Self-reported health beliefs of government housing tenants

VALERIE CLARKE, SALLY SAVAGE, BARBARA HANNA, AND HELEN COX

Valerie Clarke is Associate Professor of Psychology,
Sally Savage is a Research Fellow in the Faculty of Health and Behavioural Sciences,
Barbara Hanna is a Senior Lecturer in the School of Nursing at Deakin University, and
Helen Cox is Chair of Contemporary Nursing at Epworth Hospital and Deakin University.

Abstract

Our aim was to provide a description of the self-reported health beliefs of a sample of Victorian public housing tenants, and to identify how gender, age and geographic location relate to these beliefs. Telephone interviews were conducted with a stratified random sample of 360 tenants, asking questions such as what they believe are the major health problems for men and women, what they do to keep healthy, and what makes it difficult to keep healthy. There were many differences in the beliefs held by older participants compared with those of younger participants. By asking about health in general, rather than specific aspects of health, this research identified the views about health which are most salient to participants, rather than those prompted by a survey on a particular disease or health behaviour. The health promotion implications of these findings are discussed.

Factors related to health beliefs and behaviours

The importance of the relationship between health related beliefs and health behaviours on a conceptual level is demonstrated by the fact that health beliefs play a significant role in many theoretical models which explain health protective behaviours or changes in health-related behaviours in individuals (Rimer 1997; Weinstein 1993). People's exposure to health promotion activities, and their perception of the personal relevance of health promotion messages, are influenced by their own views or beliefs about health in general (Davison *et al* 1992). By obtaining information about such views it is possible to ascertain how previous health messages have been received by the community, and to inform future health promotion activities. People are presented with a large number of health messages from which to select those they will attend to and those they will ignore. It is important to examine what people believe to be important for their health, what they believe the major health problems are, and what they should do to maintain their health. Generally people recall messages they see as relevant or as consistent with their own beliefs and behaviours (Lingle *et al* 1980).

When examining health beliefs and behaviours, it is essential to be aware of a range of factors which are known to be associated with health. There is evidence that socioeconomic status, gender, age, and geographic location are all relevant, but little is known about differences between these groups in the beliefs held about health.

Socioeconomic Status

Data derived from national statistics indicate that there are differences by socioeconomic status (SES) in mortality, morbidity and health behaviours which favour higher SES levels (Turrell and Mathers 2000). Information on any differences in health beliefs held by SES groups in Australia is less available.

Gender

There are clear gender differences in morbidity and mortality rates. At birth, an Australian woman can expect to live an average of 81 years while an Australian man can expect to live an average of 75 years (Australian Institute of Health and Welfare 2000). About two years of this six-year male disadvantage can be explained by biological factors, while the remaining difference is believed to be the product of lifestyle differences (Verbrugge 1989). Although men are dying younger than women, women experience higher rates of morbidity and different patterns of morbidity from men (Australian Bureau of Statistics 1999; Verbrugge 1989). In overseas research there is some evidence that women and men have different approaches to health (Saltonstall 1993), and there are differences in their health experiences (Wyke *et al* 1998).

Age

Health experiences relate to age (Wyke *et al* 1998), as certain health problems and health seeking behaviours are age-related. For example, Australian women aged 50 - 70 years are recommended to have a free screening mammogram every two years while screening mammograms are not recommended for women under 40 years.

Geographic Location

There are differences in the health status of Australians, depending on their geographic location. Australians living in rural and remote areas, for example, experience greater death rates from all causes, and higher rates of coronary heart disease and injury, compared with those from metropolitan areas (Australian Institute of Health and Welfare 2000; 1998). Australia is divided into four geographic areas: metro, urban, rural and remote. The present research examines differences between residents of urban and rural areas.

Our study

As a means of addressing the problem of individuals from a lower SES being frequently under-represented in research, this project surveyed only people of a lower SES. It investigated their views and behaviours regarding their health in general and provides unprompted information on health beliefs. Within this lower SES group, the effects of gender, age, and geographic location on the beliefs held were examined.

This research differs from most studies as it examines the beliefs held about health in general. Most health research focuses on a single health problem or behaviour. The aims of this study were to provide an overview of health beliefs and health promoting behaviours of a sample of Victorian public housing tenants and to identify how gender, age, and geographic location impact on these beliefs and behaviours. A recent study of the health needs of public housing tenants in the Hunter region (NSW) concluded that public housing tenants are one of the more severely health compromised groups in Australia (Wiggers *et al* 2001).

