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COMMUNITY INVOLVEMENT AND SELF-RATED HEALTH STATUS: FINDINGS FROM A CROSS-SECTIONAL SURVEY IN CENTRAL SYDNEY

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A sense of community and community involvement are said to have positive effects on health status; however, research supporting such associations is inconclusive. This article uses data from the 1998 NSW Health Survey—an annual telephone survey of approximately 17,000 residents throughout the State—to investigate the association between sense of community and community involvement and self-reported health. Other variables including physical activity, smoking, alcohol consumption, and socio-demographic characteristics, were also examined for their relationships with self-reported health.

BACKGROUND

'Participation' has long been a central tenet of primary health care.[1] Participation can vary from token representation to group membership to full–equal partnership in controlling community organisations, and is regarded as one of the key principles of health promotion.[2,3] Having a sense of community and community involvement are said to have positive effects on health but research supporting such associations is inconclusive.[4–7]

Involvement in community organisations and activities is one form of participation that has received attention in the United States (US) and more recently in Australia as an element of social capital.[8,9] Community psychology research in the US supports the idea that participation in neighborhood action groups contributes to an increased sense of community and

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that both participation and sense of community are associated with improved health.[10]

Sense of community has been measured as feelings of belonging to a neighbourhood or local area and is consistent with interpretations of social capital that focus on community trust, norms, and networks.[11]

Australian research has also identified some correlates of participation in resident action groups and also some predictors of successful group outcomes.[12] However, no quantitative Australian research has demonstrated an association between community involvement or sense of community and health.

To contribute to the debate on the effects of community participation on health, this study examined the association between sense of community and community involvement and self-reported health.

METHODS

The dataset was extracted from the 1998 NSW Health Survey via the Health Outcomes Information and Statistical Toolkit (HOIST), which is maintained by the Centre for Epidemiology and Research, NSW Department of Health.[13,14] The dataset contains 880 study subjects aged 16 years or older who were resident in Central Sydney Area Health Service (CSAHS). Variables assessed included socio-demographic characteristics, smoking status, weight status, level of physical activity, and alcohol risk level as well as sense of community and community involvement (Table 1). The study outcome variable—self-reported health status—was assessed on a five-level Likert scale. The questions about sense of community and community involvement were based on similar questions used in US research on participation in community action groups and modified for use in a telephone survey.[15,16] They are based on the theory that sense of community encourages participation and that participation is a positive outcome in its own right, which is assumed to be associated with better health.[10] The single-item indicator for self-reported health has been widely accepted as a good predictor of mortality in many studies,[17] and has been used in the NSW Health Survey as one of the key questions for monitoring population health status.[14]

Prevalence estimates of study variables were weighted for the probability of selection based on the household size and number of telephone lines, and also for age and sex structure of the resident population of CSAHS based on the 1996 Census data.[14] In recording study variables of level of sense of community and level of community involvement, respondents who reported 'a great deal', 'quite a lot' or 'moderately' to the sense of community question were recoded as 'having some sense of community'. The rest were recoded as 'having little sense of community'. Similarly, the respondents were categorised as either 'having been involved in the community', including 'moderately' or 'very', or 'having not been involved in the community'. The study outcome variable of health status was recoded as either 'poor to fair' or 'good to excellent'. Unconditional logistic regression analysis was conducted to examine the factors that might be associated with self-reported health at multivariate levels with all variables entered in a single step without checking any of the entry criteria except tolerance. Data were analysed using SPSS for Windows 10.0, a computer program for the social sciences.

TABLE 1

ASSESSMENT OF SENSE OF COMMUNITY, COMMUNITY PARTICIPATION AND HEALTH STATUS, 1998 NSW HEALTH SURVEY

To what extent do you feel a sense of community with other people in the neighbourhood where you live? Would you say:

1. a great deal
2. quite a lot
3. moderately
4. a little
5. not at all
6. don't know.

