of those identified, most involved mobility limitations and the physical built environment.¹
- Components of the social environment are hypothesized to be crucial determinants of people's participation in daily life activities. Subjective measures of neighborhood trust, belonging, and reciprocity have been shown to be associated with lower rates of mortality,^{2,3} better mental health,⁴ and better self-rated health.⁵
- The relationship of older adults' perceptions of their neighborhood with community participation has not been examined and the differences for those with and without disabilities are unknown.

PURPOSE

- To examine whether a positive perception of the neighborhood environment was associated with community participation for non-working older adults with and without limitations in instrumental activities of daily living (disability).

METHODS

Data Source

2006 Southeastern PA (SEPA) Household Health Survey

- Conducted every other year to obtain the resident's perspective of health and health care in the region
- Telephone-administered questionnaire (in English or Spanish) of community-dwelling adults and children
- Landline phone numbers only. Random digit-dial methodology.
- 5 SEPA counties: Bucks, Chester, Delaware, Montgomery, and Philadelphia
- In 2006 adults ages 60+ years were over-sampled
- Balancing weight provided by PHMC was used to adjust for sampling bias and retain the sample size of the survey

Outcome: Community Participation

- Participation in any of the following in the last year:
 - activity programs at senior centers or senior clubs
 - 1 or more local groups or organizations (i.e., social, political, religious, school-related, or athletic organizations)

Neighborhood Environment Survey Items

- Feeling a part of the neighborhood
- Having trust in neighbors
- Willingness of neighbors to help others
- Willingness to work together to improve the neighborhood
- A composite neighborhood score was also created (additive of the individual items, ranging from 0-4) to assess a less versus more positive perception

Sample

Exclusion Criteria

3,219 community dwelling older adults in 2006 dataset

Excluded: 25.5% (822 older adults) considered "working"

- Reported to be employed full- or part-time, unemployed but looking for work, or were full-time students or in job training
 - Excluded because conceptually, employment would introduce additional opportunities for community participation that were not measured in the survey

Final sample: 2,397 older adults

Measure of Disability

No Disability: Able to perform without help all 7 instrumental activities of daily living (use the telephone, get to places out of walking distance, shop, prepare meals, do housework, take medications, and handle money)

Disability: Need help or dependent for any 1 or more of the above activities

Analysis

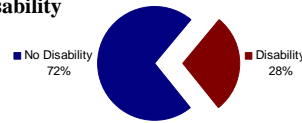
- Descriptive statistics for the full sample
- Chi square and t-test to compare persons with and without disability
- Unadjusted and adjusted odds of participation by disability calculated using logistic regression (adjusted model include person factors significant with the outcome and the balancing weight)

RESULTS

Demographics for the full sample of Non-working Older Adults in SEPA

- Mean age 73.2 ± 7.9 years; Range in age: 60-100 years
- 69.1% Female, 73.6% White, 20.3% Black, 4.1% Hispanic
- 95.2% reported chronic illness
- 10.2% diagnosed with a mental health condition
- 13.4% reported signs of major depression

Disability

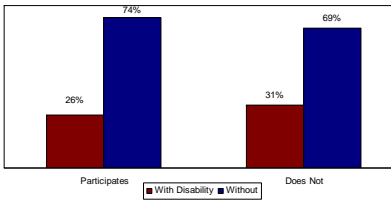


Differences by Disability

Person Factors: All significantly different at p<0.0001

PERSON FACTORS	With Disability (n=671)		Without (n=1,726)	
	%	%	%	%
Sex: Females	77.8	65.7		
Age: 75+ years	55.9	38.6		
Race: Non-White	35.5	22.9		
Ethnicity: Hispanic or Latino descent	6.6	3.1		
Education: High school diploma or less	67.1	55.6		
Chronically Ill	98.4	94.2		
Assistive Device: User	83.7	50.1		
Mental Health: Diagnosed Condition	16.0	8.0		
Health Status: Poor or Fair	60.9	27.4		
Depression: Signs	25.0	9.2		

Are older adults with disability less involved in the community? Yes (significant at p=0.007)