Method

Data Collection

Data were collected using a structured telephone interview. Each participant was offered $10 for completing an interview. The interview schedule contained 53 questions. Most questions used an open-ended format, but had pre-coded responses. Interviews were conducted in December 1999 and February 2000. Each interview took approximately 15 minutes. Given the large amount of data collected in this survey, the self-reported health behaviours of the sample are not included here. This paper reports on the beliefs held by this group, including responses to open questions on what participants believe it means to be healthy, perceptions of the major health problems for men and women, what participants do to keep healthy, what makes it difficult to keep healthy, and things they do that might be bad for their health. What people say they do about their health reflects what they believe is important in maintaining or impeding their health.

Sample

The sample of 360 participants was obtained by phoning persons listed in the Department of Human Services (DHS) database of government housing tenants in one non-metropolitan region of the state of Victoria. It was planned to have a stratified random sample of 400 participants, stratified on age (50% younger aged 20-40 years, and 50% older aged 50-70 years), sex (50% male and 50% female) and geographical location (65% metropolitan and 35% rural).

Results

Response Rate and Description of the Sample

The percentage of potential participants willing to be interviewed was 53% but, due to unavailability of interviewers at times nominated by the interviewees, the obtained response rates for different strata of the sample varied from 24% (older males in regional city) to 52% (younger females in regional city). Overall, the interview rates were slightly higher among females (41%) than males (34%), and slightly higher for the younger (41%) than older (33%) persons, while there was little differences between the metropolitan (36%) and rural (38%) samples. The demographic characteristics of the 360 participants are presented in Table 1.

Table 1: Demographic Characteristics of the Sample

Demographic characteristic		Frequency	(Percentage)
Age	20 - 29 yrs	50	(14%)
	30 - 39 yrs	100	(28%)
	40 - 49 yrs	24	(7%)
	50 - 59 yrs	83	(23%)
	60 - 69 yrs	95	(26%)
	70 - 79 yrs	8	(2%)
Education	Primary only	31	(9%)
	Yrs 7 - 8	92	(25%)
	Yrs 9 - 10	128	(36%)
	Yr 11	47	(13%)
	Yr 12	33	(9%)
	TAFE	22	(6%)
	University	7	(2%)
Marital status	Never married	65	(18%)
	Separated, not divorced	34	(9%)
	Divorced	71	(20%)
	Widowed	28	(8%)
	De facto	35	(10%)
	Married	127	(35%)
Employment	Employed full time	38	(11%)
	Employed part time / casual	38	(11%)
	Not employed	284	(79%)

Meaning of Health

Health means different things to different people, and is not always defined by the general public in the same way as by health professionals. To find out what participants meant by the term "health", they were asked what it meant to them to be healthy, how they rated their own health, and why they rated it that way. As multiple responses were allowed to the open questions, the sum of some percentages exceeds 100.

Being healthy had a variety of meanings, with many respondents giving several suggestions. Responses to this open question were classified as: being physically well (39%), being able or fit to do what I want to do (45%), being well enough to do what I need to do (18%), not having any major illnesses (16%), being happy or having a positive attitude (14%), and eating well (13%). Six per cent or fewer replied being active, health means everything, being independent, having a long life, exercising, and not needing medical attention.

Most participants rated their present health as good (45%) or excellent (11%), with 26% rating it as fair, and 18% as poor. They were asked why they rated their health as excellent, good, fair or poor. The proportion of all participants who gave positive responses were: having no major illnesses or health problems (25%), feeling healthy or fit (25%), feeling okay or pretty good (20%), having a healthy diet (13%), exercising regularly (11%), having only minor problems (10%), not needing much medical attention (8%), having the freedom to do what I want (7%), keeping active (2%), and do not drink or smoke (2%). Less positive responses included: having chronic health problems (23%), always having some health problem (9%), being overweight (7%), not feeling really well (5%), a lack of exercise (4%), and smoking (4%).

Beliefs About Health Problems

People's beliefs about common health problems may vary in accuracy. In order to find out what the respondents considered to be the major health problems, they were asked two open-ended questions: What are the three major health problems for women? What are the three major health problems for men? Table 2 presents the responses. Breast cancer was most frequently mentioned as a health problem for women (61%), followed by cervical cancer (23%), unspecified cancer (20%), and heart disease (15%). Prostate cancer was the most frequently mentioned health problem for men (42%), followed by heart disease (38%), alcoholism (24%), and unspecified cancer (23%). Participants were also asked if they themselves had any health problems, and 249 (69%) indicated that they did. For these participants, the main health problem mentioned was arthritis (21%), followed by asthma (16%), back problems (16%), blood pressure (16%), and heart problems (13%).