Over all, how involved are you in community or social groups? Would you say:

1.very involved
2 moderately involved
3. slightly involved
4. not involved at all
5. don't know.

In general, would you say your health is

1. excellent
2. very good
3. good
4. fair
5. poor.

Source: Population Health Division. 1998 NSW Health Survey (HOIST). Sydney: Centre for Epidemiology and Research, NSW Department of Health.

RESULTS

The response rate to the 1998 NSW Health Survey was 66.3 per cent in residents of the CSAHS.[14] Of 880 study subjects, 46 per cent were males and 54 per cent were females, with mean ages of 42 and 44 respectively. Forty two per cent were either married or living with a partner. A little more than half of respondents (51 per cent) were working full time and three quarters (75 per cent) had finished secondary and tertiary education. Most (72 per cent) reported speaking English at home. Approximately half of the respondents reported having some sense of community (50 per cent), or having been involved in the community (46 per cent) (see Table 2). Spearman's rho correlation coefficient between sense of community and being involved in the community was low (0.304). Additional findings include: 22 per cent of respondents

TABLE 2

MULTIVARIATE LOGISTIC REGRESSION: FACTORS ASSOCIATED WITH SELF-REPORTED HEALTH STATUS OF 'POOR TO FAIR'

Factors	Characteristics of study sample	Multivariate logistic regression analysis: (Having reported 'poor to fair' health status)			
	Weighted % (*N* = 880)	%	OR*	95% CI	*P*
Sense of community					
Having some	49.9	14.6	1		
Having little	50.1	16.4	1.12	0.58–1.28	0.46
Community involvement					
Being involved	46.4	15.4	1		
Not involved	53.6	17.2	1.09	0.63–1.37	0.71
Gender					
Male	46.1	15.4	1		
Female	53.9	15.7	1.10	0.73–1.66	0.649
Age in groups					
16–30	32.4	12.4	1		
31–40	21.6	7.4	0.64	0.32–1.26	0.19
41–50	21.6	20.5	1.94	1.05–3.55	0.03
51–60	11.8	14.2	1.45	0.67–3.14	0.34
>60	12.5	30.9	3.66	1.34–4.96	0.01
Marital status					
Married–with partner	42.4	11.7	1		
Widowed	5.8	26.1	1.17	0.56–2.45	0.68
Separated–divorced	11.8	21.4	1.34	0.76–2.39	0.31
Never married	40.0	16.2	1.36	0.84–2.22	0.21
Education level					
Up to Year 10	23.9	20.8	1		
HSC–TAFE	35.5	15.0	0.81	0.75–1.94	0.45
Tertiary	40.5	11.3	0.78	0.76–2.08	0.38
Employment					
Full–time	51.1	8.5	1		
Part–time	12.2	16.4	2.30	1.30–4.10	0.01
Unemployed	3.1	18.9	2.28	0.89–5.85	0.09
Home duties	6.5	13.0	1.73	0.74–4.04	0.21
Student	12.2	13.8	1.90	0.95–3.80	0.07
Retired	10.5	32.0	2.43	0.92–6.42	0.07
Others	4.4	62.3	11.2	5.01–25.02	0.00
Language spoken at home					
English	72.4	15.3	1		
Other than English	27.6	16.4	1.53	1.01–2.33	0.05
Smoking status					
Non smoker	70.6	12.6	1		
Smoker	29.4	22.5	2.20	1.46–3.33	0.001
Alcohol risk level					
Nil	21.2	21.1	1		
Low	56.7	12.7	0.73	0.46–1.16	0.19
Hazardous	14.8	14.2	0.95	0.51–1.80	0.89
Harmful	7.4	23.9	0.89	0.40–2.01	0.78
Level of physical activity					
Adequate	64.4	13.1	1		
Not adequate	32.7	18.5	1.67	1.14–2.45	0.03
Weight status					
BMI≤25	64.5	12.3	1		
BMI>25	35.5	18.6	1.57	1.07–2.32	0.02

Note: * odds ratio was adjusted for other variables in the table.