Unadjusted Odds of Community Participation by Disability

PERSON FACTORS	With Disability		Without	
	UOR (95% CI)	UOR (95% CI)	UOR (95% CI)	UOR (95% CI)
Sex: Males	0.78 (0.5-1.2)	0.74 (0.6-0.9)*		
Age: 60-74 years	0.73 (0.5-1.0)	0.98 (0.8-1.2)		
Race: White	1.22 (0.8-1.8)	0.87 (0.7-1.1)		
Education: College or higher	1.77 (1.2-2.6)*	1.95 (1.6-2.4)*		
No Chronic Illness	0.26 (0.1-1.1)	0.88 (0.6-1.4)		
No Mental Health	0.82 (0.5-1.3)	0.98 (0.7-1.5)		
Depression: ≤3 Signs	1.1 (0.7-1.7)	1.82 (1.2-2.7)		
Health Status: Good-Excellent	1.5 (1.0-2.1)*	1.51 (1.2-1.9)*		
No Assistive Device	0.99 (0.6-1.6)	0.93 (0.7-1.2)		
NEIGHBORHOOD SUPPORT				
Neighborhood: Neighbors willing to help	1.06 (0.7-1.6)	1.65 (1.3-2.2)*		
Improvement: Neighbors work together	1.51 (1.1-2.1)*	1.70 (1.4-2.1)*		
Belonging: Feel a part of neighborhood	1.15 (0.7-1.8)	1.73 (1.2-2.5)*		
Trust: Neighbors can be trusted	0.82 (0.6-1.2)	1.39 (1.1-1.8)*		

*significant at p<0.05

Is a more positive perception of the neighborhood associated with community participation?

NEIGHBORHOOD	With Disability		Without Disability	
	UOR (95% CI)	AOR (95% CI)	UOR (95% CI)	AOR (95% CI)
More positive perception of the neighborhood	1.05 (0.9-1.2) p=0.45	1.60 (1.3-1.9) p<0.0001		
More positive perception of the neighborhood	1.33 (1.2-1.5) p<0.0001	1.39 (1.2-1.6) p<0.0001		

Adjusted for age, sex, race, education, depression, health status

Final Model Examining Neighborhood Environment Items with Community Participation

- Older adults with disability (needing assistance or dependent for instrumental activities of daily living) who felt a part of their neighborhood and felt their neighbors were willing to work together to improve the neighborhood were more likely to participate in local programs, groups or organizations.
 - Older adults with disability who reported good-excellent health status were more likely to participate.
- Belonging and neighborhood improvement also increased the likelihood of participation for older adults without disability. In addition, feeling that neighbors were willing to help others increased the likelihood of participation in local programs, groups and organizations.
- Females and older adults with higher education were more likely to participate regardless of disability.

PERSON FACTORS	With Disability		Without	
	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)
Sex: Males	0.59 (0.4-0.9)*	0.68 (0.5-0.9) [‡]		
Age: 60-74 years	0.89 (0.6-1.3)	0.88 (0.7-1.1)		
Race: White	1.10 (0.7-1.7)	0.80 (0.6-1.1)		
Education: College or higher	2.43 (1.6-3.7) [‡]	2.00 (1.6-2.6) [‡]		
Depression: ≤3 Signs	0.77 (0.5-1.2)	1.44 (0.9-2.2)		
Health Status: Good-Excellent	1.71 (1.1-2.6)*	1.13 (0.9-1.5)		
NEIGHBORHOOD SUPPORT				
Neighborhood: Neighbors willing to help	1.32 (0.8-2.2)	1.44 (1.1-2.0)*		
Improvement: Neighbors work together	2.15 (1.4-3.3) [‡]	1.41 (1.1-1.8) [‡]		
Belonging: Feel a part of neighborhood	3.50 (1.7-7.0) [‡]	1.66 (1.1-2.6)*		
Trust: Neighbors can be trusted	0.80 (0.5-1.3)	1.13 (0.8-1.6)		

*p<0.05; [‡]p<0.01; [§]p<0.001 (p<0.001 is in Stata p=0.000)

CONCLUSIONS

- Disparities in community participation exist for older adults with disabilities.
- Older adults with disabilities are significantly different from those without disabilities on several demographic characteristics and factors indicating health status.
- Specific neighborhood supports were associated with community participation.
- A more positive perception of the neighborhood increased the likelihood of community participation in this sample of older adults.

Study's Scientific Contribution
A positive perception of the neighborhood environment is associated with engagement in the community for non-working older adults with chronic conditions with and without disability.

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ADDITIONAL INFORMATION

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ACKNOWLEDGMENT

This work was supported by a Switzer Research Fellowship awarded to Dr. Prvu Bettger from the National Institute of Disability and Rehabilitation Research (NIDRR), United States Department of Education (grant no. H133F080014). Its contents are solely the responsibility of the author and do not necessarily represent the official views of the funding agency.