Table 2: Major Health Problems for Women and Men (N = 360)

Major health problems for women		Major health problems for men	
Breast cancer	61%	Prostate cancer	42%
Cervical cancer	23%	Heart disease	38%
Cancer (unspecified)	20%	Alcoholism	24%
Heart disease	15%	Cancer (unspecified)	23%
Obesity / overweight	14%	Smoking	19%
Stress	14%	Obesity / overweight	17%
Mental illness	13%	Lung cancer	11%
Osteoporosis	12%	Stress	11%
Menopause	10%	Mental illness	7%
Gynaecol. Problems	9%	Arthritis	6%
Smoking	9%	Poor exercise / diet	6%
Diabetes	6%	Stroke	5%
Alcohol and drugs	5%	Bowel cancer	5%
Social issues	4%	Blood pressure	4%
Lung cancer	3%	Diabetes	4%
Tiredness	3%	Cholesterol	4%
Arthritis	3%	Respiratory probs	3%
Stroke	1%	Back problems	3%
Other	17%	Drugs	2%
		Skin cancer	1%
		Other	15%

Group differences in beliefs about health problems

For each of the independent variables of sex (male/female), age (50 years and over classified - older, 49 years or less - younger) and location (urban/rural) a series of cross-tabulations with associated chi-square values was completed using SPSS. The results for the analyses examining differences by sex and age are presented in Table 3. There was only one significant difference by geographic location - heart disease was more likely to be mentioned as a major health problem for men by participants from the rural areas (χ^2 (1, n = 360) = 6.00, $\underline{p} < .01$).

Table 3: Differences in Major Health Problems Reported by Sex and Age (N = 360)

	Sex		Age	
Variable (% mentioned in total sample)	Males	Females	Older	Younger
Major health problems for women				
Breast cancer (61%)	59%	62%	55%	67%
Cervical cancer (23%)	21%	26%	18%	29%*
Cancer (unspecified) (20%)	17%	24%	25%	15%*
Heart disease (15%)	13%	17%	20%	10%*
Obesity / overweight (15%)	15%	13%	9%	19%*
Stress (14%)	9%	18%	14%	13%
Mental illness (13%)	9%	16%	17%	8%*
Osteoporosis (12%)	12%	12%	15%	9%
Menopause (10%)	8%	12%	14%	6%
Major health problems for men				
Prostate cancer (42%)	32%	51%**	31%	52%**
Heart disease (38%)	34%	41%	41%	33%
Alcoholism (24%)	23%	24%	21%	26%
Cancer (unspecified) (23%)	22%	24%	22%	26%
Smoking (19%)	23%	16%	14%	25%*
Obesity / overweight (17%)	15%	19%	11%	23%*
Lung cancer (11%)	13%	9%	12%	10%
Stress (11%)	10%	12%	10%	11%

* $p < .01$ ** $p < .001$

Fewer men than women mentioned prostate cancer as a major health problem for men. The older participants were more likely than the younger group to mention cancer (unspecified), heart disease, and mental illness as major health problems for women, and prostate cancer as a major problem for men. The younger group was more likely to mention cervical cancer and obesity as problems for women, and smoking and obesity as problems for men.

Health-related behaviours

A series of open questions asked participants: what they do to keep healthy; what makes it difficult to keep healthy; and what kinds of things they do that might be bad for their health. Although these items report on behaviour, they have been included in this paper as they reflect the beliefs held by individuals as to what type of behaviour promotes health, or is bad for their health (See Table 4). Exercising regularly was most often cited as what is done to keep healthy (58%), followed by a healthy diet (42%), and exercising sometimes (18%). An existing health problem was mentioned most frequently (34%) as what makes it difficult to keep healthy. The things participants mentioned which might be bad for their health included smoking (47%), dietary issues such as eating junk food (30%), and drinking alcohol (20%). When asked how hard they work at keeping healthy, 13% responded very hard, 38% fairly hard, 38% not very hard, 11% not at all, and less than 1% did not answer this question.

Table 4: Health-Related Behaviours (N = 360)

Things done to keep healthy		Things that make it difficult to keep healthy		Things done that might be bad for health	
Exercise regularly	58%	Health problems	34%	Smoking	47%
Healthy diet	42%	Lack of time	13%	Dietary issues	30%
Exercise sometimes	18%	Lack of motivation	11%	Drink alcohol	20%
Keep active	11%	Family responsibilities	11%	Lack of exercise	9%
Moderate eating	9%	Dietary issues	11%	Stress / worry	8%
Not smoking	7%	Stress / worry	8%	Over-eating	7%
Don't drink (much)	7%	Cost	8%	Lack of sleep	3%
Drinking water	5%	Long work hours	6%	Long work hours	3%
Go to doctor reg.	3%	Smoking	4%	Other	15%
Gardening / hobby	3%	Ageing	4%		
Relax / meditation	2%	Unhealthy environment	4%		
Adequate sleep	2%	Lack of sleep	4%		
Other	14%	The weather	2%		
		Other	12%		