Source: Health Promotion Unit, Central Sydney Area Health Service.

reported drinking alcohol at hazardous and harmful levels, 29 per cent were smokers, 36 per cent were overweight and 33 per cent were physically inactive.

Table 2 also shows that both sense of community and community involvement are not associated with self-reported health status. The study variables of age, employment status, language spoken at home, smoking status, weight status and level of physical activity are independently and significantly associated with self-reported health after controlling for the other variables in the model.

Compared with younger people aged 16 to 30 years, the adjusted odds ratio for reporting 'poor to fair' health status was 1.94 (95 per cent CI 1.06–3.55) for people aged 41 to 50 and 3.66 (95 per cent CI 1.34–4.96) for people over 60 years.

Compared with those working full time, people working part time had a higher chance of reporting poorer health, with an adjusted odds ratio of 2.30 (95 per cent CI 1.30–4.10), as did people speaking a language other than English at home (adjusted OR 1.53 with 95 per cent CI 1.01–2.33).

In addition, people who were smokers (adjusted odds ratio of 2.20, with 95 per cent CI 1.46–3.33), overweight (adjusted odds ratio of 1.57 with 95 per cent CI 1.07–2.32) or physically inactive (adjusted odds ratio of 1.67 with 95 per cent CI 1.14–2.45) are significantly more likely to report poorer health.

DISCUSSION

This analysis found no evidence supporting an association between community involvement and self-reported health. The factors associated with self-reported health are age, employment status, language spoken at home, smoking status, weight status, and level of physical activity. People who are aged 41 to 50 years or over 60 years, work part time, speak a language other than English at home, smoke, are overweight, or are physically inactive are significantly more likely to report their health status as 'poor' or 'fair'.

The results are consistent with Veenstra's study,[7] which concluded that civic participation was unrelated to self-reported health. Both studies focused on individual attributes. Most social capital studies that have reported associations with health have, however, examined the association between community involvement and community level indicators of health status such as all cause or disease-specific mortality rate.[4] It may be that associations between community involvement or social capital and health are detectable when communities rather than individuals are the unit of analysis.

In the Australian context it may be that general 'participation' in civic life does not affect health. The culture of volunteering and nature of participation in the United States differs markedly from that in Australia.[18] Therefore, it may be important to specify what sort of participation leads to better health and to consider whether our current approaches to measurement of participation are adequate. The issue of international comparisons also raises the question of whether social capital is a cross-cultural construct, although Putnam would argue that it is.[8]

The results are limited by the cross-sectional study design that limits the findings of any causal relationship. It was not possible to obtain information about other variables that might play important roles in community participation or health, such as social support and trust. Also, individuals and groups may need to collaborate on shared activities before any benefits of this involvement manifest as health improvements.

Without any group level data available, the analysis could not adjust for any possible contextual effects. Given that the type of community is likely to modify community involvement (for example, affecting the number of organisations in the community), it is highly likely that any conclusions based on this analysis are committing a psychologistic fallacy (that is, assuming that individual-level outcomes can be explained exclusively in terms of individual-level characteristics).[19] This highlights the importance of health surveys collecting group-level data as well as individual data, so that appropriate multi-level analyses can be done.

CONCLUSION

We found no evidence of a relationship between community involvement and self-rated health status. We recommend that future efforts to study this association use communities or groups as the unit of analysis and that more effort goes into developing adequate indicators of participation and sense of community. It may be that the sorts of indicators being examined at the individual level are appropriate: for instance, membership in community, political, social and hobby organisations; number of organisations belonged to; level of responsibility or activity as a member; and length of membership.[12] However, aggregating these data at a meaningful social level—perhaps local government area, town, or region—may better reflect how social participation affects sense of community and health.

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