Table 5 presents differences in the responses to these three items by sex and age. There were no differences by geographic location. In relation to what they see as personal actions that are good or bad for their health, men are less likely to volunteer that they eat a healthy diet and more likely to suggest that they drink alcohol. The older group was more likely to mention health problems as something that makes it difficult to keep healthy, but less likely than the younger group to mention a lack of time, lack of motivation, family responsibilities or dietary issues as making it difficult to keep healthy. The older group also mentioned smoking and dietary issues less often than the younger group as things done that might be bad for their health.

Table 5: Differences in Health Related Behaviours Reported by Sex and Age (N = 360)

Sex	Age			
Variable (% mentioned in total sample)	Males	Females	Older	Younger
Things done to keep healthy				
Exercise regularly (58%)	62%	53%	56%	60%
Healthy diet (42%)	30%	54%**	36%	48%
Exercise sometimes (18%)	18%	17%	17%	19%
Keep active (11%)	11%	12%	10%	13%
Things that make it difficult to keep healthy				
Health problems (34%)	37%	31%	46%	21%**
Lack of time (13%)	9%	17%	4%	22%**
Lack of motivation (11%)	12%	9%	7%	15%*
Family responsib. (11%)	6%	15%*	5%	16%**
Dietary issues (11%)	8%	13%	7%	15%*
Things done that might be bad for health				
Smoking (47%)	51%	43%	36%	58%**
Dietary issues (30%)	30%	30%	23%	37%*
Drink alcohol (20%)	31%	10%**	16%	25%

* $p < .01$ ** $p < .001$

Discussion

This paper reports on the health beliefs of a lower SES sample, and describes differences between groups based on sex, age, and geographic location. The fact that only 10.5% of the sample were in full-time employment and only 2% had a university education support the contention that this is a low SES sample.

The meaning of health

Health is varyingly defined, with some people defining it in the more negative sense of the absence of disease (that is, not needing the services of health care professionals), and others focussing on their ability to carry out daily activities. These respondents primarily defined health in the more positive terms of being able to do the things they wanted to do. For many participants their personal health was seen as less than optimum when they were asked to subjectively evaluate it, with 44% reporting their health as "fair" or "poor". This is similar to the 40% giving these ratings in a previous survey of public housing tenants (Wiggers et al 2001). In comparison, a national survey reported only 15% of people aged 18 years and over rated their health as poor or fair (Lingle et al 1980). Consistent with the participants' general view of the meaning of health, the reasons provided for their subjective health evaluations tended to reflect feelings of health and well-being (54%) and engaging in healthy behaviours (28%) to a greater extent than they reflected an absence of illness (25%).

Perception of major health problems

The responses provided acknowledge the importance of heart disease as a health problem for both men and women. However, apart from heart disease, the respondents place an undue emphasis on breast cancer, cervical cancer and obesity for women, and on prostate cancer for men. It may be that the "problems" that are being most frequently mentioned are the ones which are being most heavily promoted or discussed in the media. If this is the case, it indicates the power of the mass media to provide information to people of lower SES.

It is of some concern that colorectal cancer was not listed as a major health problem for men or for women, given that it is the second most common cancer among both men and women, excluding non-melanocytic skin cancers (Australian Institute of Health and Welfare 2000). An earlier Victorian study reported a lack of information in the community about colorectal cancer, which is consistent with the present finding (Thomas and Clarke 1998). It is possible that these questions have been interpreted somewhat differently by some individuals. However, the use of open questions in the current study has highlighted the health problems which are most salient to participants, and shortfalls in the community's awareness of some major health problems, such as colorectal cancer.

Interestingly, there is no correspondence between the problems mentioned in response to the question about personal health problems and the problems mentioned as the major health problems for women or men. In general, the problems mentioned for women and men tend to reflect the onset of disease while those seen as personal health problems are chronic ailments. The discrepancy in the general-self responses may indicate a categorisation in people's thinking which differentiates between their general knowledge about the health of the community, possibly gained from the media, and their personal experience of their own health. Such differentiation has implications for health education and health promotion.

Health-Related Behaviours

The open-ended question asking people what they did to keep healthy was clearly interpreted by the respondents as asking about daily lifestyle behaviours only (exercise, diet), and not including biomedical behaviours (vaccinations, tests for high blood pressure or cholesterol, or screening tests). In terms of keeping healthy the primary focus was on exercise and activity which was mentioned by 87% of the sample (exercise regularly, exercise sometimes, keep active), while varying aspects of diet were also mentioned by most persons (56%) (healthy diet, moderate eating, drinking water). The factors identified as making it difficult to keep healthy may be realistic (health problems - if serious; lack of time - if part of the 10.5% that is employed) or may be interpreted as excuses for the low priority given to keeping healthy (lack of time, lack of motivation, family responsibilities). Despite this being a low SES sample, cost was mentioned by only 8% as a factor making it difficult to keep healthy, and other resources issues were not volunteered. Not surprisingly, the major things that are reported as bad for one's health are smoking (47%), dietary issues (30%) and drinking alcohol (20%).

There were almost no differences in the beliefs expressed by urban compared with rural participants, and few differences between males and females. The beliefs expressed by the older participants differed considerably from those expressed by the younger participants. This suggests that health promotion strategies may need to take account of the differing issues faced by people of various ages.

Conclusions

This research provides a rare insight into the overall health-related beliefs of a lower SES sample. It should be acknowledged however that without a comparison higher SES group, it is not certain that the findings are specific to the lower SES group. It is clear from the findings that participants have received the information content of a broad range of health promotion messages. They are aware for example, that smoking, drinking too much, eating too much fat and not exercising are bad for their health. Actual behaviours reported indicate some behaviours which are clearly not health promoting, for example a higher rate of smoking than the national average. Participants showed a tendency to report diseases which receive substantial media coverage as the major health problems for women and men, rather than those which they themselves experience or which are statistically more common. The numerous differences in the views expressed by the different age groups indicate different experiences in relation to health in general.

These findings should indicate some future directions for health promotion. For example, the large proportion of smokers in this group, and the general awareness of the impact of smoking on health, suggest a need for programs tailored to assisting individuals to quit smoking rather than simply emphasising the risks associated with smoking. Others may argue that such factors as the social and economic deprivation experienced by this sample underlie behaviours like smoking, and that a systemic approach is needed rather than an individual approach. The low awareness of colorectal cancer suggests a lack of knowledge of this disease, and that a more broadband social marketing campaign, providing information on the prevalence of this disease and preventive strategies, is required. The high rates of mammography screening among women in this group indicate that the promotion strategies used have been successful, and could be adopted to promote other health behaviours.

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References

Australian Bureau of Statistics 1999, *'The Australian Year Book',* ABS, Canberra.

Australian Institute of Health and Welfare 2000, *'Australia's health 2000'*, AIHW, Canberra.

Australian Institute of Health and Welfare 1998, *'Australia's health 1998'*, AIHW, Canberra.

Davison D, Frankel S & Davey Smith G 1992, 'The limits of lifestyle: Re-assessing 'fatalism' in the popular culture of illness prevention', *Social Science & Medicine*, vol 34, no 6, pp 675-685.

Lingle J H & Ostrom T M 1981, 'Principles of memory and cognition in attitude formation', in R E Petty, T M Ostrom, & T C Brock (eds) *Cognitive responses in persuasion*, Lawrence Erlbaum Associates, Hillsdale, New Jersey.

Rimer B K 1997, 'Models of individual health behavior', in K Glanz, F M Lewis & B K Rimer (eds) *Health behavior and health education. Theory, research and practice* (2nd ed, pp 37-40). Jossey-Bass Publishers, San Francisco.

Saltonstall R 1993, 'Healthy bodies, social bodies: Men's and women's concepts and practices of health in everyday life', *Social Science & Medicine*, vol 36, no 1, pp 7-14.

Thomas R J & Clarke V A 1998, 'Colorectal cancer: A survey of community beliefs and behaviours in Victoria', *Medical Journal of Australia*, vol 169, pp 37-40.

Turrell G & Mathers C D 2000, 'Socioeconomic status and health in Australia', *The Medical Journal of Australia*, vol 172, pp 434-438.

Verbrugge L M 1989, 'The twain meet: Empirical explanations of sex differences in health and mortality', *Journal of Health and Social Behaviour*, vol 30, pp 282-304.

Weinstein N D 1993, 'Testing four competing theories of health-protective behavior', *Health Psychology*, vol 12, pp 324-333.

Wiggers J, Radvan D, Clover K, Hazell T, Alexander J & Considine R 2001, 'Public housing, public health: Health needs of public housing tenants', *Australian and New Zealand Journal of Public Health*, vol 25, pp 111-114.

Wyke S, Hunt K & Ford G 1998, 'Gender differences in consulting a general practitioner for common symptoms of minor illness', *Social Science & Medicine*, vol 46, no 7, pp 901-906.